City of St. Peters, Missouri
One St. Peters Centre Boulevard
P. O. Box 9
St. Peters, Missouri 63376

Request for Statement of Qualifications and Proposal for Engineering Services

Purpose:	The City of St. Peters is seeking proposals from qualified Consulting Engineering Firms to provide professional engineering services to perform all required investigations and analysis, and prepare plans and specifications for the rehabilitation and widening of the Mexico Road at Dardenne Creek Bridge.
RFQ No.	23-119 – Mexico Road at Dardenne Creek Bridge Rehabilitation & Widening (STP 4950(605))
Available	February 9, 2023
Deadline for Submissions:	2:00 p.m. local time, February 23, 2023 (**Non-Public Opening**) Late or faxed qualifications will be rejected.
Submit Proposal To:	Purchasing City of St. Peters One St. Peters Centre Blvd. P. O. Box 9 St. Peters, MO 63376

Special Instructions:	• A DBE goal of 10% has been established for this project
	• Clearly mark outside of sealed envelope with "RFQ No. 23-119 – Mexico Road at Dardenne Creek Bridge Rehabilitation & Widening (STP 4950(605))" along with the Consultant's name
	• Submit 1 original and 3 copies of your proposal
	• With submittal of your firm's Letter of Interest include:
	  ○ Statement of Qualification (RSMo 8.285 – 8.291)
	  ○ Affidavit of Compliance with the Federal Work Authorization Program (Original must be included)
	  ○ Copy of your E-Verify Memorandum of Understanding (MOU) (15 CSR 60-15.020)

Direct All Inquiries to:	bids@stpetersmo.net with "23-119 – Mexico Road at Dardenne Creek Bridge Rehabilitation & Widening (STP 4950(605))" in the subject line. The last time for questions is before noon local time, February 16, 2023.

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ADVERTISEMENT FOR PROPOSALS

The City of St. Peters is seeking qualifications for the 23-119 – Mexico Road at Dardenne Creek Bridge Rehabilitation & Widening (STP 4950(605))" until 2:00 p.m. local time, February 23, 2023. This will be a Non-Public opening. The purpose of this project is to provide construction phase services and prepare all required plans and specifications required to acquire needed property rights and bid the rehabilitation and widening of the Mexico Road at Dardenne Creek Bridge.

The RFQ can be received by sending a request to Bids@stpetersmo.net and specifying in the subject line 23-119 – Mexico Road at Dardenne Creek Bridge Rehabilitation & Widening (STP 4950(605))", or by obtaining at City of St. Peters, One St. Peters Centre Boulevard, St. Peters, Missouri 63376 beginning February 9, 2023.

If your firm would like to be considered for providing these consulting services, please prepare a Technical Proposal. This proposal should include any information which might help us in the selection process, such as the persons or team you would assign to each project, the backgrounds of those individuals, and other projects your company has recently completed or are now active. The proposal shall be submitted in quadruplicate, in a sealed package, and clearly marked with the Consultant's name and City of St. Peters – 23-119 – Mexico Road at Dardenne Creek Bridge Rehabilitation & Widening (STP 4950(605)). The proposal must be received by the City of St. Peters Purchasing Department by 2:00 p.m., local time, February 23, 2023.

All questions regarding the project and proposal submittal are to be submitted via e-mail to Bids@stpetersmo.net and specify in the subject line 23-119 – Mexico Road at Dardenne Creek Bridge Rehabilitation & Widening (STP 4950(605)), or by mail to City of St. Peters, One St. Peters Centre Boulevard, St. Peters, Missouri 63376 before noon local time, February 16, 2023.

The City of St. Peters will evaluate firms based on a) experience and competence, b) the capacity of the firm to perform the work in the timeframe needed, c) past performance.

Once a proposal is selected, a contract will be negotiated, with the firm, based on a mutually agreed upon scope of services. This project has received federal reimbursement funding through the Surface Transportation Block Grant Program (STPS) administered by the East-West Gateway Coordinating Council of Governments. A DBE goal of 10% has been determined by Missouri Department of Transportation for the Preliminary Engineering portion of the project.

DBE firms must be listed in the MRCC DBE Directory located on MoDOT's website at www.modot.gov, in order to be counted as participation towards an established DBE Goal. We encourage DBE firms to submit proposals as prime consultants for any project they feel can be managed by their firm.

It is required that your firm's Statement of Qualification (RSMo 8.285 through 8.291) and an Affidavit of Compliance with the federal work authorization program along with a copy of your firm's E-Verify Memorandum of Understanding (15 CSR 60-15.020) be submitted with your firm's technical proposal and with your firm's Letter of Interest. It is also required that your firm be prequalified with MoDOT and listed in MoDOT's Approved Consultant Prequalification List.

The City reserves the right to waive any informality and to accept the proposal most advantageous to the City.

GENERAL INFORMATION
FOR ENGINEERING SERVICES
23-119 MEXICO ROAD AT DARDENNE CREEK BRIDGE REHABILITATION & WIDENING (STP 4950(605))

1.0 GENERAL

The City of St. Peters, hereinafter called "CITY", is seeking qualifications to prepare plans and specifications for the Mexico Road at Dardenne Creek Bridge Rehabilitation & Widening (STP 4950(605)).

The selected Consultant shall provide all necessary field investigation and design required to comply with the Missouri Department of Transportation (MoDOT) Engineering Policy Guide (EPG) and EPG Section 136 Local Public Agency (LPA) Manual.

The CITY will select one qualified CONSULTANT based on submitted Statements of Qualifications and Proposals to perform all tasks as described in this document. Once a CONSULTANT is selected a contract will be negotiated based on a mutually agreed upon scope of services. The CITY has allocated $138,414.00 for the engineering services, and $1,050,487.00 for construction of this project.

All responses, inquiries, or correspondence relating to, or in reference to, this request, and all reports, charts, displays, schedules, exhibits and other documentation by the respondents received by the City shall be public records subject to disclosure pursuant to Chapter 610, RSMo. The City retains the right to use any or all system ideas presented in any response, whether amended or not. Selection or rejection of the respondent does not affect this right.

2.0 INSTRUCTIONS FOR SUBMITTING PROPOSALS

The CONSULTANT shall prepare a Technical Proposal with an estimate of total staff hours required each phase of the project as outlined in Section 6 of this Request for Proposal. The CONSULTANT shall submit one original and (3) copies of the proposal in a sealed envelope clearly marked with the CONSULTANT's name and 23-119 – Mexico Road at Dardenne Creek Bridge Rehabilitation & Widening (STP 4950(605)). The proposal must be received by the City of St. Peters Purchasing Department by 2:00 p.m. local time, February 23, 2023. All questions regarding the project and proposal submittal are to be submitted via e-mail to Bids@stpetersmo.net and specify in the subject line 23-119 – Mexico Road at Dardenne Creek Bridge Rehabilitation & Widening (STP 4950(605))", or by mail to City of St. Peters, Attention: Purchasing, One St. Peters Centre Boulevard, St. Peters, Missouri 63376 before noon local time, February 16, 2023.

2.1 Technical Proposal

The Technical Proposal shall include a schedule of tasks and projected work plan for the project. It shall also include discussions of any proposed modifications, or revisions to the scope of services. The Technical Proposal shall consist of the following information, presented in the order that follows.

1. Transmittal Letter
2. Introduction
3. General Business Information:
   a. Identity of CONSULTANT and legal status.

b. Name, address, and telephone number of contact person and person legally authorized to enter into a contract on behalf of the CONSULTANT.
c. Description of insurance coverage and deductibles (refer to Section 9 for listing of minimum requirements).

4. Project Understanding - include the following:
   a. Provide a statement of the CONSULTANT's understanding of the major challenges and opportunities included in the project, as well as the CONSULTANT's basic ideas for addressing these issues.

5. Qualifications of CONSULTANT / Professional Registration:
   a. Experience of CONSULTANT and project team specifically on similar projects; include the names of clients, brief project description and the project team's involvement in the project.
   b. Describe what expertise the CONSULTANT, the project team, and any sub-consultants will bring to the project.

6. Project Approach and Schedule –include the following:
   a. Include a listing and description of the major phases or tasks to be performed during the project, and identify key staff (or sub-consultants) that will be assigned to these phases or tasks.
   b. Include an estimate of the hours required to complete the project, categorized by the level of consultant staff performing the work in each phase.
   c. Include an organizational chart for the project, indicating key personnel and their primary responsibilities.
   d. Include resumes of the key personnel highlighted on the project organizational chart.
   e. Provide a proposed schedule for the project, in calendar days, including earliest anticipated start date, estimated time for completion of tasks and project, and suitable review time.
   f. Indicate the location of the office(s) where various project services are to be performed. The level of staffing dedicated to the local office shall be clearly identified.

7. Quality Assurance / Quality and Cost Control:
   a. Describe the CONSULTANT's quality assurance/quality control policies and procedures and describe how they will relate to the project.
   b. Provide comparisons of original engineering proposal to actual final engineering costs for similar projects that have been constructed in the last 5 years. The CONSULTANT may provide justification for any discrepancies that may exist with this information.
   c. Provide comparisons of engineer's cost estimate to actual construction costs for similar projects that have been constructed in the last 5 years. The CONSULTANT may provide justification for any discrepancies that may exist with this information.

3.0 CONSULTANT SELECTION METHOD

The method of final selection of the CONSULTANT for the project will be based upon review of the Technical Proposal conducted by the CITY review committee. The CITY reserves the right to reject any or all proposals for any reason. The selection process used by the CITY will generally consist of the following:

1. Review and evaluation of the Technical Proposals using the following criteria:

Experience & Technical Competence

Each CONSULTANT will be rated based on the qualifications of employees designated to this specific job and their understanding of the project scope, for example, assigning between 30 and 21 points for the most qualified personnel. Those rated between 20 and 11 points are considered good but lack extensive experience in the particular type of service desired. A value of 10 or less points is assigned to firms with well-qualified personnel who have no experience in the proposed area of work.

Capacity & Capability

Each CONSULTANT will be evaluated based on experience on similar and related types of work it has performed. They will also be rated on their project approach, project schedule, and quality assurance. For example, assigning between 30 and 21 points is for many years of established practice in the proposed type of work and related studies. A value of between 20 and 11 points may be assigned for above average experience, while 10 or less points may be given for experience adequate to perform the contract. The points for a firm with little operating experience in the selected field may be reduced further. Ratings will be reduced for a level of personnel inadequate to handle the firm's indicated workload.

Past Record of Performance

Each CONSULTANT will be rated based on the CITY's previous experience with the CONSULTANT and members of the proposed design team, including technical ability, control of costs, quality of work, availability, ability to meet schedules, and responsiveness. This will also include information supplied by references. A maximum of 40 points will be assigned to firms with exceptional performance and reducing the points for less experience.

Consultant Selection Rating

County:
Roadway:
Project:
Date:

Consultant	Experience & Technical Competence (Max. 30 points)	Capacity & Capability (Max. 30 points)	Past Record of Performance (Max. 40 points)	Total 100

Raters:

2. From this review, the CITY will rank each Technical Proposal in order to determine the most qualified CONSULTANTS. From this group, the CITY will select the CONSULTANT it considers the best qualified for the project and begin negotiations for an engineering services agreement for the project.
3. If the CITY is unable to negotiate a satisfactory contract with the CONSULTANT selected for the project, negotiations with that firm shall be terminated. The CITY will then undertake negotiations with the second ranked CONSULTANT for the project.
4. If the CITY is unable to negotiate a contract with any of the selected CONSULTANTS, the CITY shall reevaluate the necessary services, including the scope and reasonable fee requirements, and again compile a list of qualified CONSULTANTS.
5. The final engineering service agreement for the project will be on a “lump sum” basis with a guaranteed maximum limit for all services indicated in the proposal for that project.

4.0 BACKGROUND

The CITY has received St. Charles County Road Board and East-West Gateway TIP funds for design, and rehabilitation and widening of the Mexico Road at Dardenne Creek Bridge. Consistent with the approved project application, the primary goals of the project are:

1. Provide necessary maintenance items specified by the 2022 MoDOT Bridge Inspection Report and by the 20TTAP-04 BEAP St. Charles County 3885008 Mexico Road over Dardenne Creek report to extend the useful life of the bridge.
2. Provide necessary repairs to the wing wall, install rip-rap to address erosion concerns, remove and replace approach slabs, and replace rusted/damaged fence fabric. Other necessary rehabilitation items due to changes in bridge condition since the bridge inspection reports were completed shall be considered.
3. Remove and replace the existing guardrail with guardrail to meet current standards.
4. Provide an epoxy polymer deck overlay to fill existing cracks and preserve the bridge deck and concrete barrier.
5. Widen the existing north sidewalk of the bridge and sidewalk approach slabs to provide a 10 feet wide pedestrian path compliant with current ADA standards.

In 2021 the City submitted an application to East-West Gateway for federal STP-S funds for funding of the rehabilitation items included in the project, including construction. In order to receive the requested 80% federal reimbursement, the project must be consistent with the East-West Gateway STP-S application. Additionally, in 2022 the City submitted an application to St. Charles County Road Board for funding 80% of the remaining 20% local match of the project rehabilitation items, including construction, not funded by federal funds, and 50% funding of the bridge widening. In order to receive the requested 80% reimbursement for rehabilitation and 50% reimbursement for bridge widening of the local match cost for design, and construction from the County the project must be consistent with the St. Charles County Road Board application.

The City will consider additional improvements proposed by the consultant.

The Consultant's design shall provide said improvements while minimizing impacts to adjacent utilities and properties. All plans and specifications shall be compliant with all applicable sections of the Missouri Department of Transportation (MoDOT) Engineering Policy Guide (EPG) and EPG Section 136 (Local Public Agency (LPA) Manual). Roadway lighting, roadway and bike/pedestrian improvements, and traffic signals shall be designed in accordance with the City of St. Peters Design Criteria and Standard Specifications for Street Construction and St. Louis County Standard Specifications for Highway Construction. Any items not found in the City of St. Peters Design Criteria and Standard Specifications for Street Construction and St. Louis County Standard Specifications for Highway Construction shall be designed in accordance with the Missouri Standard Specifications for Highway Construction. All storm sewer improvements shall be designed in accordance with the Metropolitan St. Louis Sewer District's Standard Construction Specifications for Sewers and Drainage Facilities.

The Consultant shall perform all tasks necessary to prepare alignment, preliminary, right-of-way and final construction plans and specifications for bidding to be reviewed and approved by the City of St. Peters and St. Charles County. The Consultant shall also prepare and provide all necessary metes and bounds descriptions and exhibits for all required easements and right-of-way necessary to construct the project. The Consultant shall at all stages of the project design, correspond and coordinate with all area utility companies with assets within the project limits and design proposed improvements to minimize existing utility conflicts and relocations. The consultant shall perform all necessary tasks to properly design the project and obtain all necessary permits. Said task shall include, but not be limited to, surveying, geotechnical investigations, hydraulic

studies, environmental and historic preservation services/permits including the preparation of PS&E and final documents. The Consultant shall also provide all required construction phase services necessary for proper construction and documentation of these projects.

There is a DBE goal of 10% for this project.

5.0 CITY OF ST. PETERS RESPONSIBILITIES

The CITY shall provide the following services to assist the CONSULTANT:

1. Provide information as to the requirements of the project.
2. Assist the Engineer by providing existing CITY information, records, and reports pertinent to the project.
3. Furnish the Engineer, as required for performance of the services, data prepared by others, which the Engineer may use at their discretion subject to their verification, provided that such data is specifically required to be provided by the CITY.
4. Provide access to and make provisions for the Engineer to enter upon City and other public and private properties required to perform the services. The ENGINEER shall notify the CITY with sufficient advance notice in writing of any request to enter private property so that the CITY may obtain or confirm the existence of appropriate rights of entry.
5. Provide suitable rooms in CITY facilities to the Engineer to conduct progress meetings and workshops.
6. Review all studies, reports, sketches, drawings, specifications, proposals, and other documents presented by the Engineer and render in writing decisions pertaining thereto within reasonable time so as not to delay the service of the Engineer.
7. Endeavor to give notice to the Engineer whenever the City observes or otherwise becomes aware of a defect in the project or changed circumstances; provided however, that the failure of the CITY to provide such notice to the Engineer shall in no way affect the ENGINEER's obligations under this Agreement, nor shall such failure relieve the ENGINEER from any liability for its failure to discover and correct any such fault, defect, error, omission, or inconsistency.
8. Prepare bid documents utilizing CONSULTANT prepared plans, bid proposal, standard conditions, special conditions and any applicable specification provided by the CONSULTANT. This will include preparation and submittal for MODOT PS&E approval as the project will receive federal funds.
9. Perform all property acquisition activities utilizing plans, specifications and exhibits prepared by the CONSULTANT.
10. Review, comment and issue applicable City of St. Peters permits from permit applications prepared by the CONSULTANT.

6.0 CONSULTANT'S RESPONSIBILITIES

The CONSULTANT shall prepare all plans and specifications in compliance with all applicable sections of the Missouri Department of Transportation (MoDOT) Engineering Policy Guide (EPG) and EPG Section 136 (Local Public Agency (LPA) Manual). The

CONSULTANT's responsibilities associated with this project will include, but not be limited to the following:

1. Bridge Rehabilitation and Widening: The engineering responsibilities may include but are not limited to the preparation of Preliminary plans, Contract plans, Right of Way Plans, preparing and submitting necessary permits, contract documents, assisting with the bidding process for ADA compliant sidewalks and preparation of PS&E and final documents. The engineering responsibilities may include but are not limited to the preparation of Preliminary plans, Contract plans and Right of Way Plans. Design services may include, surveying, preparation of metes and bounds descriptions and exhibits, geotechnical investigations, public involvement, environmental and historic preservation services/permits, contract documents, assisting with the bidding process, utility coordination/permits and traffic controls including the preparation of PS&E and final documents.

6.1 PROJECT STARTUP MEETING

The CONSULTANT shall attend a Project startup meeting with CITY staff to discuss in detail the scope of the project and collect existing data from the CITY.

6.2 REVIEW AND CONFIRM EXISTING DATA

The CONSULTANT shall review available data and provide a memorandum to CITY outlining the sustainability of the existing data to support the project goals, additional data needs and next steps and anticipated results.

6.3 DESIGN CRITERIA

All plans and specifications shall be compliant with all applicable sections of the Missouri Department of Transportation (MODOT) Engineering Policy Guide (EPG) and EPG Section 136 (Local Public Agency (LPA) Manual), unless otherwise stated in this document. The CONSULTANT shall use the following standards in the design of the project:

1. The bridge and related components shall be designed in compliance with all applicable Missouri Standard Specifications for Highway Construction (current edition) and Missouri Department of Transportation Bridge Standards.

2. The roadway, traffic signal and bike/pedestrian components shall be designed in accordance with the City of St. Peters Design Criteria and Standard Specifications for Street Construction, City of St. Peters Traffic Signal Specifications, and St. Louis County Standard Specifications for Highway Construction.

3. All storm sewer improvements shall be designed in accordance with the Metropolitan St. Louis Sewer District's Standard Construction Specifications for Sewers and Drainage Facilities.

4. In estimating peak discharges, the methods listed in "Urban Hydrology for Small Watersheds" (technical release No. 55) published by the Soil Conservation Service shall be used.

5. When encroaching or crossing Flood Hazard areas, the “Flood Insurance Study – City of St. Peters, Missouri and St. Charles County, Missouri and its supporting maps shall be consulted. The analysis of the effects that the road improvements will have on the base flood elevations shall be made using the Corps of Engineer’s HEC-RAS computer program.

6. The various publications of the U.S. Department of Transportation in their hydraulic Engineering Circular shall be used as appropriate.

7. All traffic control signing and pavement markings shall meet the provisions of the “Manual on Uniform Traffic Control Devices” published by the U.S. Department of Transportation.

8. The design and any City owned utility line relocations shall be in accordance with the City of St. Peters Standards for Water and Sewer Extensions.

6.4 FINAL REPORT

The CONSULTANT shall develop report and meet with CITY. Report shall include recommendations to provide planning level project costs, sketches of all alternatives and recommendations on most cost effective approach.

7.0 TENTATIVE SCHEDULE

The following is a tentative design schedule for this project, any variance from this schedule shall be discussed in the CONSULTANT’s Project Approach.

Issue Request for Statement of Qualifications	02/08/23
Receive Statement of Qualifications	02/23/23
Award Contract	03/23/23
Issue Notice to Proceed	04/10/23
Project Startup Meeting	04/10/23
Submit Conceptual Plan and Estimate (10% Design)	06/12/23
Preliminary Plans (30% Design)	07/17/23
Right-of-Way Plans	08/14/23
Final Plans and Specifications	09/29/23

8.0 INVOICING

The CONSULTANT shall present an invoice to the CITY’s Purchasing Department with each required submittal for services rendered and expenses resulting there from. The invoice shall include the following information:

1. Submittal record.
2. Description of services provided to date.
3. Description of services pending.
4. Amount of basic services fee.
5. Amount of optional services fee.
6. Total Amount.

Additional invoicing and payment information can be found in the Sample Agreement

9.0 INSURANCE REQUIREMENTS

CONSULTANT shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property, which may arise from or in connection with the performance of the work hereunder by the CONSULTANT, his agents, representatives, employees or subcontractors, including those insurance coverages set forth below. All such insurance policies shall name the CITY as an additional insured with the exception of the Workers' Compensation/Employer's Liability Policy and Professional Errors and Omissions Insurance, with a subrogation waiver on all policies except Professional Liability. Each insurance policy required by this clause shall be endorsed to state that coverage shall not be suspended, voided, cancelled by either party, except after thirty (30) days prior written notice by certified mail, return receipt requested, or by such other method approved by the CITY, has been given to the CITY. The cost of such insurance shall be included in the CONSULTANT'S proposal.

9.1 MINIMUM LIMITS OF INSURANCE

CONSULTANT shall maintain limits no less than:

1. Workers' Compensation for statutory limits and Employer's Liability minimum $500,000 limit.

2. Comprehensive General Liability to cover claims which may arise from operations under this contract. The policy shall include, but not be limited to, protection for the following hazards:
   a. Premises and Operations-Bodily Injury and Property Damage Liability
   b. Independent Contractors Coverage
   c. Products & Completed Operations liability coverage
   d. Personal Injury/Advertising Injury Liability
   e. Broad Form Property Damage
   f. Contractual Liability
   g. Explosion, collapse and underground damage, if applicable

   The above policy shall be written with limits of at least $1,000,000 each occurrence and $2,000,000 aggregate.
3. Business Automobile Policy (Comprehensive Automobile Liability Insurance) provides coverage for all owned, non-owned and hired vehicles. Minimum limits should be at least $1,000,000 Each Occurrence Bodily Injury Liability and Property Damage Liability.

4. Umbrella/Excess Liability – Limit of $1,000,000 which will be excess f the primary limits for General Liability, Auto Liability and Employer Liability.

5. Professional Errors and Omissions Insurance: If CONSULTANT is an architect, engineer, surveyor, or consultant, CONSULTANT agrees to obtain Professional Errors and Omissions Insurance. CONSULTANT shall also require all professional subcontractors to obtain and maintain similar insurance with similar limits in connection with subcontracted work. Limit of Liability should be no less than $2,000,000 Per Claim/$2,000,000 Annual Aggregate.

9.2 DEDUCTIBLES AND SELF-INSURED RETENTIONS

Any deductibles or self-insured retentions must be declared to and approved by the CITY. At the option of the CITY, either; the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the City, its officers, officials and employees; or the CONSULTANT shall procure a bond guaranteeing payment of losses and related investigations, claim administrative and defense expense.

9.3 OTHER INSURANCE PROVISIONS

The CONSULTANT shall also obtain and pay for insurance policies that contain, or are endorsed to contain, the following provisions:

1. CONSULTANT'S Contingent or Protective Liability and Property Damage to protect the CONSULTANT from any and all claims arising from the operations of sub-consultant employed by the CONSULTANT.
2. The coverage shall be for a minimum of $2,000,000 unless otherwise stated in the Contract Documents, and shall contain no special limitations on the scope of protection afforded to the CITY, its officers, officials, employees or volunteers.
3. The CONSULTANT’s insurance coverage SHALL BE PRIMARY INSURANCE as respects the CITY, its officers, officials, employees and volunteers. Any insurance or self-insurance maintained by the CITY, its officers, officials, employees or volunteers shall be excess of the CONSULTANT’s insurance and shall not contribute with it.
4. Any failure to comply with reporting provisions of the policies shall not affect coverage provided to the CITY, its officers, officials, employees or volunteers.
5. The CONSULTANT's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

9.4 ACCEPTABILITY OF INSURERS

Insurance is to be placed with insurers with a Bests' rating of no less than A:VI.

9.5 VERIFICATION OF COVERAGE

CONSULTANT shall furnish the CITY with certificates of insurance. The certificates for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf, and are to be received and approved by the CITY before work commences. The CITY reserves the right to require complete, certified copies of all required insurance policies, at any time.

9.6 SUBCONSULTANTS

CONSULTANT shall include all subconsultants as insureds under its policies or shall furnish separate certificates of each subconsultant. All coverages for subconsultants shall be subject to all of the requirements stated herein.

APPENDIX A
DRAFT AGREEMENT
FOR ENGINEERING SERVICES
23-119 MEXICO ROAD AT DARDENNE CREEK BRIDGE REHABILITATION & WIDENING (STP 4950(605))

This Agreement, entered into in the City of St. Peters, County of St. Charles, State of Missouri this_____ day of _____, 2023, is by and between the City of St. Peters, Missouri, a Missouri municipal corporation, hereinafter referred to as CITY, and INSERT NAME., a Missouri corporation, hereinafter referred to as ENGINEER.

WITNESSETH:

WHEREAS, the CITY is seeking professional and technical services to complete Mexico Road at Dardenne Creek Bridge Rehabilitation & Widening (STP 4950(605)) (the PROJECT); and

WHEREAS, the ENGINEER has submitted a proposal to provide professional and technical services, and

WHEREAS, the CITY and the ENGINEER have held subsequent meetings after the submittal of the proposal to define the terms and conditions of such professional and technical services, which terms and conditions are specified herein.

NOW THEREFORE, in consideration of the foregoing recitals and the terms and conditions of such professional and technical services, which terms and conditions are specified herein.

ARTICLE 1 - GENERAL
The ENGINEER shall serve as the CITY'S professional and technical representative in providing professional engineering services for Mexico Road at Dardenne Creek Bridge Rehabilitation & Widening (STP 4950(605)) and shall also provide consultation and advice to the CITY during the performance of these services.

ARTICLE 2 – DEFINITIONS
The meaning and intent of the following terms in this Agreement shall be as follows:

2.1 COST: Includes direct labor expense, plus a percentage of direct labor expense for total indirect costs, plus other direct costs at actual out-of-pocket expense.

2.2 DIRECT LABOR EXPENSE: Includes the direct compensation payable to employees for time specifically chargeable to the PROJECT, with the average hourly labor rate being the annual direct compensation divided by 2,080.

2.3 FIXED FEE: A dollar amount to compensate the ENGINEER for contingencies, interest on invested capital, professional expertise, readiness to serve, risk management, other non-reimbursable costs, and profit. The amount varies with the complexity and size of a given project and the scope of the engineering services required. The fee shall be calculated as a percentage of the total initial contractual sum of direct labor expenses, other direct costs and total indirect costs chargeable to the PROJECT.

2.4 OTHER DIRECT COSTS: Includes such items as subcontract expenses, computer run time and CADD charges, special equipment rental, special material purchases, reproduction costs, mileage, traveling expenses, and living costs for personnel on assignment away from their home office, and other incidental expenses directly chargeable to the PROJECT, charged at actual cost to the ENGINEER.

2.5 TOTAL INDIRECT COSTS: Includes labor overhead and general and administration overhead costs. Overhead expenses shall also include costs of all required insurance, including professional liability coverage for the project. Labor overhead includes allowances for sick leave, vacation and holiday, plus unemployment, excise and other payroll taxes; and statutory and usual contributions for Social Security; Worker's Compensation Insurance, retirement benefits, and medical and other insurance benefits. General and administrative overhead costs shall include costs of preparing proposals for the PROJECT and also consist of costs not directly identifiable with any specific project and include allowable general corporate overhead such as office rent, accounting and insurances. The provisional rate for total indirect costs indicated in the attached proposal is for use during the performance of this contract. The provisional rate may be revised by mutual consent of the parties if such a rate varies significantly from the actual rate experienced during the period of performance under this Agreement.

ARTICLE 3 - SERVICES TO BE PERFORMED BY ENGINEER

ENGINEER shall perform the Services described in Attachment A, Scope of Services. ENGINEER shall have no liability for defects in the Services attributable to ENGINEER'S reliance upon or use of data, design criteria, drawings, specifications, or other information that the City is required to furnish under this Agreement; provided that such reliance is reasonable and not a breach of any contractual obligation, warranty or standard of care under this Agreement.

ARTICLE 4 - COMPENSATION

CITY shall pay ENGINEER the amounts stated in Attachment B, Compensation. Prices quoted are firm for the duration of the Project. CITY shall not be liable for any taxes assessed against the ENGINEER’s income.

Requests for progress payments for services rendered will be made by the ENGINEER monthly as the work progresses by the ENGINEER submitting a correctly detailed invoice for work performed prior to the request for payment, along with all other required submittals, all in accordance with the terms of this Agreement.

All invoices, payroll records, supporting documentation, and payment certifications shall be submitted to the Purchasing Department, City Hall, One St. Peters Centre Blvd., P O Box 9, St. Peters, Missouri 63376 who will forward to the Project Manager (the CITY staff official in charge of the Project). For purposes of payment, the ENGINEER’s invoices and requests for payment shall be deemed to be duly delivered to the CITY ten days after the CITY’s Project Manager certifies to the CITY Purchasing Department that the invoice is for a correct amount, was properly submitted in accordance with the contract documents, and that all required and necessary supporting documents required by the contract or requested by the CITY have been submitted by the ENGINEER to support the invoice.

The CITY’s Project Manager shall act on the ENGINEER’s payment request by either:

a. Approving the request for payment as submitted
b. Approving a lesser amount that the Project Manager determines is due the ENGINEER, informing the ENGINEER in writing of his reasons for approving the amended amount.
c. Rejecting the request for payment, informing the ENGINEER in writing of his reasons for rejecting it.

If there are errors in the invoice, it is not for a proper amount, additional supporting information is required by the CITY, or there are other defects in the invoice, the CITY's Project Manager shall return the invoice to the ENGINEER with a request to correct the errors. The invoice will not be deemed to be duly delivered until the errors are corrected, additional requested information is supplied, and the City staff official in charge of the Project certifies to the CITY Purchasing Department that the invoice is for a correct amount, was properly submitted in accordance with the contract documents, and that all required and necessary supporting documents required by the contract or requested by the CITY have been submitted by the ENGINEER to support the invoice.

Within thirty (30) calendar days from the date that the ENGINEER's invoice or amended invoice is duly delivered to the CITY, the CITY shall either:

a. Pay the request for payment as certified by the CITY's Project Manager.
b. Pay such other amount as the CITY determines is actually due the ENGINEER, informing the ENGINEER and the Project Manager in writing of his reasons for paying the amended amount.
c. Reject the invoice and inform the ENGINEER and the Project Manager in writing of the reasons for rejecting the invoice.

The City may withhold payment in whole or in part on a request for payment or invoice because of, but not limited to, the following reasons, even if such reasons are discovered subsequent to approval of a request for payment by the CITY's Project Manager or the CITY.

a. Defective work or material not remedied.
b. Evidence indicating the probable filing of claims by other parties against the ENGINEER or against the CITY because of the ENGINEER's work.
c. Failure of the ENGINEER to make payments to subcontractors, consultants, material suppliers, or labor.
d. Damage to the CITY's or another's property or work.
e. Unsatisfactory job progress;
f. Disputed work;
g. Failure to comply with any material provision of the contract;
h. Reasonable evidence that a subcontractor, consultant, or material supplier cannot be fully compensated under its contract with the ENGINEER for the unpaid balance of the contract sum;
i. Citation by the enforcing authority for acts of the ENGINEER or its consultants or subcontractors that do not comply with any material provision of the contract or that result in a violation of any federal, state or local law, regulation or ordinance applicable to that Project causing additional costs, delays, or damages to the CITY;
j. Funds from a State grant are not timely received by the CITY;
k. Failure to fulfill any condition precedent to payment;

l. Failure to provide all appropriate, requested, or required documentation and certifications in complete and acceptable form; or
m. Any other cause or reason permitted by law.

Only properly submitted invoices for valid charges will become due and payable.

The ENGINEER may submit an invoice at substantial completion of the Services requesting that the CITY pay ninety-eight percent of the retainage, less any offsets or deductions authorized in this Agreement or otherwise authorized by law. "Substantial Completion" means that point where all of the Services have been performed and accepted by the CITY except for the delivery of the completed final product. If the CITY determines the work is not substantially completed and accepted, then the CITY shall provide a written explanation of why the work is not considered substantially completed and accepted within fourteen calendar days of the date that the substantial completion invoice is duly delivered to the CITY. If there are any remaining minor items to be completed at substantial completion, an amount equal to one hundred fifty percent (150%) of the value of each item as determined by the CITY shall be withheld until such items are fully and finally completed.

The ENGINEER may submit a final invoice upon the satisfactory completion of all the Services required by this Agreement. The CITY shall make final payment of all moneys owed to the ENGINEER, including any retainage withheld under this Agreement, less any offsets or deductions authorized in the contract or otherwise authorized by law, within thirty days of the due date. The final payment due date shall be the date of the earliest of the following events:

a. Completion of the Project and filing with the CITY of all required documentation and certifications, in complete and acceptable form, in accordance with the terms and conditions of the contract;
b. The Project is certified by the CITY as having been completed, including the filing of all documentation and certifications required by the contract, in complete and acceptable form.

As part of the documentation and certifications required for final payment, the ENGINEER must also provide to the CITY the following:

a. Written certification and verification by the ENGINEER and any consultants and subcontractors that the ENGINEER has made all payments to any subconsultants or subcontractors used to complete the Project and there are no outstanding claims by or against them;
b. Certification from the CITY's Project Manager that the Project is fully and finally complete with no other work remaining to be performed, and no claims arising from or related to the ENGINEER's Services are outstanding;
c. Certification from the CITY's Project Manager that the final invoice is for the proper amount; and
d. All funds from state or federal sources for the Project have been received by the CITY.

No additional services or overtime services shall be payable by the CITY unless the CITY has approved them in writing as an Amendment as additional services for an additional fee before those services are provided. Any adjustments to the rates and amounts of ENGINEER's compensation shall be negotiated in good faith. CITY agrees to pay for such

additional services or extra work only if the consultant specifies it as extra work to be performed for an extra fee in advance of the work being formed. No request for payment for extra work shall be valid unless it has been accepted in compliance with RSMo. §432.070. The CITY shall not be obligated to pay any sums beyond the stated not-to-exceed price unless the CITY agrees to do so after the execution of this Agreement in compliance with RSMo. §432.070.

ARTICLE 5 - CITY'S RESPONSIBILITIES

CITY shall be responsible for all matters described in Attachment C, City's Responsibilities. CITY shall not be responsible for discovering deficiencies in the technical accuracy of Engineer's services. Engineer shall correct deficiencies in its Services without compensation, unless such corrective action is directly attributable to deficiencies in CITY-furnished information.

ARTICLE 6 – INSURANCE REQUIREMENTS

ENGINEER shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property, which may arise from or in connection with the performance of the work hereunder by the ENGINEER, his agents, representatives, employees or subcontractors, including those insurance coverages set forth below. All such insurance policies shall name the CITY as an additional insured with the exception of the Workers' Compensation/Employer's Liability Policy and Professional Errors and Omissions Insurance, with a subrogation waiver on all policies except Professional Liability. Each insurance policy required by this clause shall be endorsed to state that coverage shall not be suspended, voided, cancelled by either party, except after thirty (30) days prior written notice by certified mail, return receipt requested, or by such other method approved by the CITY, has been given to the CITY. The cost of such insurance shall be included in the ENGINEER'S proposal.

6.1 MINIMUM LIMITS OF INSURANCE

ENGINEER shall maintain limits no less than:

1. Workers' Compensation for statutory limits and Employer's Liability minimum $500,000 limit.

2. Comprehensive General Liability to cover claims which may arise from operations under this contract. The policy shall include, but not be limited to, protection for the following hazards:
   a. Premises and Operations-Bodily Injury and Property Damage Liability
   b. Independent Contractors Coverage
   c. Products & Completed Operations liability coverage
   d. Personal Injury/Advertising Injury Liability
   e. Broad Form Property Damage
   f. Contractual Liability
   g. Explosion, collapse and underground damage, if applicable

   The above policy shall be written with limits of at least $1,000,000 each occurrence and $2,000,000 aggregate.
3. Business Automobile Policy (Comprehensive Automobile Liability Insurance) provides coverage for all owned, non-owned and hired vehicles. Minimum

limits should be at least $1,000,000 Each Occurrence Bodily Injury Liability and Property Damage Liability.

4. Umbrella/Excess Liability – Limit of $1,000,000 which will be excess f the primary limits for General Liability, Auto Liability and Employer Liability.

5. Professional Errors and Omissions Insurance: If ENGINEER is an architect, engineer, surveyor, or consultant, ENGINEER agrees to obtain Professional Errors and Omissions Insurance. ENGINEER shall also require all professional subcontractors to obtain and maintain similar insurance with similar limits in connection with subcontracted work. Limit of Liability should be no less than $2,000,000 Per Claim/$2,000,000 Annual Aggregate.

6.2 DEDUCTIBLES AND SELF-INSURED RETENTIONS

Any deductibles or self-insured retentions must be declared to and approved by the CITY. At the option of the CITY, either; the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the City, its officers, officials and employees; or the CONSULTANT shall procure a bond guaranteeing payment of losses and related investigations, claim administrative and defense expense.

6.3 OTHER INSURANCE PROVISIONS

The ENGINEER shall also obtain and pay for insurance policies that contain, or are endorsed to contain, the following provisions:

1. ENGINEER'S Contingent or Protective Liability and Property Damage to protect the ENGINEER from any and all claims arising from the operations of subconsultant employed by the ENGINEER.
2. The coverage shall be for a minimum of $2,000,000 unless otherwise stated in the Contract Documents, and shall contain no special limitations on the scope of protection afforded to the CITY, its officers, officials, employees or volunteers.
3. The ENGINEER’s insurance coverage SHALL BE PRIMARY INSURANCE as respects the CITY, its officers, officials, employees and volunteers. Any insurance or self-insurance maintained by the CITY, its officers, officials, employees or volunteers shall be excess of the ENGINEER’s insurance and shall not contribute with it.
4. Any failure to comply with reporting provisions of the policies shall not affect coverage provided to the CITY, its officers, officials, employees or volunteers.
5. The ENGINEER's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

6.4 ACCEPTABILITY OF INSURERS

Insurance is to be placed with insurers with a Bests' rating of no less than A:VI.

6.5 VERIFICATION OF COVERAGE

ENGINEER shall furnish the CITY with certificates of insurance. The certificates for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf, and are to be received and approved by the CITY before work commences. The CITY reserves the right to require complete, certified copies of all required insurance policies, at any time.

6.6 SUBCONSULTANTS

ENGINEER shall include all subconsultants as insureds under its policies or shall furnish separate certificates of each subconsultant. All coverages for subconsultants shall be subject to all of the requirements stated herein.

No portion of the work covered by this contract, except as provided herein, shall be sublet or transferred without the written consent of the CITY. The subletting of the work shall in no way relieve ENGINEER of his primary responsibility for the quality and performance of the work.

It is the intention of ENGINEER to engage subcontractors for the purposes of:

Sub-Consultant Name	Address	Services

ARTICLE 7 – COVENANT AGAINST CONTINGENT FEES

ENGINEER warrants that they have not employed or retained any company or person, other than a bona fide employee working for their company, to solicit or secure this contract, and that they have not paid or agreed to pay any company or person, other than a bona fide employee, any fee, commission, percentage, brokerage fee, gifts, or any other consideration, contingent upon or resulting from the award or making of this contract. For breach or violation of this warranty, the CITY shall have the right to annul this agreement without liability, or in its discretion to deduct from the contract price or consideration, or otherwise recover, the full amount of such fee, commission, percentage, brokerage fee, gift, or contingent fee, plus reasonable attorney's fees. For breach or violation of this warranty, the CITY shall have the right to rescind this contract without liability.

ARTICLE 8 – INTELLECTUAL PROPERTY -- OWNERSHIP OF DOCUMENTS -- REUSE OF DOCUMENTS

All original documents, studies, drawings, maps and plans prepared by the ENGINEER for the project , and all right, title and interest, including all rights under federal and state copyright and intellectual property laws in the drawings, specifications, reports, plans, analyses, and other documents prepared by the ENGINEER for this Project (collectively, "Instruments of Service") and the electronic methods of reproducing such documents are hereby conveyed, assigned and transferred by ENGINEER and its consultants to CITY and shall be deemed to be the property of the CITY. CITY shall retain legal title to such Instruments of Service, whether or not the Project for which they may be made is completed. No further compensation shall be due to ENGINEER for CITY's use of the Instruments of Service, whether during performance of this Agreement or after is termination or completion. All Instruments of Service, including services in electronic form, shall be furnished to CITY in a format requested by CITY, including electronic format.

Any reuse without prior written verification or adaptation by ENGINEER for the specific purpose intended will be at CITY's sole risk and without liability or legal exposure to Engineer.

Because of the potential degradation of electronic medium over time, in the event of a conflict between the sealed original drawings/hard copies and the electronic files, the sealed drawings/hard copies will govern.

If ENGINEER will be preparing, drafting, displaying, reproducing, or otherwise using, in any manner or form, any information, document, or material that is subject to a copyright, trademark, patent, or other property or privacy right, then ENGINEER must: Obtain all necessary licenses, authorizations, and approvals related to its use; include the CITY in any approval, authorization, or license related to its use; and indemnify and hold harmless the CITY related to ENGINEER's alleged infringing or otherwise improper or unauthorized use. Accordingly, the ENGINEER must protect, indemnify, and hold harmless the CITY from and against all liabilities, actions, damages, claims, demands, judgments, losses, costs, expenses, suits, or actions, and attorneys' fees and the costs of the defense of the CITY, in any suit, including appeals, based upon or arising out of any allegation of infringement, violation, unauthorized use, or conversion of any patent, copyright, trademark or trade name, license, proprietary right, or other related property or privacy interest in connection with, or as a result of, this contract or the performance by the ENGINEER of any of its activities or obligations under this Agreement.

ENGINEER shall maintain all records, survey notes, design documents, cost and accounting records, construction records and other records pertaining to this contract and to the project covered by this contract, for a period of not less than three years following final payment. Said records shall be made available for inspection by authorized representatives of the CITY, MoDOT or the federal government during regular working hours at ENGINEER'S place of business.

ARTICLE 9 – INDEMNIFICATION

ENGINEER shall indemnify, defend, and save and hold harmless the CITY, its officers, agents and employees from any and all liability, claims, suits, demands, actions, damages and expenses (including reasonable attorney fees) of whatsoever kind and by whomsoever brought against the CITY, it officers, agents and employees, arising from, relating to, or in connection with any breach of this Agreement, any willful or negligent act, or error or omission of ENGINEER or ENGINEER's employees, consultants, subcontractors, or agents in the performance of this Agreement. This requirement shall be included in all of the ENGINEER's subcontract and consultant agreements. Notwithstanding any other provisions of this Agreement, the CITY reserves the right to seek recovery from the ENGINEER for any claims, suits, actions, damages, and/or cost resulting from damages to life and property of any kind arising out of or resulting from services rendered by the ENGINEER under this Agreement.

ARTICLE 10 – TERMINATION AND SUSPENSION

A. The CITY may, without being in breach hereof, suspend or terminate ENGINEER'S services under this Agreement, or any part of them, for cause or for the convenience of the CITY. ENGINEER shall not accelerate performance of services during the fifteen (15) day period without the express written request of

the CITY.

B. ENGINEER shall remain liable to the CITY for any claims or damages occasioned by any failure, default, or negligent errors and/or omission in carrying out the provisions of this Agreement during its life, including those giving rise to a termination for non-performance or breach by ENGINEER. This liability shall survive and shall not be waived, or estopped by final payment under this Agreement.

C. ENGINEER shall not be liable for any errors or omissions contained in deliverables which are incomplete as a result of a suspension or termination where ENGINEER is deprived of the opportunity to complete ENGINEER'S services.

Termination For Default
The CITY may terminate the Agreement in whole or in part, and from time to time, whenever the CITY, determines that the ENGINEER is:

a. defaulting in performance or is not complying with any provision of this Agreement;
b. failing to make satisfactory progress in the prosecution of the Agreement; or
c. endangering the performance of this Agreement.

The CITY will provide the ENGINEER with a ten calendar day written notice to cure the default. The termination for default is effective on the date specified in the CITY's written notice. However, if the CITY determines that default contributes to the curtailment of an essential service or poses an immediate threat to life, health, or property, the CITY may terminate the Agreement immediately upon issuing oral or written notice to the ENGINEER without any prior notice or opportunity to cure. Upon termination, the ENGINEER is not entitled to any further compensation. In addition to any other remedies provided by law or the Agreement, the ENGINEER must compensate the CITY for any damages suffered, and also any additional costs that are incurred by the CITY to obtain substitute performance. A termination for default is a termination for convenience if the termination for default is later found to be without justification.

Termination For Convenience
This Agreement may be terminated by the CITY, in whole or in part, upon written notice to the ENGINEER, when the CITY determines this to be in its best interest. The termination for convenience is effective on the date specified in the CITY's written notice. In the event of such termination, the CITY shall pay the ENGINEER its compensation and expenses to and through the actual date of termination. The payment will make no other allowances for damages or anticipated fees or profits.

Suspension of Services.
CITY may suspend performance of this Agreement for CITY's convenience upon written notice to Engineer. ENGINEER shall suspend performance of the Services on a schedule acceptable to CITY. ENGINEER shall only be entitled to compensation for Services performed through the date of suspension. If Services are resumed, ENGINEER shall receive compensation only for Services provided after the date that Services are resumed.

ARTICLE 11 - COMMUNICATIONS
Any communication required by this Agreement shall be made in writing to the address specified below:

IF TO ENGINEER:

IF TO CITY: Amanda L. Rich, P.E., PTOE
City of St. Peters
One St. Peters Centre Blvd.
St. Peters, MO 63376
Ph: (636) 477-6600, ext. x1423
Fax: (636) 992-2016
E-mail: arich@stpetersmo.net

Nothing contained in this Article shall be construed to restrict the transmission of routine communications between representatives of ENGINEER and CITY.

ARTICLE 12 - SUCCESSORS AND ASSIGNS
CITY and ENGINEER each binds itself and its directors, officers, partners, successors, executors, administrators, assigns, and legal representatives to the other party to this Agreement and to the directors, officers, partners, successors, executors, administrators, assigns, and legal representatives of such other party in respect to all provisions of this Agreement.

ARTICLE 13 – ASSIGNMENT
No portion of the contract shall be sublet, assigned, transferred, or otherwise disposed of, except with the written consent of the other Party. Written consent to sublet, assign, or otherwise dispose of any portion of the contract shall not be construed so as to relieve ENGINEER or CITY of any responsibility for the fulfillment of this Agreement.

ARTICLE 14 – CHANGES
The CITY may increase or decrease the scope of services of this Agreement. No changes will be made in the scope of services, the time of performance, the fees to be paid or other provisions, which may increase or decrease the total cost of the project without prior written order of the CITY and the execution of a suitable Amendment to this Agreement. In this event, a supplement to this agreement shall be executed and submitted for the approval of MoDOT prior to performing the additional or changed work or incurring any additional cost thereof.

Neither the CITY nor the ENGINEER may authorize any substantive change in this Agreement by oral or other directions in lieu of a written contract Amendment.

The total maximum amount to be paid by the CITY shall not exceed the cost ceilings stated in Attachment B without a written Amendment to this Agreement.

If during the progress of the work, the ENGINEER anticipates that he may exceed the cost ceilings set forth in Attachment B, he shall notify the CITY in writing, setting forth the status of the project and the reasons for the possible overrun. If, in the opinion of the CITY, the potential overrun is justified, the parties will negotiate and execute a written Amendment to this Agreement modifying the scope of services and/or the cost ceiling provisions of Attachment B. If, in the opinion of the CITY, the potential cost overrun is not justified, the ENGINEER must complete the work without exceeding the contract-ceiling price stated in Attachment B.

ARTICLE 15 – THIRD PARTY RIGHTS

Nothing herein shall be construed to give any rights or benefits to anyone other than CITY and ENGINEER.

ARTICLE 16 – PRE-EXISTING CONTAMINATION

Anything herein to the contrary notwithstanding, title to, ownership of, and legal responsibility and liability for any and all pre-existing contamination shall at all times remain with CITY, except for pre-existing contamination that is moved, disturbed, or added to by the ENGINEER. "Pre-existing contamination" is any federally reportable quantity of hazardous or toxic substance, material, or condition present at the Project site(s) concerned, which was not brought onto such site(s) by the ENGINEER.

ARTICLE 17 – DELAYS IN PERFORMANCE

Neither CITY nor ENGINEER shall be considered in default of this Agreement for delays in performance caused by circumstances beyond the reasonable control of the non-performing party. For purposes of this Agreement, such circumstances include, but are not limited to, abnormal weather conditions; floods; earthquakes; fire; epidemics; war, riots, and other civil disturbances; strikes, lockouts, work slowdowns, and other labor disturbances; sabotage; judicial restraint; and inability to procure permits, licenses, or authorizations from any local, state or federal agency for any of the supplies, materials, accesses, or services required to be provided by either CITY or ENGINEER under this Agreement.

Should such circumstances occur, the non-performing party shall, within a reasonable time of being prevented from performing, give written notice to the other Party describing the circumstances preventing continued performance and the efforts being made to resume performance of this Agreement.

ARTICLE 18 – PROFESSIONAL RESPONSIBILITY AND STANDARD OF CARE

By execution of this Agreement, the ENGINEER represents and agrees that (a) it is an experienced and registered ENGINEERING firm having the ability and skill necessary to perform all the services required of it under this Agreement in connection with scope and complexity of the Project; (b) it has the capabilities and resources necessary to perform its obligations under this Agreement; (c) the person(s) directly in charge of the professional engineering work are duly licensed and registered under the laws of Missouri; and (d) it is familiar with all current laws, rules, and regulations that are applicable to the design and construction of the Project, and that all drawings, plans, specifications and other documents prepared by the ENGINEER must be prepared in accordance with, and must accurately reflect and incorporate, appropriate laws, rules and regulations. Notwithstanding anything to the contrary contained in this Agreement, CITY and ENGINEER agree and acknowledge that CITY is entering into this Agreement in reliance on ENGINEER's stated experience and abilities with respect to performing the Services for this Project. The ENGINEER accepts the relationship of trust and confidence

established between it and the CITY by this Agreement. ENGINEER covenants with CITY to use its best efforts, skill, judgment and abilities to perform the services under this Agreement. ENGINEER represents covenants and agrees that there are no obligations, commitments or impediments of any kind that will limit or prevent performance of the Services under this Agreement. The ENGINEER represents and agrees that the reports, analyses, plans, drawings, specifications and other documents prepared by it pursuant to this Agreement must be complete and functional for the purposes intended, except as to any deficiencies that are due to causes beyond the control of the ENGINEER. The ENGINEER agrees to act in a reasonable, responsive and timely manner in the performance of all services under this Agreement. The ENGINEER is responsible for the completeness and accuracy of all documents, submitted by or through the ENGINEER and for their compliance with all applicable codes, ordinances, regulations, laws, and statutes. The ENGINEER's liability for errors and omissions under this Agreement will be interpreted consistent with the standard of care applicable to professional ENGINEERS. The ENGINEER shall be responsible for providing services, at no additional cost to the CITY, that are made necessary by major defects or deficiencies in the contractor's work which the ENGINEER should have discovered through the exercise of reasonable care.

ENGINEER shall be responsible for working with the CITY in determining the appropriate design parameters and construction specifications for the project using good engineering judgment based on the specific site conditions, CITY needs, and guidance provided in the most current version of EPG 136 LPA Policy. If the project is on the state highway system or is a bridge project, then the latest version of MoDOT's Engineering Policy Guide (EPG) and Missouri Standard Specifications for Highway Construction shall be used (see EPG 136.7). The project plans must also be in compliance with the latest ADA (Americans with Disabilities Act) Regulations.

ARTICLE 19 – WORK AUTHORIZATION

Pursuant to RSMo. § 285.530, the ENGINEER must affirm its enrollment and participation in a federal work authorization program with respect to the employees proposed to work in connection with the services requested in this contract by:

1. Submitting a completed, notarized Affidavit of Work Authorization; and
2. Providing proper documentation affirming the bidder/engineer's enrollment and participation in a valid federal work authorization program for the employees proposed to work in connection with the services requested in this Contract.

An example of a valid federal work authorization program is E-Verify. Acceptable enrollment and participation documentation in the E-Verify program consists of: (1) a valid, completed copy of the first page of the E-Verify Memorandum of Understanding (MOU) identifying the bidder; and (2) a valid copy of the MOU signature page completed and signed by the bidder, the Social Security Administration, and the Department of Homeland Security – Verification Division.

ARTICLE 20 – REMEDIES NOT WAIVED.

No delay, omission or forbearance to exercise any right, power, or remedy accruing to the CITY shall impair any such right, power or remedy, or shall be construed to be a waiver of any breach or default under this Agreement. Every such right, power or remedy may be exercised from time-to-time and as often as deemed expedient.

ARTICLE 21 – SAFETY
The ENGINEER shall be solely responsible for the safety of its employees, agents, consultants, and subcontractors on the Project. The ENGINEER shall adopt all necessary safety plans and make all required postings before commencing its Services. The ENGINEER shall retain all required records.

ARTICLE 22 - PROFESSIONAL ENDORSEMENT
All plans, specifications and other documents shall be endorsed by ENGINEER and shall reflect the name and seal of the Professional Engineer endorsing the work. By signing and sealing the PS&E submittals the Engineer of Record will be representing to MoDOT that the design is meeting the intent of the federal aid programs.

ARTICLE 23 - DECISIONS UNDER THIS CONTRACT
The CITY will determine the acceptability of work performed under this contract and will decide all questions which may arise concerning the project. The CITY's decision shall be final and conclusive.

ARTICLE 24 - COMPLIANCE WITH LAWS
ENGINEER shall comply with all federal, state, and local laws, ordinances, and regulations applicable to the work, including but not limited to Title VI and Title VII of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d, 2000e), as well as with any applicable titles of the Americans with Disabilities Act (42 U.S.C. 12101, et seq.) and non-discrimination clauses incorporated herein, and shall procure all licenses and permits necessary for the fulfillment of obligations under this contract.

ARTICLE 25- NONDISCRIMINATION
ENGINEER, with regard to the work performed by it after award and prior to completion of the contract work, will not discriminate on the ground of race, color or national origin in the selection and retention of subcontractors. ENGINEER will comply with state and federal related to nondiscrimination, including but not limited to Title VI and Title VII of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d, 2000e), as well as with any applicable titles of the Americans with Disabilities Act (42 U.S.C. 12101, et seq.). More specifically, ENGINEER will comply with the regulations of the Department of Transportation relative to nondiscrimination in federally assisted programs of the Department of Transportation, as contained in 49 CFR 21 through Appendix H and 23 CFR 710.405 which are herein incorporated by reference and made a part of this contract. In all solicitations either by competitive bidding or negotiation made by ENGINEER for work to be performed under a subcontract, including procurements of materials or equipment, each potential subcontractor or supplier shall be notified by ENGINEER'S obligations under this contract and the regulations relative to non-discrimination on the ground of color, race or national origin.

ARTICLE 26– LOBBY CERTIFICATION
CERTIFICATION ON LOBBYING: Since federal funds are being used for this agreement, ENGINEER'S signature on this agreement constitutes the execution of all certifications on lobbying which are required by 49 C.F.R. Part 20 including Appendix A and B to Part 20. ENGINEER agrees to abide by all certification or disclosure requirements in 49 C.F.R. Part 20 which are incorporated herein by reference.

ARTICLE 27 - DISADVANTAGED BUSINESS ENTERPRISE (DBE) REQUIREMENTS:

A. DBE Goal: The following DBE goal has been established for this Agreement. The dollar value of services and related equipment, supplies, and materials used in furtherance thereof which is credited toward this goal will be based on the amount actually paid to DBE firms. The goal for the percentage of services to be awarded to DBE firms is 10% of the total Agreement dollar value.

B. DBE Participation Obtained by ENGINEER: ENGINEER has obtained DBE participation, and agrees to use DBE firms to complete, 10% of the total services to be performed under this Agreement, by dollar value. The DBE firms which ENGINEER shall use, and the type and dollar value of the services each DBE will perform, is as follows:

DBE Firm Name	
Street & Complete Mailing Address	
Type of DBE Service	
Total Value of DBE Subcontract	
Contract Amount to Apply to Total DBE Goal	
Percentage of subcontract Dollar Value Applicable to Total Goal	

ARTICLE 28 - PERIOD OF SERVICE

ENGINEER will commence work within two weeks after receiving notice to proceed from the CITY. The general phases of work will be completed in accordance with the following schedule:

A. Mexico Rd at Dardenne Creek Bridge Rehabilitation & Widening Project will be submitted in draft form by June 12, 2023. Work on this plan will be completed by September 29, 2023, so final invoice can be submitted by October 29, 2023.

The CITY will grant time extensions for delays due to unforeseeable causes beyond the control of and without fault or negligence of ENGINEER. Requests for extensions of time shall be made in writing by ENGINEER, before that phase of work is scheduled to be completed, stating fully the events giving rise to the request and justification for the time extension requested.

ARTICLE 29 - RETENTION OF RECORDS

The Engineer shall maintain all records, survey notes, design documents, cost and accounting records, construction records and other records pertaining to this contract and to the project covered by this contract, for a period of not less than three years following final payment. Said records shall be made available for inspection by authorized representatives of the Local Agency, MODOT or the federal government during regular working hours at the Engineer's place of business.

IN WITNESS WHEREOF, CITY and ENGINEER have executed this Agreement effective as of the date first written above.

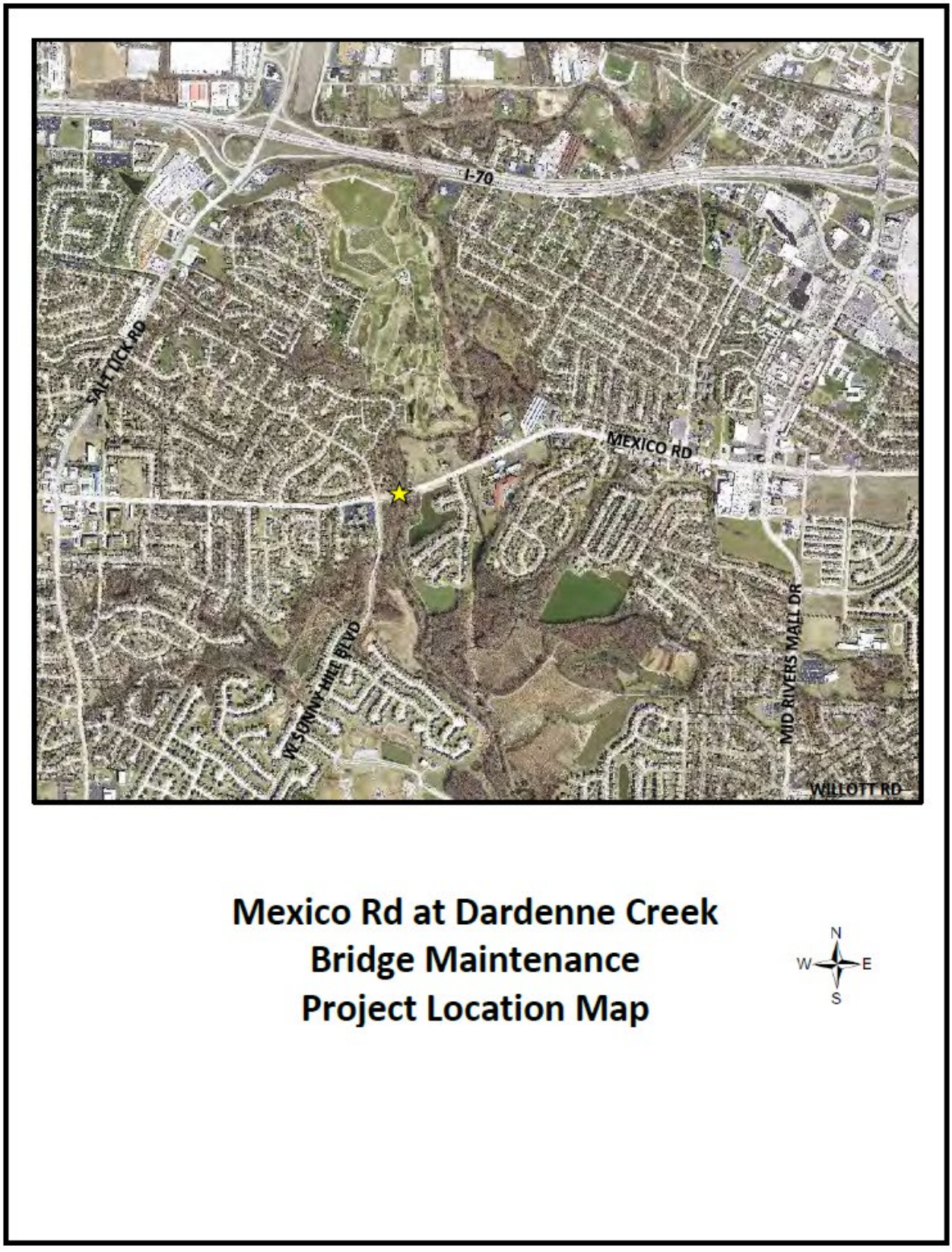
City of St. Peters			
City		Engineer	
Signature:		Signature:	
Print Name:	Russell W. Batzel	Print Name:	
Title:	City Administrator	Title:	
Date:		Date:	

I hereby certify under Section 50.660 RSMo there is either: (1) a balance of funds, otherwise unencumbered, to the credit of the appropriation to which the obligation contained herein is chargeable, and a cash balance otherwise unencumbered, in the Treasury, to the credit of the fund from which payment is to be made, each sufficient to meet the obligation contained herein; or (2) bonds or taxes have been authorized by vote of the people and there is a sufficient unencumbered amount of the bonds yet to be sold or of the taxes levied and yet to be collected to meet the obligation in case there is not a sufficient unencumbered cash balance in the treasury.

Signature:	
Print Name:	Beth French
Title:	Director of Finance
Date:	

APPENDIX B

Project Location Map



APPENDIX C

St. Charles County Road Board Application

Mexico Rd at Dardenne Creek Bridge Rehabilitation & Widening

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ST. CHARLES COUNTY

Road Board Application

PROJECT INFORMATION

Permit #:	RB22-000023	**Project Type:**	Bridge
Name:	Mexico Rd at Dardenne Creek Bridge Rehabilitation & Widening		
Limits:	W Sunny Hill Boulevard to 0.1 miles east		
Lane Miles:	0.4		
Federal Functional Classification:	1 - Principal Arterial		
Anticipated useful life of the proposed improvements (years):	25	**Estimated date of completion:**	09/30/2024

Bridge Information

Traffic Volume ADT:	**Existing**	24,000	**Future**	24,500
Bridge Sufficiency Rating:	58.7			

PROJECT DESCRIPTION

The purpose of the Mexico Rd at Dardenne Creek Bridge Maintenance project is to perform necessary maintenance items specified by the 2020 MoDOT Inspection Report and by the 20TTAP-04 BEAP St. Charles County 3885008 Mexico Road over Dardenne Creek report in order to extend the useful life of the bridge owned and maintained by the City of St. Peters. Completion of this work will comply with the Preventative Maintenance Agreement that MoDOT has executed with FHWA and the City of St. Peters has adopted.

The project includes the following items: upgrade existing guardrail to meet current standards, epoxy polymer deck overlay to fill existing cracks and preserve the deck and concrete barrier, repair wing wall cracking, install rip-rap to address erosion concerns, remove and replace approach slabs, remove and replace settled sidewalk, replace rusted/damaged fence fabric, and restripe bridge after overlay.

The bridge widening will provide a compliant connection to the existing multi-use path across the bridge. This route is recognized in the St. Charles County Greenway Master Plan as an extension of the Dardenne Greenway. The route will provide a vital link between the City of Cottleville and the northern limits of the City of St. Peters by extending from St. Charles County Community College to Lakeside 370 Park. Future projects will extend the path to the south to the Katy Trail.

CONTACT INFORMATION

Sponsoring Agency:	City of St. Peters
Contact Person Name:	Amanda Rich
Title:	
Telephone Number:	(636) 477-6600 ext. 1423
E-mail Address:	arich@stpetersmo.net

SIGNATURE

signature

3/31/22

date

APPENDIX D

East-West Gateway STP-S Application

Mexico Rd at Dardenne Creek Bridge Rehabilitation & Widening

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Project Application Form

Surface Transportation Block Grant Program

2021 Call for Projects

For the St. Louis Region

Bridge Project Type

Sponsoring Agency: City of St. Peters

Project Title: Mexico Rd at Dardenne Creek Bridge Maintenance

Federal Amount Requested: $447,036

Applications Due: February 11, 2021 by 4:00 pm

EAST-WEST GATEWAY
Council of Governments

Creating Solutions Across Jurisdictional Boundaries

November 6, 2020

Surface Transportation Block Grant Program (STP-S)
Bridge – Project Application Form

Please refer to the STP-S Project Development Workbook and the STP-S Scoring Criteria Guide for more information on the program requirements, available funding, and scoring criteria. The STP-S Project Development Workbook, STP-S Scoring Criteria Guide, and supplement materials are available on the East-West Gateway Council of Governments (EWG) STP-S Call for Projects web page.

PLEASE NOTE:

This project application form is for the bridge project type. There are separate project application forms for the other project types, including: road, traffic flow, safety, active transportation, transit, and freight/economic development. If your agency is interested in applying for those project types, please obtain the application form from the EWG STP-S Call for Projects web page, or contact EWG staff for more information.

The call for projects begins on **November 6, 2020** and ends on **February 11, 2021** at 4:00 pm. Applications received after the deadline will not be accepted. Submit the completed application and necessary attachments electronically to EWG at stps@ewgateway.org. Save the electronic copy as a PDF file using the following format: 2021STPS_[Sponsor]_[Project Name].pdf. The electronic submission must include scanned signatures and attachments. Please submit one application per email. You will receive an email confirmation within one business day of submittal. If you do not receive confirmation or have questions about the application, contact EWG staff. Note that hard copies cannot be accepted as East-West Gateway's offices are currently closed. The information provided in this application is public record.

Project sponsors wanting feedback on applications may submit a preliminary copy by **January 7, 2021** to EWG at stps@ewgateway.org. EWG staff will review the applications submitted and will return comments by email by **January 21, 2021**. If a preliminary application is submitted for feedback, a final application must still be submitted by **February 11, 2021**.

Contact Information

Jason Lange, TIP Coordinator
East-West Gateway Council of Governments
One Memorial Drive, Suite 1600
St. Louis, MO 63102-2451
E-mail: stps@ewgateway.org

STP-S Call for Projects web page: http://www.ewgateway.org/transportation-planning/transportation-improvement-program/competitive-transportation-programs/call-for-projects-stp-s/

Project Checklist and Submittal Requirements

The evaluation and scoring of all projects will be based on the answers provided in the application and the attachments submitted.

The materials should be submitted in the following order.

Project Application:

- ☑ **Project application fee** – ½ of one percent of federal funds requested. Make checks payable to "East-West Gateway Council of Governments" or "EWGCOG" or contact staci.alvarez@ewgateway.org to set up electronic funds transfer.
- ☑ **Completed STP-S application**
- ☑ **Scanned required signatures** – Notification of Title VI & Nondiscrimination Requirements, Financial Certification of Matching Funds, Person of Responsible Charge Certification, Right-of-Way Acquisition Certification Statement, Policy on Reasonable Progress Certification (Missouri only).

Attachment A:

- ☑ **Project location map** – depict the location of the project on a base map such as a town road map, GIS map, aerial photo, or another base map suitable to clearly show the project's overall location. Provide on an 8 ½ x 11 page. Project location is used by EWG to determine:
  - geographic scale project categorization (i.e., 'within community' or 'outside community')
  - score for Environmental Justice
  - score for employment density
- ☑ **Detailed cost estimate** – use Estimate of Project Costs excel file provided by EWG.
- ☐ **Letter of permission from facility owner** – provide if sponsor does not own roadway.
- ☐ **Letter of support from match source** – provide if individual, business, other local public agency, or other third-party is providing matching funds.
- ☐ **Coordination letter(s)** – provide if sponsor requires coordination with other agencies to implement the project (e.g., Bi-State Development, St. Clair County Transit District).

Attachment B:

- ☑ **Photographs** – attach photo(s) of the current bridge.
- ☑ **Detailed map** – if applicable, provide a map showing:
  - activity centers within ½ mile of project limits (e.g., a business district, retail center, medical facility, community center, park)
  - schools located within ½ mile of project limits
- ☐ **Roadway realignment diagram** – if applicable, provide a diagram showing existing and proposed vertical or horizontal realignment of the connecting roadway.
- ☑ **Typical bridge section** – show details of before and after bridge improvements.
- ☑ **Bridge condition** – attach State-issued inspection report or other documentation from State DOT showing bridge condition.
- ☑ **Preventive maintenance activities** – provide documentation from FHWA showing its approval of proposed preventive maintenance plan. Include list showing at least the bridges that are part of the program, ADT, sufficiency rating, maintenance activity, maintenance cost, when the structure is due for replacement, and the cost to replace the structure (in present dollars). Documentation must show that project will extend life of bridges. Required only for preventive maintenance projects.

Attachment C: *(optional)*

- [x] **Documentation of an approved or adopted plan, ordinance, and/or policy that supports the project** – do not attach entire plan documents, only include the necessary pages.
- [ ] **Letters of support** – endorsements or petitions from associations, boards, school districts, citizens, businesses, etc. Only attach letters of support that pertain to specific project.
- [x] **Documentation of public involvement process** – public meeting minutes, newspaper clippings, press announcements, etc.

Attachment D:

- [x] **Operations and maintenance** – use Operations and Maintenance Form provided by EWG. Only submit one per sponsor.
- [ ] **ITS architecture consistency** – submit ITS Architecture Project Consistency Statement Form provided by EWG if project includes ITS elements or modifies existing ITS.

SUBMITTAL TYPE (CHECK ONE):

- [ ] Preliminary application (for comments) – Due **January 7, 2021**
- [x] Final application – Due **February 11, 2021**

SPONSOR INFORMATION

Sponsoring agency:	City of St. Peters						
Secondary sponsor agency (if applicable):							
Chief Elected Official/Chief Executive Director:							
Name:	Len Pagano			Title:	Mayor		
Street address:	P.O. Box 9, One St. Peters Centre Boulevard						
City:	St. Peters	State:	MO	County:	St. Charles	ZIP code:	63376
Project contact:							
Name:	Amanda L. Rich, PE, PTOE			Title:	Director of Transportation		
Agency:	City of St. Peters						
Street address:	P.O. Box 9, One St. Peters Centre Boulevard						
City:	St. Peters	State:	MO	County:	St. Charles	ZIP code:	63376
Phone Number:	636-477-6600 ext. 1423			E-mail address:	arich@stpetersmo.net		
Application contact:							
Name:	Amanda L. Rich, PE, PTOE			Phone Number:	636-477-6600 ext. 1423		
E-mail address:	arich@stpetersmo.net						

PROJECT INFORMATION

Project title:	Mexico Rd at Dardenne Creek Bridge Maintenance

Project status: ☑ New project ☐ Continuation of STP-S/CMAQ/TAP project ☐ Add to existing non-federally funded project	Is this application request for a piece of a larger project (phase) or the entire length of project? ☐ Phase ☑ Full project

If project is a continuation of another project that was previously programmed in the TIP, provide TIP ID # of existing project and also explain this relationship:

If this project is a phase of a full project, how many phases are left to complete the project? Briefly explain each phase (i.e., project limits and general improvements):

Has your agency previously competed for funds for this specific project?
☐ Yes ☑ No

If yes, when?

Does this project touch MoDOT or IDOT right-of-way?
☐ Yes ☑ No
If yes, a letter of support for this project is required from the state DOT.

Does the sponsoring agency own and maintain this facility?
☑ Yes ☐ No
If no, a letter of support for this project is required from the facility owner.

If no, who owns the facility?	

ROADWAY INFORMATION				
Name of street or facility to be improved:	Mexico Road			
Project length (miles):	0.1			
Feature crossed (e.g., Fee Fee Creek):	Dardenne Creek			
Federal functional classification of road (per EWG)[1]:	Principal Arterial			
Bridge sufficiency rating:	58.7%			
Bridge identification number (federal ID):	3885008			
	CURRENT:		DESIGN YEAR[2]:	
Traffic volumes (AADT):	24,000	Year: 2021	24,500	Year: 2025
Identify source of AADT[3]:	Local Agency		Local Agency	
Speed limit of street (mph):	40		40	
Bridge width (feet):	52 ft		52 ft	
Deck width (curb to curb):	60 ft 8.4 in		60 ft 8.4 in	
Number of through lanes (both directions):	4		4	
Number of turn lanes:	0		0	
Two-way left turn lanes?	☐ Yes ☑ No		☐ Yes ☑ No	
Typical lane width (feet):	12 ft		12 ft	
Outside lane width (feet):	13 ft		13 ft	
Shoulder width (feet):	N/A		N/A	
On-street parking allowed?	☐ Yes ☑ No		☐ Yes ☑ No	
Curb and gutter?	☑ Yes ☐ No		☑ Yes ☐ No	
Sidewalks?	☑ One side ☐ Both sides ☐ None		☑ One side ☐ Both sides ☐ None	
Sidewalk width (feet):	5 ft 4 in		5 ft 4 in	
Existing sidewalk surface condition[4]:	☐ Poor ☑ Fair ☐ Good ☐ Excellent ☐ None		n/a	
On-road bicycle facility[5]?	☐ Yes ☑ No		☐ Yes ☑ No	
On-road bicycle facility width:				
Shared-use path/sidepath?	☐ Yes ☑ No		☐ Yes ☑ No	
Shared-use path/sidepath width (feet):	Path on parallel bridge		Path on parallel bridge	

Explain how the design year AADT was calculated:

An increase of 1/2% per year increase in future traffic volume was assumed.

[1] EWG Functional Classification maps: http://www.ewgateway.org/transportation-planning/roadway-functional-classification/.

[2] Design year is 20 years after construction

[3] If source is state DOT, use data from most recent available year. If source is a count conducted by the local agency, must be within five years.

[4] **Poor**: the sidewalk has deep cracking and buckling, poor drainage, or a bulging surface (due to tree roots). Impassable to mobility impaired pedestrians. **Fair**: the sidewalk contains cracks or an uneven and distressed surface. Hinders mobility of the average pedestrian. **Good**: the sidewalk is free from significant cracking, buckling, or gravel surfaces. Unlikely to hinder mobility of the average pedestrian. **Excellent**: the sidewalk is in like new condition and contains no cracking or buckling. Does not hinder mobility of the average pedestrian. **None**: no sidewalk is present.

[5] On-road bicycle facility includes: bike lanes (separated, buffered, and standard). Shared-lane markings (sharrows) and share the road/bikes may use full lane signage are not bicycle facilities. View the EWG Bicycle Planning Guide for a description on bicycle facilities: https://www.ewgateway.org/wp-content/uploads/2018/07/BicyclePlanningGuide_June2018.pdf.

LAND ACQUISITION INFORMATION

Status of right-of-way acquisition (all properties, permanent and/or temporary easements, Temporary Slope Construction License (TSCL), and other rights-of-way):

- [x] All acquired or none needed
- [ ] In process
- [ ] Not started

If applicable, list the number of parcels to be acquired (all properties, permanent and/or temporary easements, TSCL, and other rights-of-way):

No additional right of way is anticipated

If any residential or commercial displacements are anticipated, give details on how many and if they are residential and/or commercial:

None

Right-of-way acquisition by:	N/A
Right-of-way condemnation by:	N/A

Will the project traverse any public property, such as a public park that has used federal funds (e.g., Land and Water Conservation Funds) in the past?

- [ ] Yes [x] No [ ] Unknown

UTILITY COORDINATION

Note: *project sponsor must coordinate with utilities prior to construction.*

Will the project involve any coordination with utilities?

- [ ] Yes [x] No

If yes, check the appropriate box to select the type of utility. Then give the names of the utility companies.

[ ] Electric	
[ ] Phone	
[ ] Gas	
[ ] Water	
[ ] Cable TV	
[ ] Storm sewer	
[ ] Sanitary sewer	
[ ]	
[ ]	

Give details concerning potential utility conflicts, problems, or issues:

No utility conflicts are anticipated as this ia a maintenance project.

Utility coordination completed by:	N/A
Designed by:	N/A
Inspected by:	N/A

RAILROAD COORDINATION

Does the project traverse any property owned by a railroad?
☐ Yes ☑ No

Is there a railroad within 500' of project limits?
☐ Yes ☑ No

Name of railroad:	
Number of crossings impacted:	
Are the crossings active?	☐ Yes ☐ No
Width of crossing:	

What is the crossing type?
☐ Timber
☐ Rubberized
☐ Asphalt
☐ Concrete
☐ Other

Describe other:

PROJECT MAINTENANCE

List any regular maintenance tasks anticipated over the next 25 years:

Silane deck and barrier sealant
Other maintenance as recommended by MoDOT bi-annual bridge inspection

Estimated annual cost to maintain facility and funding source(s):

$15,000 yearly programmed in City's Transportation Trust Fund. funded by 0.5% City of St. Peters transportation sales tax.

AMERICANS WITH DISABILITIES ACT

Under the 1990 Americans with Disabilities Act (ADA), Title II requires public entities with more than 50 employees to complete a self-evaluation and create an effective ADA transition plan[6].

Does your local public agency have more than 50 employees?
☑ Yes ☐ No

If yes, does your agency have an adopted ADA transition plan?
☑ Yes ☐ No

If your agency has an ADA transition plan, when was it adopted?	February 2019
If ADA transition plan is not adopted, when is it expected to be adopted?	

[6] FHWA Questions and Answers about ADA/Section 504: https://www.fhwa.dot.gov/civilrights/programs/ada/ada_sect504qa.cfm.

PROJECT DESCRIPTION

Define the **scope** and **specific elements** of the project. Describe current conditions / problems / issues that the project will address. Be as specific as possible.

The purpose of the Mexico Rd at Dardenne Creek Bridge Maintenance project is to perform necessary maintenance items specified by the 2020 MoDOT Inspection Report and by the 20TTAP-04 BEAP St. Charles County 3885008 Mexico Road over Dardenne Creek report in order to extend the useful life of the bridge owned and maintained by the City of St. Peters. Completion of this work will comply with the Preventative Maintenance Agreement that MoDOT has executed with FHWA and the City of St. Peters has adopted.

The project includes the following items: upgrade existing guardrail to meet current standards, epoxy polymer deck overlay to fill existing cracks and preserve the deck and concrete barrier, repair wing wall cracking, install rip-rap to address erosion concerns, remove and replace approach slabs, remove and replace settled sidewalk, replace rusted/damaged fence fabric, and restripe bridge after overlay.

PREVENTIVE MAINTENANCE

Note: complete only if preventive maintenance activity is proposed.

How many bridges are proposed?	1

How will the preventive maintenance activities extend the life of the bridge structures?

Epoxy polymer deck overlay will seal existing surface cracks and provide a new wearing surface. New guardrail will better protect the bridge ends and increase safety. Repairing the cracked wing wall will ensure that it will not fail and cause more costly damage. Settling sidewalk will be replaced to make the bridge ADA compliant. All proposed work will preserve the bridge and extend the useful life of the structure.

Have the preventive maintenance activities been approved by FHWA?

☑ Yes ☐ No

COMMUNITY SUPPORT

Describe the public involvement activities to date on the proposed project:

The FY 2021 Capital Improvement Plan, ADA Transition Plan and the Annual Budget have been made available to the public.

PROJECT DEVELOPMENT SCHEDULE

Note: *many stages can occur concurrently.*

Activity Description	Start Date (MM/YYYY)	Finish Date (MM/YYYY)	Time Frame (Months)
Receive notification letter	10/2021	10/2021	1
Execute agreement (project sponsor and DOT)	11/2021	01/2021	3
Engineering services contract submitted and approved*	10/2022	12/2022	3
Obtain environmental clearances (106, CE2, T&E, etc.)	10/2021	05/2023	20
Public meeting/hearing			
Develop and submit preliminary plans	01/2023	03/2023	3
Preliminary plans approved	04/2023	05/2023	2
Develop and submit right-of-way plans			
Review and approval of right-of-way plans			
Submit and receive approval for notice to proceed for right-of-way acquisition (A-Date)*			
Right-of-way acquisition			
Utility coordination			
Develop and submit PS&E	06/2023	09/2023	4
District approval of PS&E/advertise for bids*	10/2023	12/2023	3
Submit and receive bids for review and approval	01/2024	03/2024	3
Project implementation/construction	04/2024	09/2024	6

* Finish date must match fiscal year for each milestone shown in **bold** text.

FINANCIAL PLAN

Note: *federal participation for a phase of work must not exceed 80% in Missouri for all phases of work and 80% in Illinois for construction/construction engineering phase only. In Illinois, PE and right-of-way must be paid with local funds.*

Activity[7]	Starting Federal Fiscal Year[8]	Total Phase Cost	STP-S Funds Requested	Sponsor Share	Sponsor Share Percentage
PE / Planning / Environmental Studies	FY 2023	$ 65,331	$ 52,265	$ 13,066	20.00%
Right-of-Way	FY	$ 0	$ 0	$ 0	0.00%
Construction Engineering	FY	$ 0	$ 0	$ 0	0.00%
Construction / Implementation	FY 2024	$ 493,464	$ 394,771	$ 98,693	20.00%
TOTAL PROJECT COST		$ 558,795	$ 447,036	$ 111,759	20.00%

Identify the source(s) of local matching funds (e.g., state DOT, city, county, county road board, county motor fuel tax, private entity), and the amount for each source:	City of St. Peters

[7] **Illinois**: construction/construction engineering funds are available in FY 2025.
Missouri: preliminary engineering funds are available in FY 2023, right-of-way in FY 2023 or FY 2024, and construction/construction engineering in FY 2024 or FY 2025. **Note:** FY 2024 construction/construction engineering must be less than $1 million federal.
[8] Fiscal years are federal fiscal years (October 1 through September 30).

SAFETY	
What is the deck condition rating (0-9)?	6
What is the superstructure condition rating (0-9)?	5
What is the substructure condition rating (0-9)?	5
What is the culvert condition rating, if applicable (0-9)?	N/A

MULTIMODAL

Does the proposed project incorporate any of the following bicycle-related improvements?

- ☐ Separated bike lane/cycle track/protected bike lane
- ☐ Shared-use path/trail
- ☐ Buffered bike lane
- ☐ Standard bike lane (not buffered)
- ☐ Marked shared roadway (shared-lane markings, "sharrow")
- ☐ Paved shoulder
- ☐ Other
- ☑ None

Describe the bicycle-related improvements (including 'other') in detail:

Does the proposed project incorporate any of the following pedestrian-related improvements?

- ☐ New sidewalks (where none currently exist)
- ☑ Sidewalk spot slab improvements
- ☐ Sidewalk reconstruction
- ☐ Construction of new curb ramps (where none currently exist)
- ☐ Curb ramp reconstruction
- ☑ Railing or protective screening/concrete barrier
- ☐ Pedestrian-scale lighting (e.g., glare shielded, lower height (12' to 16'), in-pavement)
- ☐ Other
- ☐ None

Describe the pedestrian-related improvements (including 'other') in detail:

Replacement of settled sidewalk sections and replacement of rusted/damaged chain link fence fabric.

Is the project within ½ mile of a school (grades K-12 and college/university)?

☑ Yes ☐ No

If yes, identify the school(s):

Mid Rivers Elementary School

Is the project within ½ mile of an activity center, employment center, or community resource (e.g., a business district, retail center, medical facility, community center, park)? ☑ Yes ☐ No
If yes, identify all activity centers, employment centers, and/or community resources (planned or existing): Dardenne Greenway Trail (Both City of St. Peters and GRG) City of St. Peters Woodlands Sports Park City of St. Peters Golf Course and Banquet Center (Water's Edge)

INTERMODAL CONNECTIONS	
Does the facility have a posted weight limit? ☐ Yes ☑ No	
If yes, what is the posted weight limit?	

NOTIFICATION OF TITLE VI & NONDISCRIMINATION REQUIREMENTS

Title VI

A recipient of any federal funds from the U.S. Department of Transportation ("DOT") must comply with federal statutes, regulations, executive orders, and other pertinent directives that govern nondiscrimination in federally assisted programs. Below is a list of the statutes and regulations that may apply to a recipient's program; however, other federal requirements regarding nondiscrimination may be imposed by DOT.

A. Title VI of the Civil Rights Act of 1964, 78 Stat. 252, 42 U.S.C. §§ 2000d *et seq.*
B. All requirements imposed by or pursuant to the Code of Federal Regulations, Title 49: Transportation, Subtitle A: Office of the Secretary of Transportation, Part 21: *Nondiscrimination in Federally-Assisted Programs of the Department of Transportation—Effectuation of Title VI of the Civil Rights Act of 1964.*

As part of federal requirements, a recipient of funds from DOT must ensure that it has written policies and procedures in place to ensure nondiscrimination in its programs, up to and including, developing a Title VI Plan.

Nondiscrimination

A recipient of any federal funds from the U.S. Department of Transportation ("DOT") must comply with federal statutes, regulations, executive orders, and other pertinent directives that govern nondiscrimination in federally assisted programs. Below is a list of the statutes and regulations that may apply to a recipient's program; however, other federal requirements regarding nondiscrimination may be imposed by DOT.

A. Title VI of the Civil Rights Act of 1964, as amended, 42 U.S.C. § 2000d, and implementing regulations at 49 CFR Part 21 – *Nondiscrimination in Federally Assisted Programs of the Department of Transportation—Effectuation of Title VI of the Civil Rights Act.*
B. The equal employment opportunity provisions of 49 U.S.C. § 5332 and Title VII of the Civil Rights Act of 1964, 42 U.S.C. §§ 2000e *et seq.*, and implementing regulations, including;
    1. 41 CFR Part 60 – *Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor.*
C. Title IX of the Education Amendments of 1972, as amended, 20 U.S.C. §§ 1681 *et seq.*, and implementing regulations at 49 CFR Part 25 – *Nondiscrimination on the Basis of Sex in Education Programs or Activities Receiving Federal Financial Assistance.*
D. Section 504 of the Rehabilitation Act of 1973, as amended, 29 U.S.C. § 794, and the Americans with Disabilities Act of 1990, as amended, 42 U.S.C. §§ 12101 *et seq.*, and implementing regulations, including:
    1. 49 CFR Part 27—*Nondiscrimination on the Basis of Handicap in Programs and Activities Receiving or Benefiting from Federal Financial Assistance.*
    2. 49 CFR Part 37—*Transportation Services for Individuals with Disabilities (ADA).*
    3. 36 CFR Part 1192 and 49 CFR Part 38—*Americans with Disabilities (ADA) Accessibility Specifications for Transportation Vehicles.*
    4. 28 CFR Part 35—*Nondiscrimination on the Basis of Disability in State and Local Government Services.*
    5. 28 CFR Part 36—*Nondiscrimination on the Basis of Disability by Public Accommodations and in Commercial Facilities.*
    6. 41 CFR Subpart 101 – 119—*Accommodations for the Physically Handicapped.*
    7. 29 CFR Part 1630—*Regulations to Implement the Equal Employment Provisions of the Americans with Disabilities Act.*
    8. 47 CFR Part 64, Subpart F—*Telecommunications Relay Services and Related Customer Premises Equipment for the Hearing and Speech Disabled.*
    9. 36 CFR Part 1194—*Electronic and Information Technology Accessibility Standards.*

10. 49 CFR Part 609—*Transportation for Elderly and Handicapped Persons*.
11. Federal civil rights and nondiscrimination directives implementing those federal laws and regulations, unless the federal government determines otherwise in writing.

E. The Age Discrimination Act of 1975, as amended, 42 U.S.C. §§ 6101 *et seq*.
F. The Age Discrimination in Employment Act, 29 U.S.C. §§ 621 through 634, and implement regulations of the U.S. Equal Employment Opportunity Commission at 29 CFR Part 1625—*Age Discrimination in Employment Act*.
G. The Drug Abuse Office and Treatment Act of 1972, as amended, 21 U.S.C. §§ 1101 *et seq.*, the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970, as amended, 42 U.S.C. §§ 4541 *et seq.*, and the Public Health Service Act of 1912, as amended, 42 U.S.C. §§ 290dd through 290dd-2.
H. Executive Order 12898—Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, 42 U.S.C. § 4321 note, and DOT Order 5620.3 at Federal Register Vol. 62 No. 18377—*Department of Transportation Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*.
I. Executive Order 13166 – Improving Access to Services for Persons with Limited English Proficiency, 42 U.S.C. § 2000d – 1 note, and implementing policy guidance at Federal Register Vol. 70 No. 74087—*DOT Policy Guidance Concerning Recipients' Responsibilities to Limited English Proficiency (LEP) Person*.

By submitting its application as part of the TIP process and signing below, the Project Sponsor certifies that it has reviewed the federal requirements regarding nondiscrimination in federally assisted programs and believes that the Project Sponsor complies with the required policies and procedures.

Also, the Project Sponsor acknowledges its understanding that if the Project Sponsor does not have the required policies and procedures in place prior to federal funds being obligated, then the Project Sponsor's project may become ineligible for federal funding.

Amanda L. Rich, PE, PTOE
Name (print)

Director of Transportation
Title


Signature

2/5/21
Date

FINANCIAL CERTIFICATION OF MATCHING FUNDS

This is to ensure sufficient funds are available to pay the non-federal share of project expenditures for the following project to be funded under the provisions of the Fixing America's Surface Transportation (FAST) Act.

Project Title: Mexico Rd at Dardenne Creek Bridge Mai

Local Match Amount: $111,759

Sponsoring Agency: City of St. Peters

Chief Elected Official (or Chief Executive Officer):

Name (print): Russell W. Batzel,City Administrator

Signature: Russell Batzel

Date: 2-5-21

Chief Financial Officer:

Name (print): Beth French, Director of Finance

Signature: Beth French

Date: 02/08/2021

PERSON OF RESPONSIBLE CHARGE CERTIFICATION

The key regulatory provision, 23 CFR 635.105 – Supervising Agency, provides that the State Transportation Agency (STA) is responsible for construction of federal-aid projects, whether it or a local public agency (LPA) performs the work. The regulation provides that the STA and LPA must provide its full-time employee to be in "responsible charge" of the project.

The undersigned employee(s) of the Project Sponsor will act as person of responsible charge. If at any point the employee leaves the LPA, the LPA is responsible for finding a suitable replacement and notifying EWG. If the person of responsible charge is found to not be a full-time employee of the LPA, it will result in the loss of federal funds for this project. One employee can act as person of responsible charge for all three phases. All three phases must be signed.

Person of Responsible Charge – Design Phase

Name (print): Amanda L. Rich, PE, PTOE

Title: Director of Transportation Email: arich@stpetermo.net

Signature: 

Date: 2/5/21

Person of Responsible Charge – Right-of-Way Acquisition Phase

Name (print): Amanda L. Rich, PE, PTOE

Title: Director of Transportation Email: arich@stpetersmo.net

Signature: 

Date: 2/5/21

Person of Responsible Charge – Construction/Implementation Phase

Name (print): Amanda L. Rich, PE, PTOE

Title: Director of Transportation Email: arich@stpetersmo.net

Signature: 

Date: 2/5/21

RIGHT-OF-WAY ACQUISITION CERTIFICATION STATEMENT

The State Department of Transportation and the Federal Highway Administration (FHWA) have the right and responsibility to review and monitor the acquisition procedures of any federally funded transportation project for adherence to The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970. Those projects found in non-compliance may jeopardize all or part of their federal funding.

A. The Project Sponsor hereby certifies that any right-of-way, and/or permanent or temporary easements necessary for this project, obtained prior to this application, were acquired in accordance with The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970.

B. The Project Sponsor also certifies that any additional right-of-way, and/or permanent or temporary easements, subsequently required to complete the project, will be acquired according to The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970.

Amanda L. Rich, PE, PTOE
Name (print)

Director of Transportation
Title


Signature

2/5/21
Date

POLICY ON REASONABLE PROGRESS CERTIFICATION – MISSOURI SPONSORS ONLY

Following on the next page is a copy of the policy on reasonable progress adopted by the East-West Gateway Council of Governments Board of Directors.

The undersigned representative of the Project Sponsor hereby certifies that s/he has read this policy and understands its requirements. The representative acknowledges that failure to meet all of the reasonable progress requirements could result in federal funds being revoked and returned to the regional funding pool, as dictated by the policy.

Amanda L. Rich, PE, PTOE

Name (print)

Director of Transportation

Title

Signature

2/5/21

Date

POLICY ON REASONABLE PROGRESS – MISSOURI SPONSORS ONLY

Reasonable Progress

For projects or programs included in the Transportation Improvement Program (TIP), "reasonable progress" will have been made if the project has advanced to the point of obligating all federal funds programmed for that project in the current fiscal year, regardless of the phase of work (*i.e., preliminary engineering, right-of-way acquisition, or plans, specifications, and estimates*). If a project fails to obligate the programmed federal funds by September 30 of the current year, the funding will be forfeited and returned to the regional funding pot. Actual progress toward implementation is measured against the schedule submitted by the Project Sponsor in the project application.

Policy Procedures and Enforcement

Projects that do not obligate all federal funds by the Board-approved suspense date will be removed from the TIP and the federal funds associated with those projects will be returned to the regional funding pool for redistribution. The removal of projects from the TIP will require no further Board action and the sponsor will have to repay any federal funds already spent if the funding is forfeited.

If a project is realizing delays that will put the federal funding at risk of forfeiture (*i.e., not meet a September 30 deadline*), the Project Sponsor will have the opportunity to ask for consideration of a "one-time extension" in their project schedule. The one-time extension can only be requested for the implementation/construction phase of the project. The extension request will only be considered once a year, and has to be made before June 1 of the current fiscal year of the TIP.

To be considered for this extension the Project Sponsor has to demonstrate on all counts: a) the delay is beyond their control and the sponsor has done due diligence in progressing the project; b) federal funds have already been obligated on the project or in cases that no federal funds are used for PE and/or ROW acquisition, there has been significant progress toward final plan preparation; and c) there is a realistic strategy in place to obligate all funds.

One-time extensions of up to three (3) months may be granted by EWG staff and one-time extensions greater than three (3) months, but not more than nine (9) months, will go to the Board of Directors for their consideration and approval. Projects requesting schedule advancements will be handled on a case-by-case basis, subject to available funding, and are subject to the Board-adopted rules for TIP modifications.

Project Monitoring

An extensive monitoring program has been developed to help track programmed projects and ensure that funding commitments and plans are met. Monthly tracking reports are developed and posted on the EWG website, utilizing project information provided by the Project Sponsor, IDOT, and MoDOT district offices. Additionally, project sponsors are contacted at least every three (3) months by EWG staff for project status updates

Attachment A

Mexico Rd at Dardenne Creek
Bridge Maintenance
Project Location Map

Estimate of Project Costs

Project Sponsor:	City of St. Peters
Project Title:	Mexico Rd at Dardenne Creek Bridge Rehabilitation
Date:	1/25/2021

Specific Roadway Items

Item	Quantity	Unit	Unit Price	Amount
Guardrail	400	LF	$35.00	$14,000.00
Thrie Beam Anchor	4	EA	$2,700.00	$10,800.00
Transition Section	4	EA	$700.00	$2,800.00
Crashworthy End Terminal	4	EA	$3,000.00	$12,000.00
Epoxy Polymer Deck Overlay	1,617	SY	$37.50	$60,637.50
Remove Approach Slab	800	SY	$20.00	$16,000.00
Replace Approach Slab	800	SY	$150.00	$120,000.00
Remove & Replace Approach Pavement	680	SY	$85.00	$57,800.00
Repair Cracked Wing Wall	1	EA	$10,000.00	$10,000.00
Rip-rap	1	LS	$2,000.00	$2,000.00
Clean Drainage System	1	LS	$2,000.00	$2,000.00
Extend & Repair Drainage System	1	LS	$5,000.00	$5,000.00
Pavement Marking	2,300	LF	$5.00	$11,500.00
Mobilization	1	LS	$60,000.00	$60,000.00
Traffic Control	1	LS	$40,000.00	$40,000.00
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
			SUBTOTAL	**$424,537.50**

Specific Bicycle Items

Item	Quantity	Unit	Unit Price	Amount
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
			SUBTOTAL	**$0.00**

Specific Pedestrian Items				
Item	**Quantity**	**Unit**	**Unit Price**	**Amount**
Remove & Replace 4" Sidewalk	240	SF	$25.00	$6,000.00
Replace Chainlink Fence Fabric	1	LS	$5,000.00	$5,000.00
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
			SUBTOTAL	**$11,000.00**

Specific Transit Items				
Item	**Quantity**	**Unit**	**Unit Price**	**Amount**
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
			SUBTOTAL	**$0.00**

Miscellaneous Other Items				
Item	**Quantity**	**Unit**	**Unit Price**	**Amount**
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
			SUBTOTAL	**$0.00**

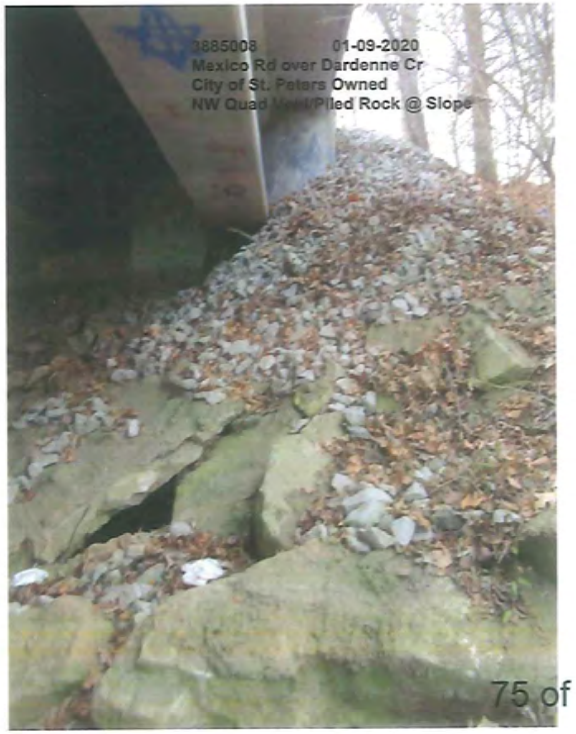
Construction Cost Total	**$435,537.50**
Contingency	**$43,553.75**
Inflation	**$14,372.74**
Preliminary Engineering	**$65,330.63**
Right-of-Way	
Construction Engineering/Inspection	
Project Total *	**$558,794.61**

* The project total cost should match the total cost reported in the project application.

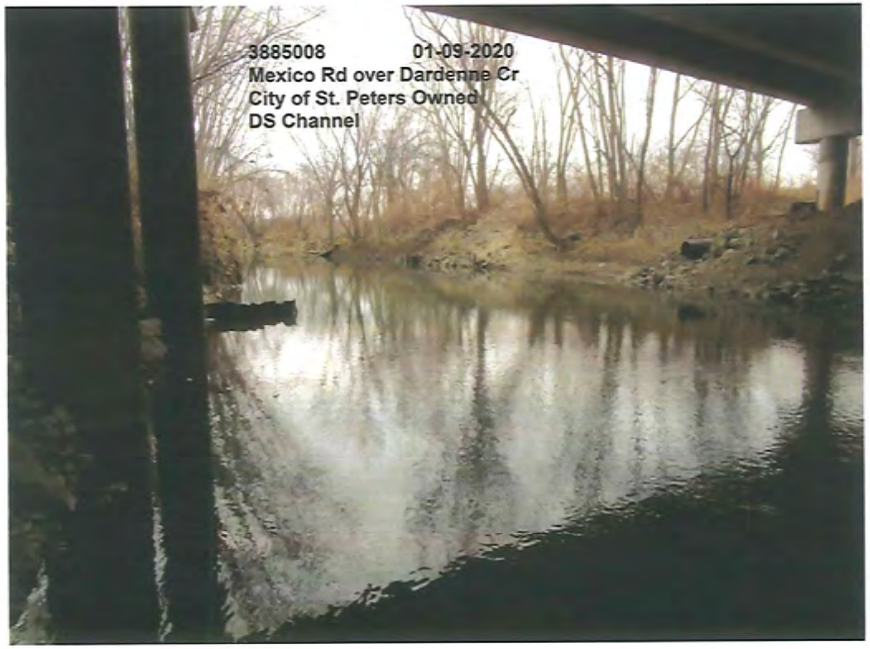
Add lines as needed.

Attachment B

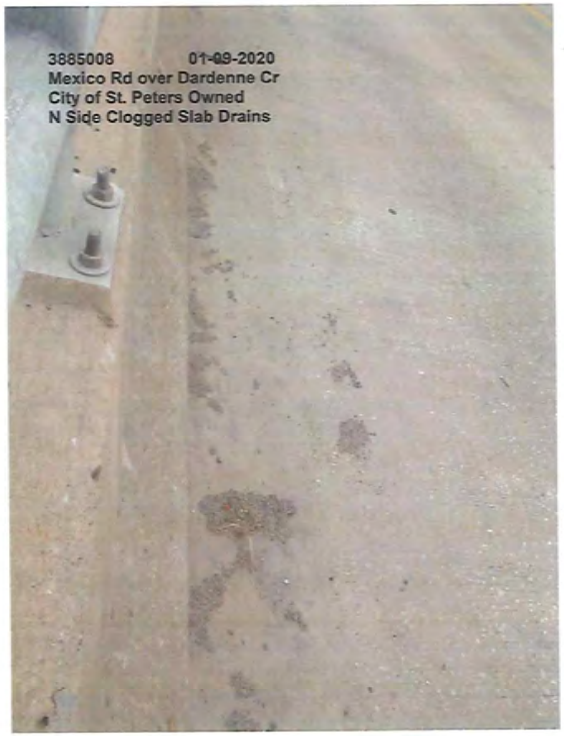
2020 NBI Inspection Photos - St. Peters

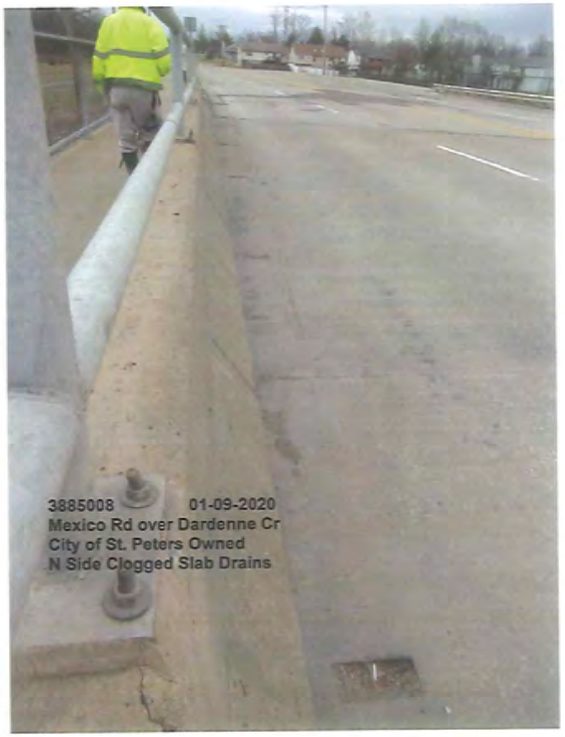


2020 NBI Inspection Photos - St. Peters



2020 NBI Inspection Photos - St. Peters

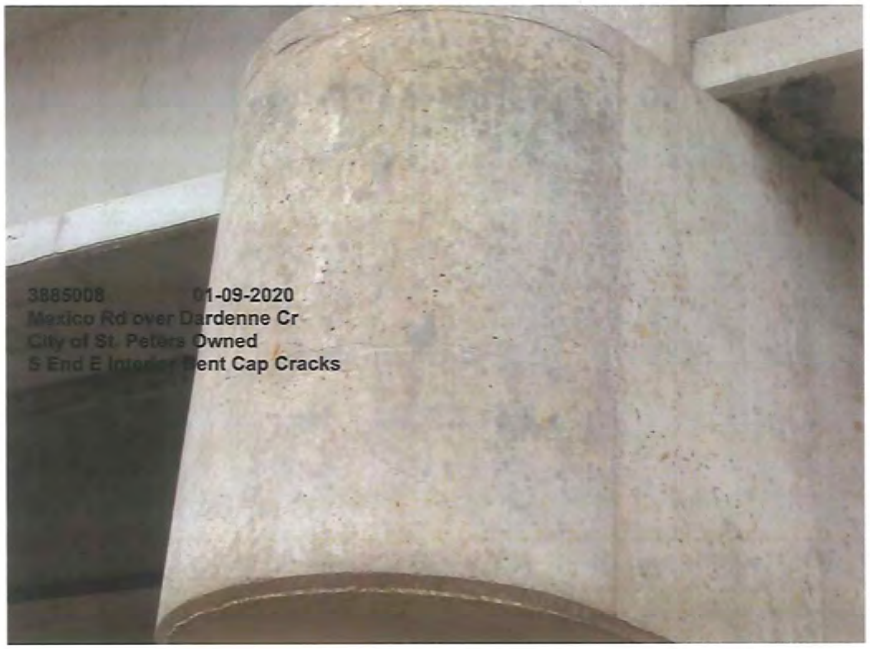

3885008 01-09-2020
Mexico Rd over Dardenne Cr
City of St. Peters Owned
N Side Clogged Slab Drains

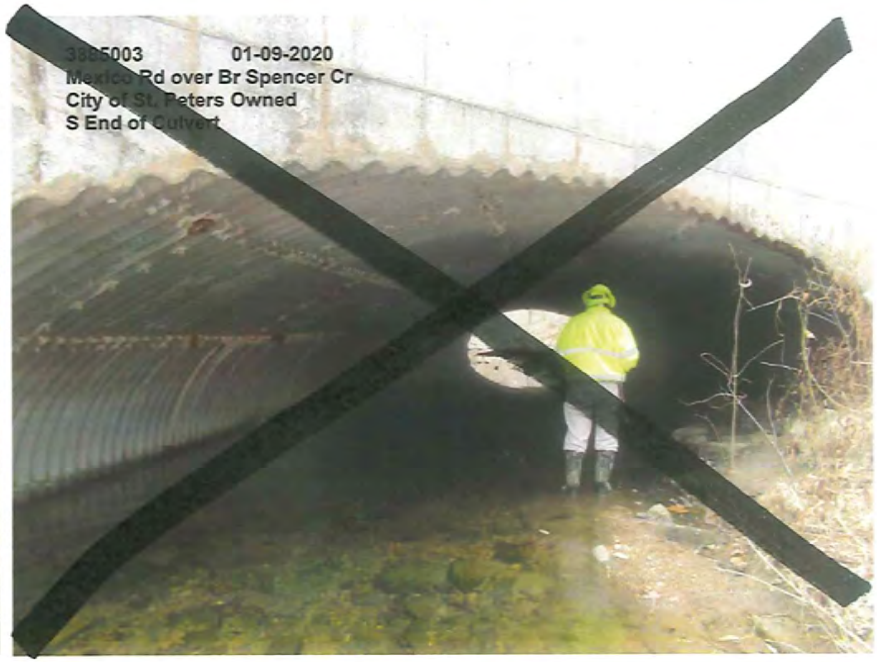

3885008 01-09-2020
Mexico Rd over Dardenne Cr
City of St. Peters Owned
N Side Clogged Slab Drains

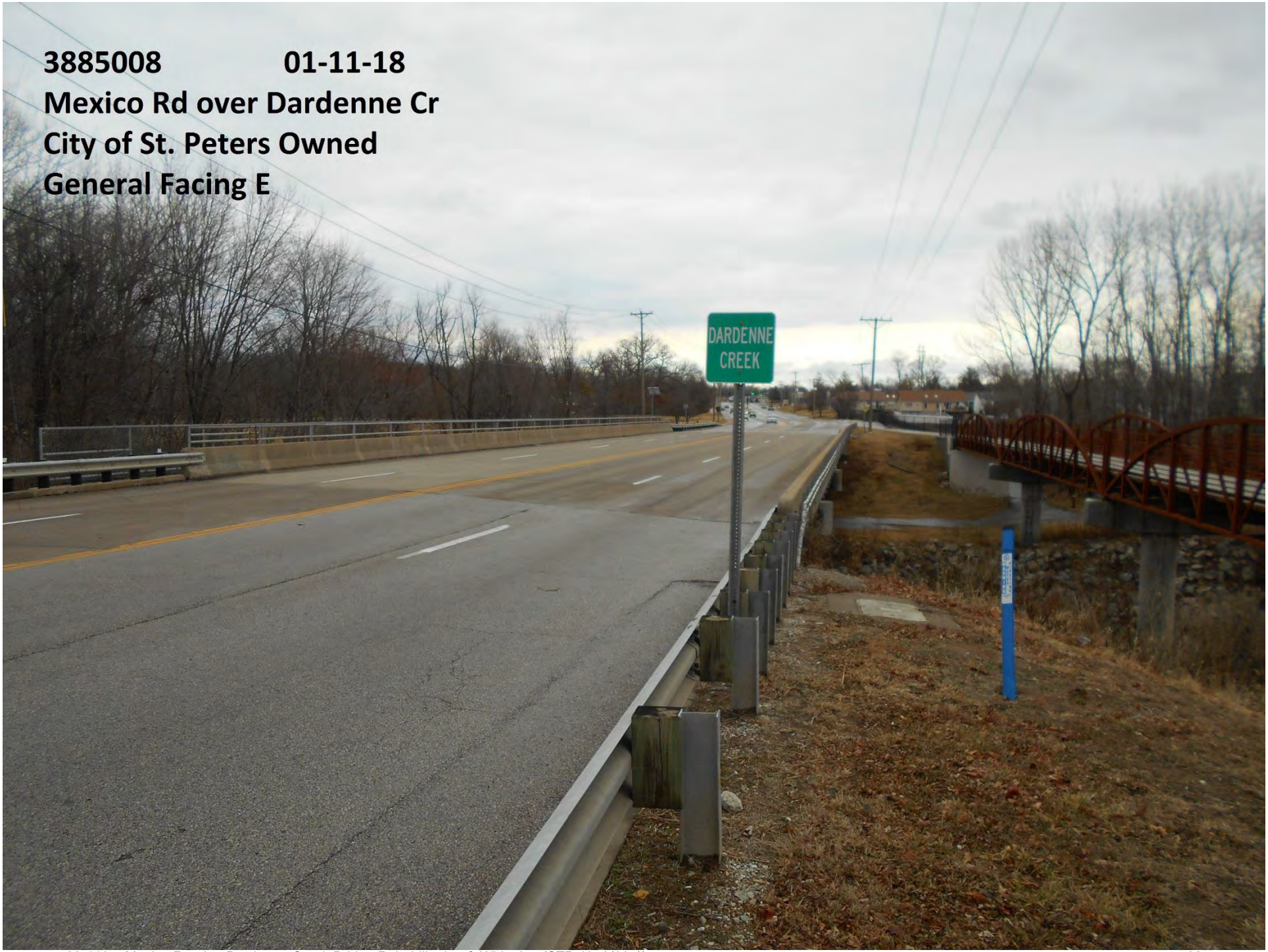

3885008 01-09-2020
Mexico Rd over Dardenne Cr
City of St. Peters Owned
E Appr Slab/Deck Joint


3885008 01-09-2
Mexico Rd over Dardenne
City of St. Peters Owned
NE Quad Sidewalk Broken

2020 NBI Inspection Photos - St. Peters






3885008 01-11-18
Mexico Rd over Dardenne Cr
City of St. Peters Owned
General Facing E
DARDENNE
CREEK


3885008 01-11-18
Mexico Rd over Dardenne Cr
City of St. Peters Owned
S Profile Facing E


3885008 01-11-18
Mexico Rd over Dardenne Cr
City of St. Peters Owned
Channel Facing N


3885008 01-11-18
Mexico Rd over Dardenne Cr
City of St. Peters Owned
Rebar Exp @ W Encasement


3885008 01-11-18
Mexico Rd over Dardenne Cr
City of St. Peters Owned
P/C Panel Leaching @ W Abut


3885008 01-11-18
Mexico Rd over Dardenne Cr
City of St. Peters Owned
NW Wing and Encasement Heavily Deteriorated


3885008 01-11-18
Mexico Rd over Dardenne Cr
City of St. Peters Owned
NW Wing - Heavy Erosion Underming Wing


3885008 01-11-18
Mexico Rd over Dardenne Cr
City of St. Peters Owned
Underdeck Facing E


3885008 01-11-18
Mexico Rd over Dardenne Cr
City of St. Peters Owned
NW Quad Sidewalk Void

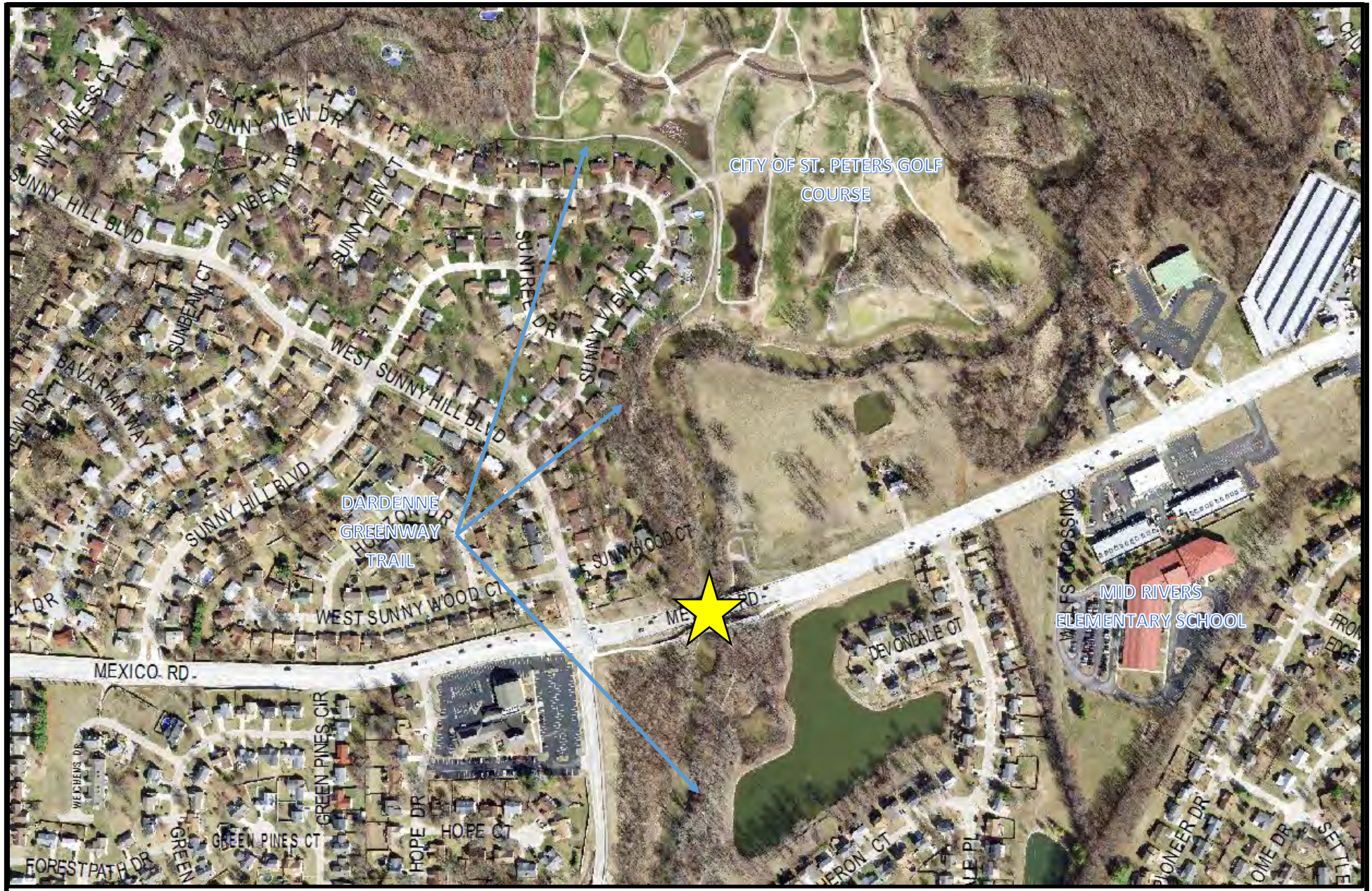

3885008 01-11-18
Mexico Rd over Dardenne Cr
City of St. Peters Owned
NW Wing Broken


3885008 01-11-18
Mexico Rd over Dardenne Cr
City of St. Peters Owned
Deck Facing E


3885008 01-11-18
Mexico Rd over Dardenne Cr
City of St. Peters Owned
NW Quad Broken Curb

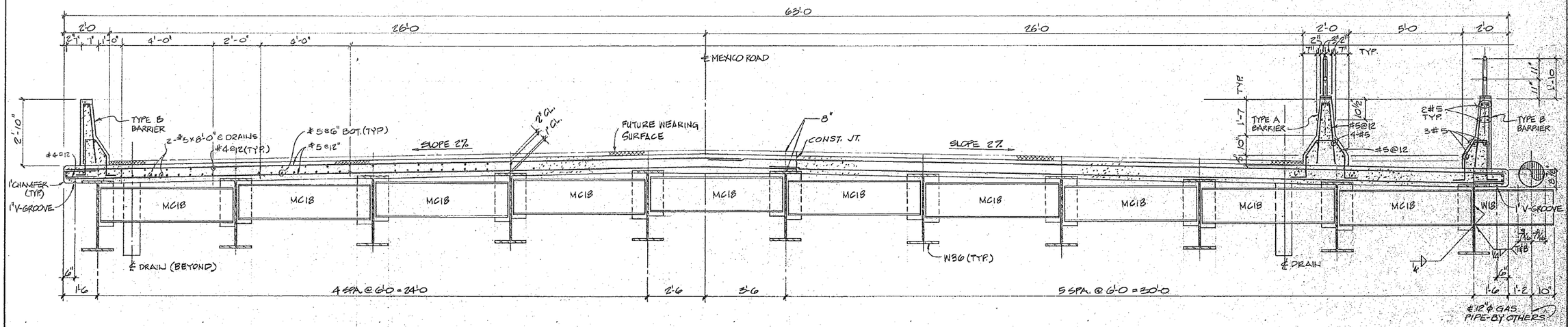

3885008 01-11-18
Mexico Rd over Dardenne Cr
City of St. Peters Owned
W Approach Slab @ Deck Jt


3885008 01-11-18
Mexico Rd over Dardenne Cr
City of St. Peters Owned
E Approach @ Deck Joint

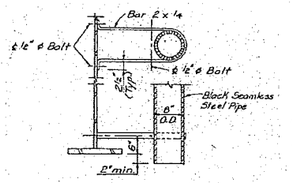


Mexico Road at Dardenne Creek
Detailed Map

N
W E
S

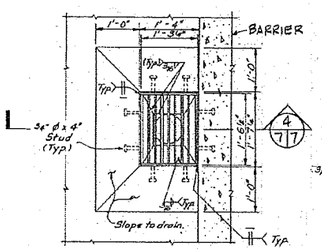


SECTION 1/6|7
1/2"=1'-0"

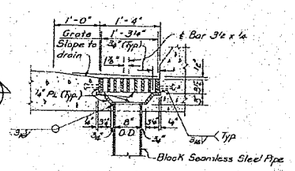


DRAIN PIPE ATTACHMENT

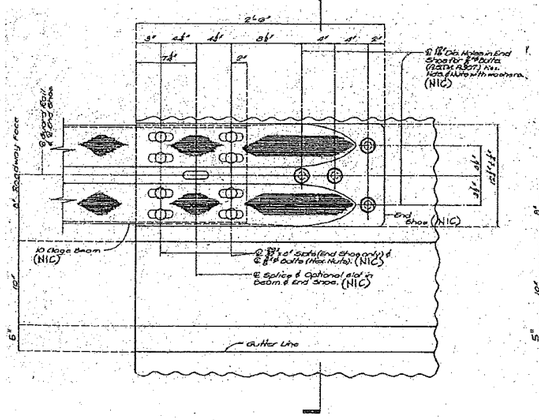
DETAIL 2|7|7



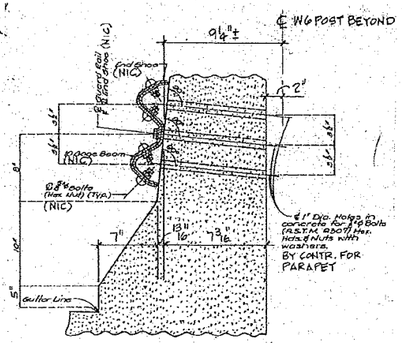
DETAIL 3|6|7



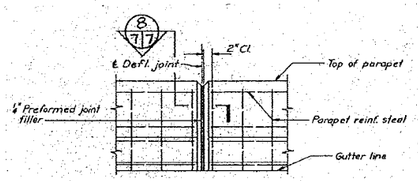
SECTION 4|7|7



SECTION 5|6|7

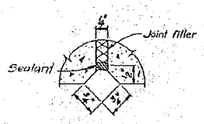


SECTION 6|7|7



DEFLECTION JOINT DETAIL

DETAIL 7|7|7



SECTION 8|7|7

DESIGNED BY:TJA DRAWN BY:ERW CHECKED BY:TJA

HAROLD COLTON NUMBER E-13458 REGISTERED PROFESSIONAL ENGINEER STATE OF MISSOURI

CLC Colton/Lester Corporation
Consulting Engineers & Surveyors
14622 South Outer Forty Road, Chesterfield, Missouri 63017
Telephone (314) 878-7007

BAX BAX ENGINEERING CO., INC.
221 Point West Blvd. St. Charles, Missouri 63301
946-6588 724-3330
Date: OCT., 1987 Order No.: 87-2621

7/13

Missouri Department of Transportation
Bridge Inventory and Inspection System
Non-State Structure Inspection Report

March 17, 2020
10:42:57am

County : ST. CHARLES **District :** SL **Class :** NONSTATBR **Bridge :** 3885008 1 **Federal ID :** 23080

GENERAL STRUCTURE INFORMATION

[5D] Route :	00000	[41] Structure Status :	A-OPEN - NO RESTRICTIONS
[4] Place Code :	65126 ST. PETERS CITY	[9] Location :	S 0 T 0 R 0
[6] Features Intersected :	DARDENNE CR	[22] Owner :	CITY
[7] Facility Carried :	MEXICO RD	[26] Functional Classification :	UOTHPRINAR
[16] Latitude :	38 47 14.57 (DMS)	[21] Maintenance Responsibility :	CITY
[17] Longitude :	90 38 41.02 (DMS)	[11] Milepoint :	5.14 MILES

AGE AND SERVICE - GEOMETRIC DATA - MATERIAL

[27] Year Built :	1988	[106] Year Reconstructed :	
[49] Structure Length :	228 FT.	[51] Bridge Width :	52 FT. 0 IN.
[32] Approach Roadway Width :	52 FT. 0 IN.	[52] Deck Width :	60 FT. 8.4 IN.
[42B] Type of Service Under :	WATERWAY	[28A] Lanes On :	4
[19] Detour Length :	4.96 MILES	[28B] Lanes Under :	0

COMPONENTS	# SPANS	PRED	MATERIAL	CONSTRUCTION
MAIN SERIES	3	X	PRESTRESSED CONCRETE	I-GIRDERS
[107] Deck Type :			REINCONC	CIP-P/C
[108A] Wearing Surface :			PLAINCONC	MONOLITHIC
[108B] Membrane :			NOTAPPLIC	NONE
[108C] Deck Protection :			EPOXYPOLYM	COATREBAR

AADT INFORMATION

[29] AADT on Structure :	22,000	[30] Year :	2018	[109] AADT Truck :	5 %
[114] Future AADT :	34,100	[115] Year :	2038	[102] Direction of Traffic :	2-WAY TRAFFIC

STRUCTURE POSTING

FIELD POSTING Problem Code : Problem Direction Code :
Category : S-1 NO POSTING REQUIRED
Ton 1 : Ton 2 : Ton 3 :

APPROVED POSTING
Category : S-1 NO POSTING REQUIRED
Ton 1 : Ton 2 : Ton 3 :

COMPUTER GENERATED DEFICIENCY AND EVALUATION ITEMS

NOTE: The items listed in this section are updated whenever computer edits are ran on a structure after the inspection updates have been entered in to TMS.

Rated Item	Rating	Rating Date
[Item 67] Structure Evaluation Rating:	5-BETTER THAN MINIMUM	1/18/2018
[Item 68] Deck Geometry Rating:	4-MEETS MINIMUM TOLERABLE	8/22/2002
[Item 69] Underclearance:	N-NOT APPLICABLE	3/1/2002
Sufficiency Rating:	58.7 %	1/18/2018
Deficiency:	NOT DEFICIENT	3/1/2002

Funding Eligibility:

Estimated New Structure Length:

Estimated Structure Cost:

Estimated Total Project Cost:

Year of Cost Estimate:

NOTE: The above structure length and cost estimates are computer generated using algorithims in the TMS system. These algorthims are generalized to use NBI items to come up with a new structure length and width to calculate a new area which is taken times a representative cost per square foot. The actual structure size and cost may vary significantly from these numbers once site specific engineering is done.

MoDOT	**Missouri Department of Transportation** **Bridge Inventory and Inspection System** **Non-State Structure Inspection Report**	**March 17, 2020** **10:42:57am**

County : ST. CHARLES **District :** SL **Class :** NONSTATBR **Bridge :** 3885008 1 **Federal ID :** 23080

****STRUCTURE GENERAL INSPECTION****

[90] Inspection Type: GENERAL **[91] Designated Frequency:** 24 **Inspection Responsibility:** DISTRICT

Inspection Date: 1/9/2020 **** Calculated Frequency:** 24 **Element Inspection Required:** YES

** If designated interval is exceeded, then a comment providing justification must be added. Exceeding the interval by more than one month requires Bridge Division approval.

General Inspection Comments

Inspector	Team Leader	Organization
CHUCK DOLEJSI	X	MODOT
KATE MARSHALL		MODOT

****UNDERWATER INSPECTION****

Inspection Category: SHALLOW-WADE **[92B] Designated Frequency:** 60 **Inspection Responsibility:** DISTRICT

Inspection Date: 1/9/2020 ****Calculated Frequency:** **NBI:** NO

** If designated interval is exceeded, then a comment providing justification must be added. Exceeding the interval by more than one month requires Bridge Division approval.

Underwater Inspection Comments

Inspector	Team Leader	Organization
CHUCK DOLEJSI	X	MODOT
KATE MARSHALL		MODOT

****SPECIAL INSPECTION****

Inspection Category: QUALITY ASSURANCE **[92C] Designated Frequency:** 999 **Inspection Responsibility:**

Inspection Date: 4/21/2016 ****Calculated Frequency:** **NBI:** NO

** If designated interval is exceeded, then a comment providing justification must be added. Exceeding the interval by more than one month requires Bridge Division approval.

Special Inspection Comments

Inspector	Team Leader	Organization
TERRY WILSON		MODOT

****OTHER SPECIAL INSPECTIONS****

Category	Frequency	Calculated Frequency**	Date	Inspection Responsibility	NBI
CHANNEL CROSS SECTIONS	120		01/14/2014	DISTRICT	NO

** If designated interval is exceeded, then a comment providing justification must be added. Exceeding the interval by more than one month requires Bridge Division approval.

County : ST. CHARLES **District :** SL **Class :** NONSTATBR **Bridge :** 3885008 1 **Federal ID :** 23080

****GENERAL COMMENTS AND CONDITION RATINGS****

General Comments :

(HOLZBJ, 08/22/2002)--CITY OF ST. PETERS. 3-SPAN.

[Item 58]--Deck Condition Rating: 6-SATISFACTORY CONDITION **Rating Date:** 01/27/2020

Deck Rating Comments

(DOLEJC, 01/27/2014)--L-CRKS OVER INTERMED. BENTS

(DOLEJC, 01/27/2016)--RANDOM POPOUTS AND SMALL PITS IN SURFACE

(DOLEJC, 01/27/2016)--FEW P/C PANEL CRKS W/MINOR LEACHING

(DOLEJC, 01/16/2018)--MANY SIDEWALK POPOUTS

(DOLEJC, 01/16/2018)--N EDGE SPALL AT W ABUTMENT

(DOLEJC, 01/16/2018)--MINOR DRIVING SURFACE WEAR THROUGHOUT

(DOLEJC, 01/16/2018)--MANY FINE CRACKS THROUGHOUT

(DOLEJC, 01/27/2020)--LONGITUDINAL CRACKS AT DECK END, MODERATE AT E END

(DOLEJC, 01/27/2020)--FEW MINOR OVERHANG T-CRKS W/LEACHING AND EFFLOR.

(DOLEJC, 01/27/2020)--MOD P/C DECK PANEL SPALL AT W ABUTMENT W/STRANDS EXPOSED AND MODERATE SATURATION

[Item 59]--Superstructure Condition Rating: 5-FAIR CONDITION **Rating Date:** 01/15/2018

Superstructure Rating Comments

(DOLEJC, 02/01/2014)--MOD RUST STAIN ON EAST ENCASEMENT AND MOD EFF.

(DOLEJC, 01/16/2018)--MOD DELAMS AT GIRD ENCASEMENT, W ENCASEMENT W/HIGH STEEL SPALLS

(DOLEJC, 01/16/2018)--NW WING ENCASEMENT HAS LARGE SPALLS , DELAMINATIONS AND REBAR EXPOSURE

(DOLEJC, 01/27/2020)--MINOR RANDOM VERTICAL CRACKS AT ENCASEMENT

(DOLEJC, 01/27/2020)--MOD TO HEAVY ACTIVE LEACHING, SATURATION THRU SUB/SUPER INTERFACE W/MOD EFFLOR. AND RUST AT ENCASEMENTS, ESPECIALLY AT E ABUTMENT

(DOLEJC, 01/27/2020)--MINOR S EXT GIRD SPALL AT BOTTOM FLANGE IN W SPAN NEAR INTERMEDIATE BENT

(DOLEJC, 01/27/2020)--MINOR BOTTOM FLANGE PATCHES AT W SPAN, 2ND BEAM FROM S

[Item 60]--Substructure Condition Rating: 5-FAIR CONDITION **Rating Date:** 01/15/2018

Compass Direction: WEST to EAST

Substructure Rating Comments

(DOLEJC, 01/27/2016)--MINOR LEACHING, SATURATION THRU SUB/SUPER INTERFACE AND ENCASEMENTS.

(DOLEJC, 03/10/2016)--ISSUES AT NORTH END OF BOTH ABUTMENTS, MAJOR WATER LEACHING SPEEDING DETERIORATION OF DIAPHRAGM AND CAP, MINOR DELAMS AND V-CRKS

(DOLEJC, 01/16/2018)--CRACKS W/EFFLOR AT SE WING

(DOLEJC, 01/16/2018)--NW QUAD WING ENCASEMENT HAS LARGE SPALLS/DELAMS WITH EFFLOR. AND EXPOSED REBAR

(DOLEJC, 01/16/2018)--MINOR SCRAPES ON W BENT CAP AND COLUMNS

(DOLEJC, 01/27/2020)--RANDOM MINOR ABUT DELAMS W SIDE

(DOLEJC, 01/27/2020)--MINOR CAP SPALL AT E CAP BOTTOM S END

(DOLEJC, 01/27/2020)--VERY HEAVY EROSION ALONG NW WING CAUSING HUGE HOLE UNDER WING, ABUTMENT BEAM AND W SLOPE PROTECTION - COVERED WITH LOOSE, SMALL ROCK AT 2020 INSPECTION, BUT VOIDS STILL PRESENT

(DOLEJC, 01/27/2020)--MODERATE CRACKS AT E INTERIOR BENT CAP S END

County : ST. CHARLES **District :** SL **Class :** NONSTATBR **Bridge :** 3885008 1 **Federal ID :** 23080

[Item 61]--Channel Condition Rating: 6-WIDESPREAD MINOR DAMAGE **Rating Date:** 01/27/2014

Rating Comments

(DOLEJC, 01/27/2016)--MINOR DETERIORATION OF GROUTED SLOPE W/LARGE VOIDS AT W SLOPE

(DOLEJC, 01/16/2018)--MOD EROSION AT W BANK.

[Item 62]--Culvert Condition Rating: N-NOT APPLICABLE **Rating Date:** 03/01/2002

Rating Comments

County : ST. CHARLES **District :** SL **Class :** NONSTATBR **Bridge :** 3885008 1 **Federal ID :** 23080

****APPRAISAL RATINGS****

[Item 36A]--Bridge Railing Appraisal: MEETS CURRENT STANDARDS-1 **Rating Date:** 03/01/2002

Rating Comments
(DOLEJC, 02/01/2014)--V-CRKS W/LT EFF
(DOLEJC, 01/16/2018)--R/C SAFETY BARRIER CURB
(DOLEJC, 01/27/2020)--FEW MINOR TOP SPALLS

[Item 36B]--Transition Railing Appraisal: DOESNT MEET CURRNT STND-0 **Rating Date:** 03/28/2006

Rating Comments
(DOLEJC, 01/16/2018)--W-BEAM (ALL)

[Item 36C]--Approach Railing Appraisal: MEETS CURRENT STANDARDS-1 **Rating Date:** 03/28/2006

Rating Comments
(DOLEJC, 01/16/2018)--W-BEAM (ALL)
(DOLEJC, 01/27/2020)--MINOR COLLISION DAMAGE AT SE

[Item 36D]--Rail End Treatment Appraisal: DOESNT MEET CURRNT STND-0 **Rating Date:** 03/28/2006

Rating Comments
(DOLEJC, 01/27/2020)--NE QUAD IS TURNDOWN
(DOLEJC, 01/27/2020)--SE SIDE IS FLARED. CRASHWORTHY ON WEST END

[Item 71]--Waterway Adequacy: DECK ABOVE FLOOD ELEV **Rating Date:** 03/01/2002

Rating Comments

[Item 72]--Approach Roadway Alignment: 8-VERYGOOD **Rating Date:** 03/01/2002

Rating Comments
(DOLEJC, 02/01/2014)--L-CRKS @ W APPR
(DOLEJC, 01/16/2018)--BROKEN ROADWAY CURB AT NE QUAD
(DOLEJC, 01/27/2020)--MINOR SCALING W APPROACH
(DOLEJC, 01/27/2020)--MOD SPALLS AT W APPROACH SLAB FILLED WITH ASPHALT
(DOLEJC, 01/27/2020)--MOD SETTLEMENT AT E APPR - BOTH APPROACH SLABS ASPHALT COVERED (W END ONLY EB SIDE)
(DOLEJC, 01/27/2020)--E END RAVELED AT DECK JOINT, OXIDIZED AND CRACKED

[Item 113]--Scour Assessment: 8-STABLE FOR CALCULATED **Rating Date:** 3/1/2002

Type of Scour Evaluation:

Rating Comments
(DOLEJC, 01/27/2020)--NO SCOUR OBSERVED

County : ST. CHARLES **District :** SL **Class :** NONSTATBR **Bridge :** 3885008 1 **Federal ID :** 23080

Work Comments :

(BURKEC, 01/20/2012)--SEAL APPROACH JOINTS W/ HOT POUR. NW WING CRACKED AND FRACTURED AT ABUTMENT / SIDEWALK INTERFACE.
(DOLEJC, 01/16/2018)--SEAL DECK AND BARRIERS (I.E. SILANE)
(DOLEJC, 01/16/2018)--N SIDEWALK SETTLING - REPAIR @ BOTH ENDS
(DOLEJC, 01/16/2018)--CONC REPAIR AT W END APPR SLAB
(DOLEJC, 01/16/2018)--CONSIDER EPOXY POLYMER DECK OVERLAY FOR PRESERVATION
(DOLEJC, 01/27/2020)--CHIP AND EPOXY SEAL SPALLED P/C PANEL IN W SPAN
(DOLEJC, 01/27/2020)--REPAIR APPROACH SETTLEMENT
(DOLEJC, 01/27/2020)--REPAIR EROSION @ NW QUADRANT WING/SLOPE AND SIDEWALK. LARGE VOIDS UNDER WING AND SLOPE PROTECTION
(DOLEJC, 01/27/2020)--ADDRESS HEAVY ENCASEMENT LEACHING AT E ABUTMENT

HORNER SHIFRIN

THE POWER HOUSE AT UNION STATION ● 401 S. 18th ST., STE. 400 ● SAINT LOUIS, MISSOURI 63103-2296
314-531-4321 ● FAX 844-339-2910 ● www.HornerShifrin.com

August 16, 2019

Mr. Jamey Laughlin
Offsystems Plans Reviewer
MoDOT-Bridge Division

Subject: 20TTAP-04 BEAP St. Charles County 3885008 Mexico Road over Dardenne Creek

Dear Mr. Laughlin,

Horner & Shifrin has completed the BEAP study for this project which included an evaluation of the condition of the existing 3-span bridge, recommendations for repairs and a construction cost estimate.

The existing structure is a (75'-75'-75') precast prestressed concrete I-girder bridge with integral end bents on steel piles. The bridge also crosses a trail and is adjacent to a newer steel truss trail bridge, located just upstream. The approach roadway is asphalt except the NW quadrant is concrete. Original plans show concrete approaches. There is no overlay on the bridge, so does not appear that the asphalt is an overlay.

Most of the bridge is in good condition with exceptions noted below:

1. The northwest approach is missing 8' of curb
2. Both sidewalk approaches have settled, leading to concrete deterioration at the west approach and ground erosion at the east approach.
3. There is heaving asphalt on the west approach along the sidewalk.
4. The joint between the east approach and end bent has failed, leading to water intrusion.
5. There is vegetation encroaching on the fence.
6. The fence has surface rust throughout.
7. Some slab drains are clogged.
8. The drainage systems outlet onto the intermediate bent, one slab drain to drainage system pipe is loose and has vegetation growing.
9. There is erosion under the first slab drain west of the east intermediate bent, north side.

Based on the findings, the bridge could be repaired to extend its life. At this time, recommendations include:

1. Seal the deck, sidewalk and 12" up the face of barrier curbs with epoxy polymer overlay.
2. Cleanout the slab drainage system and extend to ground.
3. Repair approach pavement
4. Replace settled sidewalk, approximately 40' total length.
5. Trim vegetation at least 5' from fence, or to right-of-way line.
6. Replace chainlink fence, re-using posts.
7. Place rip-rap along eroded areas on spill slopes and under slab drains.

The estimated cost of the repairs is $105,000 The construction cost estimate is in 2019 dollars and includes roadway items. It is recommended to add 20% contingency for budgeting. The estimate does not include design or construction inspection.

Attachments with location, photos and cost estimate breakdown follow.

Please contact me at 314-335-8637 or tplohman@hornershifrin.com with any questions.

Sincerely,

Tom Lohman, PE
Assistant Business Unit Leader – Structural Bridge
Attachments

Location of Bridge No. 3885008, Mexico Road over Dardenne Creek, St. Peters, MO

South Elevation	
Northwest approach curb missing 8 ft	

West sidewalk settled 2" at wing tip, leading to stormwater over side of wing causing concrete deterioration	

Concrete deterioration, northwest wing	

Northwest wing deterioration	

West Roadway approach pavement is half concrete half asphalt, concrete in need of 40 sf repairs	

Vegetation encroaching fence	
Deck in typically good condition	

Chainlink fence has surface rust	

Clogged slab drain	

Heaving asphalt along northeast approach	

East sidewalk approach is settling	

	
Erosion under first slab drain west of east intermediate bent	

Erosion, NE quadrant	
East abutment leaking	

South drainage system drain connection is loose, has vegetation, outlet dumping on intermediate bent	

East asphalt approach at end bent is failing, leading to leaking	

HORNER SHIFRIN	Subject:	Bridge Cost Estimate - Mexico Road Bridge Repairs		
	Job No:	1527206	Page:	
	Calc:	TPL	Date:	8/13/2019
	Chk:	MAB	Date:	8/14/2019
	Bkchk:	TPL	Date:	8/14/2019

Scope **Epoxy Polymer Overlay**
Repair approach pavement
Hot pour joint between bridge and approaches
Repair sidewalk
Remove vegetation
Clean & extend drainage system
Erosion damage repair
Replace fence fabric

Item Description	Units	Unit Cost	Estim. Quantity	Total Estim. Cost
Epoxy Polymer Overlay	sq. yd.	$34	1617	$54,970
Repair Approach Pavement / Hot Pour Joint	lump sum	$5,000	1	$5,000
Replace sidewalk	sq. ft.	$25	240	$6,000
Extend and repair drainage system	lump sum	$5,000	1	$5,000
Clean drainage system	lump sum	$2,000	1	$2,000
Rip-rap	lump sum	$2,000	1	$2,000
Replace chainlink fence fabric	lump sum	$5,000	1	$5,000
Mobilization	lump sum	$7,500	1	$7,500
Traffic Control	lump sum	$8,000	1	$8,000
			Subtotal =	$95,470

misc. pay items =	0%	$0
staging =	10%	$9,547
tight site access =	0%	$0
horizontal curve =	0%	$0
earthquake =	0%	$0
early completion =	0%	$0
Total =		$105,016

Preliminary Cost Estimate = $105,000

Missouri Department of Transportation and FHWA

Preventive Maintenance Agreement

February, 2016

I. Introduction

Preventive Maintenance (PM) is defined as "a planned strategy of cost-effective treatments to an existing roadway system and its appurtenances that preserves the system, retards future deterioration, and maintains or improves the functional condition of the system (without significantly increasing the structural capacity)." *Source: AASHTO Standing Committee on Highways, 1997*

In accordance with FHWA memorandum, PM Eligibility (Appendix B), dated October 8, 2004 *"Division offices should proactively work with their State partners to establish a preservation component, which is composed of various preventive maintenance activities and treatments...The final eligibility determination should be the result of collaboration between the division and the State DOT. This determination should be based on sound engineering judgment and economic evaluation, allowing flexibility in determining cost-effective strategies for extending the service life of existing pavements, bridges, and essential highway appurtenances on Federal-aid highways."*

The purpose of this document is to identify the activities that FHWA Missouri Division and MoDOT agree to be classified as PM, thus eligible for federal-aid. This document outlines MoDOT's PM plan which uses a systematic process to identify PM activities. The plan will not modify FHWA's program oversight and project approval responsibilities for activities such as those required under the Clean Air Act, the National Environmental Policy Act of 1969, and other related environmental laws and statutes. It will be MoDOT's responsibility to conduct any necessary environmental reviews to ensure all environmental requirements are met and documented prior to any ground disturbing activities taking place. In addition, as reflected in 23 CFR 625 deviations from design standards for the defined PM activities will not require design exceptions. Standards for the design and construction of all projects on the NHS, including the Interstate system, are applicable to any proposed improvement regardless of the funding source (Federal, State, local or private); therefore deviations from standards for activities classified to exceed PM must have approved design exceptions.

Per ADA Alterations memo (Appendix C), projects deemed to be alterations must include curb ramps within the scope of the project. It is important to note that many of the activities defined within this document as PM will fall into the memo's definition of "alteration" thus requiring curb ramps.

II. Preventive Maintenance Plan

MoDOT's plan is intended to be used as a guide and process tool for planning and executing PM, by both contract and in-house (force account) methods. Use of force account methods for performing work must receive FHWA approval prior to use or implementation. The plan will also provide assurance to FHWA that we are conducting this effort in accordance with the following Federal Guidance:

Provide a systematic process for planning and executing PM.

Define PM activities, which extend the service life of the bridge or pavement.

Demonstrate each activity is cost effective, and for in-house (or force account) work, to demonstrate the activity is in the public's best interest and there is a significant advantage over contracted work.

Identify any other specific activities which by their nature are not strictly PM, however, FHWA is agreeable to Federal cost participation (example: pavement marking, overhead signs, and guardrail and guard cable repair). These activities are categorized as Other Roadway activities.

The steps in this process follow the Systematic Preventive Maintenance (SPM) guidance from FHWA, as follows:

1. Goals and Objectives: Clearly defined goals and objectives for the SPM program
2. Inventory and Condition Assessment: Availability of tools and resources to conduct bridge and roadway inspections and evaluation.
3. Needs Assessment: Documented needs assessment process that outlines how PM needs are identified, prioritized, and programmed.
4. Cost-Effective PM Activities: Ability to demonstrate the PM activities are a cost-effective means of extending the life of a bridge or roadway.
5. Accomplishing the Work: Availability of tools and resources to accomplish the PM work.
6. Reporting and Evaluation: Ability to track, evaluate, and report on the planned and accomplished PM work on an annual or as-needed basis.

This plan outlines the systematic process for integrating PM into multiple aspects of MoDOT's organization. The goals for extending the life and function of our road and bridge assets provide direction and vision. The process starts with an inventory of assets, which is maintained primarily on our Transportation Management System (TMS) database. Condition data is collected on a periodic frequency, and stored in the TMS or other databases for use in identifying needs. PM activities are then identified, through collaboration between both District and Headquarters staff, which are both cost effective and appropriate for the condition they are addressing. Specific activities are scoped and scheduled, and may be accomplished through a combination of both contract and in-house efforts. Budgeting for this overall effort is accomplished during the annual budget planning and approval cycle, although specific tasks and priorities may change during the course of each year due to varying priorities and budget constraints or opportunities. The cycle is complete, once results are tracked and reported, and the asset condition is then updated to start this cycle once more. This process is systematic, as this represents a planned strategy of cost-effective treatments to existing assets, with the overall goal of extending the functional life of these assets. This process is also iterative, and different treatments or actions are evaluated on a recurring cycle, such that they may be altered and improved over time to increase effectiveness. This is graphically illustrated, as follows:

Preventive Maintenance Process

III. Goals and Objectives

Bridge goals and objectives - Extend the life of decks and other bridge elements through timely PM activities, including mitigation/removal of corrosion sources and sealing critical or exposed surfaces to

prevent further corrosion. Mitigate corrosion through removal of de-icing or corrosive material as well as debris which may hold water/moisture and contribute to oxidation or corrosion. This includes localized repair and sealing of exposed surfaces including decks and critical superstructure and substructure elements.

Pavement goals and objectives – Extend the life of pavements by appropriately timed application of overlays or sealants to reduce weathering/oxidation/corrosion of pavement structure, correct pavement surface geometry, friction restoration and corrections, smoothness correction, promote drainage, and prevent/reduce water intrusion into pavement sections.

Other Roadway Goals and Objectives – Extend the service life of various safety features through application of timely, cyclic and performance-based measures to ensure such items as guardrail and guard cable are functional, structural and shoulder-mounted signage is stable and visible at all hours, and pavement markings are maintained in visible conditions at all hours throughout the year.

IV. Inventory and Condition Assessment

Bridge: MoDOT utilizes National Bridge Inventory (NBI) condition ratings and performs PM, including cyclic maintenance on select groups of bridges. MoDOT maintains a number of staff who are trained and qualified to perform these inspections, including a District Bridge Engineer in each of our seven Districts. Inspection information is stored and managed in our Bridge Division, and data is available for use in planning, programming, and design within the Transportation Management System (TMS). District Bridge Engineers work with planners to identify both project needs (STIP) and work plans for PM on an annual basis, utilizing the condition information from TMS, NBI inspection data, as well as good engineering judgment, while balancing the needs and priorities within our financial constraints.

Pavement: MoDOT obtains various measurements of road surface condition through use of the Automatic Road Analyzer (ARAN) van, including such items as cracking, rut depth and IRI (International Roughness Index). This data is evaluated using a Pavement Surface and Evaluation Rating (PASER) system to produce condition ratings for road segments. This system, managed through MoDOT's Transportation Management System (TMS), provides current condition information, as well as theoretical future conditions, packaged within the Pavement Management Tool in the TMS system. The District Pavement Specialists use this condition tool as a guide when planning STIP projects and annual maintenance work plans, where professional judgment and input from Maintenance Superintendents augment the Pavement Management Tool for decision-making. Typically Major routes have activities planned and programmed in the STIP, while minor routes have activities planned such as contract overlays or other maintenance treatments which may be achieved through contracts or by in-house forces. Additional guidance on pavement maintenance is available in the Engineering Policy Guide, Section 144.5.

Other Roadway: MoDOT uses both performance-based indicators and cyclic scheduling to plan and prioritize such items as overhead signage and pavement marking. Visual night inspections are conducted every other year and random retro-reflectivity readings are taken to add some objective measure of condition. These random retro-reflectivity readings are presented in the MoDOT Tracker assessment. Pavement marking (types and dimension), rumble stripes, centerline stripe, etc., are inventoried on the

Striping Application within TMS. Following are the EPG guidelines for acceptable retro-reflectivity readings for various conditions (units in mill candela per meter squared per lux or mcd/m^2/lux).

Pavement Marking Acceptance Table		
	Yellow	**White**
New Markings	225	300
Existing Markings	125	150
Existing Markings Expected to Last Another Winter	175	200

Structural condition of overhead signs and high-mast lighting are in the development stage at this time, however this information will be used for both condition tracking and needs assessment as this effort is implemented. One set of condition inspection data is available for overhead signs and high-mast lighting (from 2006-2007). Visibility and reflectivity of all signs is evaluated on a biennial basis (approximately half of the inventory each year) through night sign log reviews. Traffic Division maintains a Sign Management System, to track our inventory and sign condition, which are the key to planning sign work in the "Needs Assessment" step. Other safety features, such as guardrail and guard cable are primarily managed through the use of on-call contracts for timely repair of these safety features in order to maintain their function.

V. Needs Assessment

Needs and priorities are developed on an ongoing basis in coordination with the Regional Planning Commissions (RPC's) and Metropolitan Planning Organizations (MPO's). All contracts involving federal cost participation are presented in the STIP, while in-house (or force account) efforts are summarized in Section 6 of the STIP. Ongoing coordination with MoDOT Environmental also takes place to ensure all environmental requirements are completed and documented.

Bridge: Bridge inspectors identify and record needs during each bridge inspection. District Bridge Engineers work with NBI inspection data and findings to communicate priorities for rehabilitation and replacement structures for STIP programming. District Bridge Engineers also prepare PM work plans or work item lists, on an annual basis, which are used to schedule contract and in-house efforts. These lists are subject to change with changing priorities and funding opportunities. Central office staff from Bridge and Maintenance Divisions provides technical assistance and guidelines for timing of PM as well as management of condition and NBI rating data. . MoDOT Environmental Section will need to be coordinated with on these activities to ensure they are scheduled appropriately so that any necessary consultation with the State Historic Preservation Office occurs prior to the activity taking place.

Pavement: Central office staff from Maintenance and Planning Divisions provide annual data to districts noting IRI and condition (as presented in TMS), and the District Maintenance Staff prepare annual work plans with input of the District Pavement Specialist and Maintenance Superintendents. This pavement data is often supplemented with field observations, as-built information, and core data. Major routes are primarily addressed in STIP projects, however some major and the majority of minor routes are addressed by the condition and traffic volume to prioritize the PM treatments and the associated cycle of these treatments, which may be accomplished by either in-house forces or contract.

Other Roadway features: MoDOT evaluates a variety of other roadway features to create work plans for maintenance. Major items which are evaluated are signs (night reflectivity is checked on an every other year basis and is scored as pass/fail based on night time visibility). Random sign mounting is checked for crashworthiness. Pavement marking is evaluated on a similar night time visual review with pass/fail results. Pavement marking is currently scheduled as a cyclic maintenance task, with major routes re-striped every year, and minor routes re-striped every other year. Random retro-reflectivity measurements are conducted for an overall tracker measure, and to provide a qualitative measure of the overall condition of pavement marking. Note: wet retro-reflectivity is currently evaluated subjectively through visual observations, although quantitative test methods are being evaluated on a pilot scale for limited use in product evaluation. Signs and pavement marking are evaluated by Traffic and Maintenance staff. Structural signs, high mast lighting, retaining walls, and sound walls are also candidates for evaluation of structural condition, and this data will be integrated into this plan, when condition data and reporting are implemented. Due to resource and funding constraints, there is no current schedule forecast for this effort. Guardrail and guard cable are monitored for damage, and on-call repair contracts are in place to enable rapid response to repair these safety features as necessary.

VI. Cost Effective Preventive Maintenance Activities

Overall descriptions and strategies for all activities are included in MoDOT's Engineering Policy Guide (EPG), available at the following link: http://epg.modot.org/index.php?title=Main_Page

Specific sections of the EPG are also provided for reference within the Appendices.

Bridge: Strategies for PM activities are listed in Appendix A-1, Bridge PM Strategies. These strategies include guidance on the recommended treatment options, based on the condition and age of an asset, in order to emphasize the right treatment at the right time.

Pavement: Strategies for PM activities are listed in Appendix A-2, Pavement PM Strategies. These strategies include guidance on the recommended treatment options, based on the condition and age of an asset, in order to emphasize the right treatment at the right time. These strategies are in accordance with FHWA guidance depicted in Appendices B and F.

Other Roadway Features: Strategies for PM activities are listed in Appendix A-3, Other Roadway PM Strategies. These strategies include guidance on the recommended treatment options, based on the condition and age of an asset, in order to emphasize the right treatment at the right time. This category also includes work which is required due to other causes, such as damage due to accidents, where work activity takes place to bring a safety feature back to functional condition quickly to maintain overall

highway safety. Note: Federal participation is not allowed on work costs which are recovered through insurance or third parties.

General: PM activities will be executed by combination of in-house resources (force account) and contract efforts. The majority of contract efforts will be awarded based on competitive bid, with limited number including Design Build or other contract methods. Competitively bid contract formats include Job-Order Contracts, General Services Contracts/Proposals, maintenance contracts, and Performance-based maintenance contracts. In-house efforts are typically smaller in scale and geographically spread, which reduce the efficiency for contract efforts, however cost tracking is performed to demonstrate this work is advantageous to the State through lower cost and quicker response due to length of time to bid a project. Specific examples of in-house results/costs compared to competitively bid contract pricing will be submitted separately, for each major category of work. See Appendix D for FHWA memorandum, FHWA Policy on Agency Force Account Use, dated March 12, 2012 for force account eligibility.

VII. Accomplishing the Work

Bridge: Each District is staffed with a District Bridge Engineer, who manages condition rating and work plans/STIP planning efforts related to project work and PM. In-house efforts are accomplished with crews composed of maintenance staff throughout the District, with some Districts maintaining a limited number of dedicated staff and equipment. Supplies are provided through general services contracts, and are delivered as needed. Each district also has access to contractor resources, currently through job-order contracts, maintenance contracts, general services contracts, and STIP projects. Additional work is anticipated through the use of performance-based maintenance contracts, as this contract model is developed.

Pavement: Each District is staffed with a District Pavement Specialist, who manages condition assessment of roadways with input from Maintenance Superintendents, Pavement Management System data, and other field observation. In-house efforts are accomplished with crews composed of maintenance staff throughout each District. Equipment is maintained for limited number of tasks (surface patching and seal coats) but may also be leased for short-term applications. Supplies are available through general services contracts. Each district also has access to contractor resources, currently through job-order contracts, maintenance contracts, and STIP projects. Additional work is anticipated through the use of performance-based maintenance contracts, as these are developed.

Other Roadway Features: District Maintenance and Traffic staff work with maintenance crews from within their Districts to perform pavement marking, sign replacement, and a limited amount of structural sign repair (note: St. Louis District is the only District with significant crew and equipment for structural sign work by in-house crews while Kansas City District has developed maintenance contracts for shoulder-mounted sign maintenance, but not overhead sign maintenance). Guardrail and guard cable are addressed through the use of job order contracts. Equipment is maintained in each District for pavement marking and sign replacement and repair, while supplies are all provided through general services contract.

Note: Buy America requirements apply to all iron and steel materials permanently incorporated into federal-aid work. General Service's contract guidelines for Federal Reimbursement items are provided in

Appendix G. Quality Assurance/Quality Control guidelines and documentation are provided in Appendix H.

VIII. Reporting and Evaluation

Bridge: The District Bridge Engineers report on the progress of PM work plans on an annual basis and the District and Bridge Division report on STIP project and overall system condition progress (Tracker Item 2c, Condition of State Bridges, and Tracker Item 2d, Condition of Major Bridges. Note: Additional MAP-21 guidance is expected in the near future, and will be reviewed for incorporation when available). This reporting will include a summary of results achieved and effort expended. Contract efforts will note contract costs, and quantity of road/bridge/other roadway condition improved, while in-house force work will be tracked through the SAM-II system, including the use of performance actual result tracking, where maintenance crews report the quantity of work completed, with their crew reports (listing labor, material, and equipment costs). The in-house system provides summary data for crew/equipment/materials used and associated results achieved. Examples of in-house reporting are provided in specific cost comparisons, submitted individually to FHWA for approval to demonstrate cost effectiveness of select in-house (or force account) efforts as compared to similar contract work.

Pavement: The District Pavement Specialists report on the progress and results of work plans and the District reports on STIP project progress. This tracking is reported in similar fashion as noted for the Bridge category noted above. The annual updates to the Pavement Management Tool provide quality assurance of the results reporting, as this information is in turn utilized to plan future work.

Other Roadway Features: District Maintenance and Traffic staff tracks sign and striping overall condition, including retro-reflectivity. This data is compiled in TMS, with condition reporting in Tracker. Any additional condition data which may be obtained in the future will be coordinated with FHWA, as this condition data collection is developed and implemented. Work activities are reported in similar fashion as noted above.

Kathryn P. Harvey — 2-25-16

MoDOT Assistant Chief Engineer — **Date**

Kirk L. Hall — 3-14-16

FHWA Missouri Division Administrator — **Date**

Appendix A-1

Bridge PM Activities

Bridge PM Activities

Bridge PM activities and descriptions are noted in the Engineering Policy Guide (EPG), Section 771. The following is a summary of recommended activities; including reference information on condition based treatments and recommended frequency of actions.

Bridge Washing: Cyclic activity, with nearly all bridges targeted for flushing in the early spring, in order to remove salts and debris, and again in the fall to remove any accumulated debris. Flushing is also performed in advance of sealing or crack filling operations. Bridge washing also includes a 1-2 year interval for cleaning substructure elements, including cleaning and lubrication of bearings as applicable. Bridge drains are typically cleaned during deck flushing.

Sealing: Cyclic and condition-based activity. Primary candidates for deck sealing are condition 7 or higher, and the cycle is determined based on the type of sealer applied. Specific examples include: Silane (5-7 year interval), acrylic sealers (star macro deck/annual), asphalt chip seal (5-10 year interval), 3-layer epoxy (12 - 25 years, depending on age of structure at time of application), methacrylate (3-4 year interval), and high molecular weight methacrylate (7 – 15 year interval, under evaluation). Other materials are under evaluation, and may be added to this list as approved. Additionally, some lower condition decks may benefit from deck sealing, and this work may be performed as recommended by District Bridge Engineers.

Crack Sealing: This activity is primarily applied to condition 6 or lower decks which exhibit cracking, and is applied on a 2-3 year interval. Chip seals and asphalt emulsion crack sealer (in-deck) are applied on bridge decks (typically condition 4 or lower). Typically this is applied to bridge decks where cracking is evident such that sealing alone is not effective. A variety of products are available, with varying treatment intervals (reference approved materials list). Product list/frequency info includes: asphalt emulsion sealers (3-5 year interval), low viscosity epoxy in a single layer application (5-7 year interval anticipated depending on AADT, currently under review), high molecular weight methyl methacrylate (7-15 year interval, currently under review), polymer emulsions (enduraseal, 3-5 year interval, under evaluation), polyuria (test sites applied this past year are under evaluation). Crack sealing is dependent on age, location (amount of salt application), AADT, and thermal movement/deflection. Effective life is still undergoing evaluation for a variety of products, and this listing will be updated as data is obtained for various products.

Joint Repairs/Replacement: This is currently an emphasis area, to replace joints identified on work plans during NBI inspections. Various joint types may require a mixture of both in-house forces (when approved by FHWA) and contracts to accomplish. Some example joint materials in use include: pre-compressed joint material system (polytite), preformed silicone or polyuria joint strips (silicoflex - good for a relatively wide range of seasonal conditions, emseal -limited use/under evaluation), Watson-Bowman – Acme (BASF, products are Wabo, Wabo-x, strip seal…, but may also include finger plate, flat plate, or other more complex joint systems). Note: Field measurement and evaluation of expansion movement should be checked prior to joint repair selection.

Steel Member overcoat: Typically includes calcium sulfonate overcoat application or cleaning and repainting of structural members. If the rust code is 7 or better and pull-off tests (ASTM D3359) are acceptable for overcoat, then overcoat application is feasible.

Strategic Zone Painting: Applied in areas where water and salt are likely to infiltrate, typically under expansion devices, at abutments or joint locations, and in areas subject to salt/water spray from traffic. This activity may include overcoat or repainting by either in-house forces (when approved by FHWA) or contract.

Wearing Surface: Includes wearing surface repair or replacement performed by in-house forces (when approved by FHWA) or contract.

Bridge Approach Slab Lifting: Settlement of approach slabs is typically corrected when differential at bridge end is equal to or greater than ½ inch vertical difference. Example methods to correct approach slab settlement include mud-jacking or use of expansive urethane Scour/Channel Mitigation/Repair: Scour mitigation is provided on an as-needed basis, and is typically identified during routine maintenance staff observations or during bridge inspections. Drift removal activities are performed with equipment to remove drift from the site or to the downstream area of the structure. Brush control and removal is periodically conducted to maintain the channel opening. Active scour or bank erosion areas are repaired on an as-needed basis with such measures as formed pier repair, gabion installation, or rock blanket.

Bearing repair/replacement: This work also includes cleaning, repainting, and lubrication of bearings as required by condition.

Deck Repairs: Includes half-sole and full depth repairs

Substructure Repairs: Includes formed and unformed concrete repairs, and limited use of shot-crete applications. Also includes cleaning, re-coating, and member repair/replacement on substructure elements.

Superstructure Repairs/Restoration of Section Loss: Includes repair, clean/paint, coating, and restoration of section loss in steel members. Note: heat-straightening is usually performed in response to collision damage, which would not be considered PM when costs are collected from third-party liability insurance.

Graffiti removal and prevention (see Appendix B).

Replacement or upgrade of bridge railings, transition railings, and rail end treatments.

Appendix A-2

Pavement PM Activities

Pavement PM Activities

Pavement PM activities are noted in EPG Section 413, Surface Treatments and PM and EPG Section 507 – Portland Cement Concrete Pavement Maintenance. Overall pavement maintenance direction is provided in EPG 144.5 Pavement Maintenance, which also includes ranges of condition-based treatment and life expectancy of each treatment. Following is a list of recommended activities, with associated condition basis and frequency.

Full lane width overlays: Condition basis where these treatments are applicable is provided in EPG 144.5, and the projected life of this treatment ranges from 8 – 15 years. This work is accomplished through paving contract (hot or cold mix), pavement maintenance contracts, and in-house forces (when approved by FHWA). Overlays typically include hot-mix asphalt on regionally significant minor routes, major routes and interstates, while minor routes and low volume roads will be evaluated for either hot or cold-mix for the most cost-effective application.

Pavement Repair: A planned strategy to extend the useful life of the system where patches are applied to address significant rutting or surface raveling on existing asphalt surfaced roadways. This is a non-isolated approach that is applied along a roadway system. Patch material may be hot or cold mix asphalt. Concrete patching is performed when spalling, severe cracking, or joint movement is evident in existing Portland cement concrete pavements.

Seal Coats: This is performed on a condition basis to good condition pavements with no significant rutting. Additional details are provided in EPG 144.5.6.1 Pavement Direction. Example seal coats include: Fog Seal/Scrub Seal (1-2 year life), Chip seal (many variations with 3-7 year life), micro surfacing (6-8 year life), slurry seal (4-6 year life), and rejuvenators (3-5 year life – Note: we have limited experience with this activity on entire route segments),

Other Surface Treatments: UBAWS (Ultrathin bonded asphalt wearing surface) is utilized where drainage and spray are a concern (with 5-9 year interval). Note: Do not mill pavement edge for placement of UBAWS, as deterioration may accelerate at un-drained pavement edge. Crack Sealing is used on both concrete and asphalt pavements where joints are open, reflective cracks or distress cracking are present - but not excessive. Crack sealing is applied to prevent incompressible material from entering cracks and prevent water intrusion, in order to extend pavement life until another treatment is applied (2-4 year expected life).

Appendix A-3

Other Roadway Features

Other Roadway Features

Guardrail repair: Performed as needed on damage sections, primarily through on-call Job Order contracts. Note: Systematic guardrail maintenance initiatives may also be advanced, following regional or corridor condition surveys to inspect and identify maintenance items required to ensure proper safety performance of guardrail systems, including end terminals. These systematic maintenance initiatives may be accomplished through Job Order contracts, regional or corridor contracts, or by in-house maintenance forces (force account). Force account efforts would also require a cost analysis be provided to demonstrate the cost effectiveness of force account work compared to contract efforts. Such systematic maintenance initiatives may qualify for reimbursement through Highway Safety Improvement Program (HSIP) funds provided they meet HSIP funding HSIP eligibility requirements

Guard Cable Repair: Performed as needed on damaged sections, primarily through on-call Job Order contracts. Note: Both guardrail and guard cable repair contracts are typically implemented on a regional or corridor-specific area (see Appendix E citing federal-aid eligibility).

Structural Sign Repair/Replacement: Includes both structural repairs as well as retro-reflectivity or visibility improvements.

Pavement Marking: Includes placement of pavement markings, as required to maintain minimum retro-reflectivity standards. This work includes consideration of day/night, wet/dry, recessed pavement marking, and/or snow-plow able marking applications.

Drainage Maintenance: Includes cleaning, reshaping, lining, systematic replacement and overall rehabilitation of pavement drainage features, including ditches, pipes, and conduits (not otherwise defined as a bridge structure).

Note: FHWA eligibility for many of these categories is predicated on regional or corridor efforts. Also, work which is reimbursed from third party sources (such as damage claims) is not eligible for Federal cost participation.

Appendix B

FHWA Memo – Preventive Maintenance Eligibility

Fact Sheets
Publications
Memos
Links

U.S. Department of Transportation
Federal Highway Administration

MEMORANDUM

Subject: **ACTION**: Preventive Maintenance Eligibility

Date: October 8, 2004

From: /s/ Original signed by:
King W. Gee
Associate Administrator for Infrastructure

Refer To: HIAM-20

To: Directors of Field Services
Division Administrators
Federal Lands Highway Division Engineers

Timely preventive maintenance and preservation activities are necessary to ensure proper performance of the transportation infrastructure. Experience has shown that when properly applied, preventive maintenance is a cost-effective way of extending the service life of highway facilities and therefore is eligible for Federal-aid funding. By using lower-cost system preservation methods, States can improve system conditions, minimize road construction impacts on the traveling public, and better manage their resources needed for long-term improvements such as reconstruction or expansion. Preventive maintenance offers State DOT's a way of increasing the return on their infrastructure investment.

During the 1990's, Congress incrementally broadened, through legislation, the applicability of Federal-aid funding to preventive maintenance activities. Congress' acknowledgement of preventive maintenance activities as an eligible activity on Federal-aid highways is a logical step that reinforces the importance of implementing a continuing preventive maintenance program. Each of these actions was conveyed to the field through a series of memoranda. This policy memorandum supersedes the related memoranda listed in the attachment.

The FHWA division offices have an important role in promoting system preservation and are encouraged to work closely with their State DOT counterparts to establish a program that identifies eligible preventive maintenance measures for all roadway assets on Federal-aid highways. The AASHTO defined preventive maintenance "as the planned strategy of cost effective treatments to an existing roadway system and its appurtenances that preserves the system, retards future deterioration, and maintains or improves the functional condition of the system without increasing structural capacity." Projects that address deficiencies in the pavement structure or increase the capacity of the facility are not considered preventive

More Information

- FHWA Public Private Partnerships
- TIFIA

Contact

Bryan Cawley
Office of Asset Management, Pavements, and Construction
202-366-1333
E-mail Bryan

maintenance and should be designed using appropriate 3R standards. Functionally, Federal-aid eligible preventive maintenance activities are those that address aging, oxidation, surface deterioration, and normal wear and tear from day-to-day performance and environmental conditions. Preventive maintenance activities extend the service life of the roadway asset or facility in a cost-effective manner.

Division offices should proactively work with their State partners to establish a preservation component, which is composed of various preventive maintenance activities and treatments. These include roadway activities such as joint repair, seal coats, pavement patching, thin overlays, shoulder repair, restoration of drainage systems, and bridge activities such as crack sealing, joint repair, seismic retrofit, scour countermeasures, and painting. Many other activities that heretofore have been considered routine maintenance may be considered Federal-aid eligible on an area-wide or system-wide basis as preventive maintenance (i.e., extending the service life). This might include such work items as regionwide projects for periodic sign face cleaning, cleaning of drainage facilities, corrosion protection, spray-applied sealant for bridge parapets and piers, etc. These typical preventive maintenance work items are not intended to be all-inclusive but are rather a limited list of examples.

The final eligibility determination should be the result of collaboration between the division and the State DOT. This determination should be based on sound engineering judgment and economic evaluation, allowing flexibility in determining cost-effective strategies for extending the service life of existing pavements, bridges, and essential highway appurtenances on Federal-aid highways.

All preventive maintenance projects should consider appropriate ways to maintain or enhance the current level of safety and accessibility. Isolated or obvious deficiencies should always be addressed. Safety enhancements such as the installation or upgrading of guardrail and end treatments, installation or replacement of traffic signs and pavement markings, removal or shielding of roadside obstacles, mitigation of edge drop offs, the addition of paved or stabilization of unpaved shoulders, or installation of milled rumble strips should be encouraged and included in projects where they are determined to be a cost effective way to improve safety. To maintain preservation program flexibility, and in accordance with 23 U.S.C. 109(q), safety enhancements can be deferred and included within an operative safety management system or included in a future project in the STIP. In no way shall preventive maintenance type projects adversely impact the safety of the traveled way or its users.

As with any Federal-aid project, adequate warning devices for highway-rail grade crossings within the project limits or near the terminus shall be installed and functioning properly per 23 CFR 646 before opening the project to unrestricted use by traffic. For projects on the NHS, all traffic barriers shall comply with the FHWA September 29, 1994, memorandum entitled Traffic Barrier Safety Policy and Guidance, signed by E. Dean Carlson. This work can be accomplished by force account or through other existing contracts prior to final acceptance.

The FHWA supports the increased flexibility for using Federal-aid funding for cost-effective preventive maintenance. The Maintenance Quality Action Team (MQAT) is developing technical guidance on preventive maintenance activities and transportation system preservation as a whole; that technical guidance is under development and will be issued in the near future. For further information please contact Christopher Newman of the Office of Asset

Management, at (202) 366-2023 or Christopher.newman@fhwa.dot.gov, or visit the Transportation System Preservation website at http://www.fhwa.dot.gov/preservation/.

Attachment

Attachment: Memoranda Superseded by Preventive Maintenance Memorandum

- 01/27/04 Stewardship of Preservation and Maintenance
- 01/11/02 HBRRP Funds For Preventive Maintenance (23 U.S.C. 116(d))
- 10/30/98 Implementation of TEA-21 Interstate Maintenance Guidelines
- 08/19/98 Phase Construction for Safety Considerations
- 06/18/97 Transportation System Preservation
- 03/21/96 Preventive Maintenance Revision to 23 U.S.C. 116
- 10/12/93 Safety and Geometric Considerations for Interstate Maintenance Program Projects
- 06/14/93 Interstate Maintenance Program
- 07/27/92 Preventive Maintenance
- 05/21/92 1991 Intermodal Surface Transportation Efficiency Act (ISTEA) Implementation Interstate Maintenance Program

Preventive Maintenance Questions and Answers

Updated: 04/07/2011

Appendix C

FHWA Memo – FHWA Policy on Force Account Use

U.S. Department of Transportation
Federal Highway Administration
1200 New Jersey Avenue, SE
Washington, DC 20590
202-366-4000

Order

Subject

FHWA Policy on Agency Force Account Use

Classification Code	Date	Office of Primary Interest
5060.1	March 12, 2012	HIPA-30

Par.

1. **What is the purpose of this directive?** This directive clarifies the Federal Highway Administration (FHWA) policy for the approval of the use of agency force account procedures on Federal-aid projects. This directive clarifies when agency force account is permitted under law and regulation. The directive addresses the use of agency force account procedures which

include the direct performance of work by any direct recipient (typically the State department of transportation (DOT)) or subrecipient of Federal-aid funding under Title 23 of the Code of Federal Regulations (CFR). It does not address the use of contract force account procedures for work performed by construction contractors as referenced in 23 CFR 635.120(d).

2. **Is this a new directive?** Yes. This is a new directive. Division Administrators are to refer to this directive for all future requests to use agency force account.

3. **What authorities govern this directive?** The FHWA's statutes for Federal-aid construction projects require Federal-aid highway projects to be performed by contracts awarded by competitive bidding. Agency force account can be used only when a State DOT demonstrates to the satisfaction of the Secretary of Transportation that it is more cost effective than competitive bidding or an emergency exists. The following authorities govern this directive:

   a. Section 112 (a) of Title 23, United States Code (U.S.C.), states that "In all cases where the construction is to be performed by the State transportation department or under its supervision, a request for submission of bids shall be made by advertisement unless some other method is approved by the Secretary. The Secretary shall require such plans and specifications and such methods of bidding as shall be effective in securing competition."

   b. 23 U.S.C. 112(b) states ". . . construction of each project . . . shall be performed by contract awarded by competitive bidding, unless the State transportation department demonstrates, to the satisfaction of the Secretary, that some other method is more cost effective or that an emergency exists. Contracts for the construction of each project shall be awarded only on the basis of the lowest responsive bid submitted by a bidder meeting established criteria of responsibility."

   c. 23 CFR 635.204(a) states that competitive bidding must be used unless ". . . the State transportation department demonstrates, to the satisfaction of the Secretary, that some other method is more cost effective or that an emergency exists."

   d. 23 CFR 635.204(c) of states "Except as provided in paragraph (b) of this section, when a State transportation department desires that highway construction work financed with the aid of Federal funds, other than the kinds of work designated under 635.205(b), be undertaken by force account, it shall submit a request to the Division Administrator identifying and describing the project and the kind of work to be performed, the estimated costs, the estimated Federal funds to be provided, and the reason or reasons that force account for such project is considered cost effective."

   e. 23 CFR 635.205(a) states "It may be found cost effective for a State transportation department or county to undertake a federally financed highway construction project by force account when a situation exists in which the rights or responsibilities of the community at large are so affected as to require some special course of action, including situations where there is a lack of bids or the bids received are unreasonable."

   f. 23 CFR 635.203 defines the terms "some other method, force account, county, cost effective and emergency" as follows:

      (1) "Except as provided for as emergency repair work in 668.105(i) and in §635.204 (b), the term *some other method* of construction as used in 23 U.S.C. 112(b) shall mean the *force account* method of construction as defined herein. In the unlikely event that circumstances are considered to justify a negotiated contract or another

unusual method of construction, the policies and procedures prescribed herein for force account work will apply."

(2) "The term force account shall mean the direct performance of highway construction work by a State transportation department, a county, a railroad, or a public utility company by use of labor, equipment, materials, and supplies furnished by them and used under their direct control."

(3) "The term county shall mean any county, township, municipality or other political subdivision that may be empowered to cooperate with the State transportation department in highway matters."

(4) "The term cost effective shall mean the efficient use of labor, equipment, materials and supplies to assure the lowest overall cost."

(5) "For the purpose of this part, an emergency shall be deemed to exist when emergency repair work as provided for in §668.105(i) is necessary or when a major element or segment of the highway system has failed and the situation is such that competitive bidding is not possible or is impractical because immediate action is necessary to:

(a) Minimize the extent of the damage,

(b) Protect remaining facilities, or

(c) Restore essential travel."

4. **What is the scope of this directive?**

a. This directive applies to all Federal-aid highway construction projects (projects meeting the definition of "construction" in 23 U.S.C. 101 and physically located within the right-of-way of a public highway) that are proposed to be undertaken by the agency force account method of construction.

b. This directive does not apply to the contract force account method of construction. Also, this directive does not apply to Federal-aid construction projects that are not located within a public highway right-of-way or projects that, by definition, are not considered to be highway construction projects. A State DOT may use State-approved procurement procedures, or a local public agency (LPA) may use State-approved local procurement procedures for these types of projects (see Procurement of Federal-aid Construction Projects memorandum, issued June 26, 2008). Some examples of projects that are not considered to be highway construction are as follows:

(1) Transportation Enhancement projects that are physically located outside the right-of-way of a public highway (restoration of historic railroad stations, shared use paths, recreational trails, landscaping and scenic beautification, railroad mainline improvements, rail yard improvements, etc.).

(2) Operational improvements or service-related projects that take place within the right-of-way of a public highway, but the scope of the contract does not meet the definition of "construction" in 23 U.S.C. 101 (e.g., operational improvement projects such as service patrols, route diversion and evacuation routing, 911/511

telephone systems, computer-aided dispatch systems, highway advisory or other radio systems for communicating with vehicles, etc.).

5. **What definitions are used in this directive?**

   a. **Force Account.** For purposes of this directive, the term "force account" shall have the same meaning as defined in 23 CFR 635.203(c). For clarity, the term "agency force account" refers to the direct performance of work by any direct recipient (typically the State DOT) or subrecipient of Federal-aid highway funding. The term "contract force account" refers to the method of paying a contractor based on the cost of labor, equipment, and materials furnished, with consideration for overhead and profit.

   b. **Some Other Method.** For purposes of this directive, the term "some other method" shall have the same meaning as defined in 23 CFR 635.203(b).

   c. **Cost Effective.** For purposes of this directive, the term "cost effective" shall have the same meaning as defined in 23 CFR 635.203(e) and clarified in this directive.

   d. **Emergency.** For the purpose of this part, the term "emergency" shall have the same meaning as defined in 23 CFR 635.203(f).

6. **What information must FHWA Division Administrators ensure they have from the agency to prove that force account is more cost effective than contracting by competitive bidding?** As defined in 23 CFR 635.203(e), the term cost effective means " . . . the efficient use of labor, equipment, materials and supplies to assure the lowest overall cost." Under 23 CFR 635.204(c), States must submit a request to the Division Administrator identifying and describing the project and the kind of work to be performed, the estimated costs, the estimated Federal funds to be provided, and the reasons that force account is more cost effective than competitive bidding. In evaluating the project description, the kind of work to be performed, estimated costs, and reasons agency force account is more cost effective, Division Administrators must ensure that they have the following information from the agency:

   a. **Demonstrated ability of the agency to perform the work**. Division Administrators must be able to determine that the agency has the experience, resources, and demonstrated ability to complete the work with the same level of quality as that expected on a competitively let construction contract.

      (1) **Availability of equipment.**

         (a) The agency must own (or currently lease) most of the equipment that is needed to perform the work. If the agency must acquire or lease substantially more equipment than required for its normal operation, it would be difficult to justify an affirmative finding of cost-effectiveness. While no contractor, subcontractor or agency owns all of the equipment that it may need, the costs associated with leasing equipment on a force account project should be a relatively minor portion of the overall cost. The FHWA Division Office and the State may elect to limit the percentage of equipment leasing costs for differing types of work.

         (b) In agency force account work, the rates on publicly owned equipment eligible for Federal participation may be the agreed unit price or actual cost. For agreed unit prices, the equipment need not be itemized on the estimate. If

the project is to be performed on the basis of actual cost, the estimate should include a schedule of rates, exclusive of profit, to be charged for the use of publicly owned equipment.

(2) **Use of minor agreements**. It is anticipated that the agency will perform all work with its own forces. However, in some instances, it may be appropriate for the agency to enter into agreements for specific minor services associated with the scope of work (e.g., guardrail installation). Such instances should be documented and pre-approved. Any work done by contract forces would be subject to prevailing wage rate requirements as appropriate.

(3) **Ability to comply with design, construction and material, quality standards.** The agency must have the ability to comply with the appropriate design, construction, and material quality standards.

(4) **Ability to document compliance with quality assurance requirements.** The agency must be able to obtain and document the same level of quality that is required for competitively let contracts under 23 CFR 637.

(5) **Schedule**.The project/contract completion time is to be equal for both agency and contract work estimates in order to provide a fair comparison of prices.

b. **Cost comparison**.Division Administrators must obtainsufficient cost information so that a cost-effectiveness determination can be made by comparing the total cost for the agency to perform the work versus the total cost using competitively bid prices. See the Appendix for a sample cost-effectiveness submittal.

(1) The agency's cost estimate should be prepared on a force account basis including estimated quantities and prices for material, labor, and equipment. The estimate should be based on one of two methods:

(a) Actual cost. Payment will be based on the actual cost of labor, materials, and equipment rates. Estimated hours and rates should be included and final reimbursement will be based on an audit of actual costs.

(b) Unit prices. Payment will be based on agreed unit prices and the actual number of units constructed. Agreed unit prices must be developed using quantities, man-hours, pay rates, material costs, and equipment rental rates.

(2) When an agency proposes to use previously purchased and stockpiled material, the value of the material should be the same as the price listed on the agency's cost inventory. All material must comply with FHWA's general material requirements in 23 CFR Subpart D.

(3) The agency should include all work items in the agency cost estimate (regardless of Federal participation) so that a fair comparison can be made with the estimate of contract work.

(4) The agency's total cost estimate should include an adjustment for the agency's overhead or indirect cost rates for labor, equipment, and materials. The agency's overhead or indirect costs rates must be developed in compliance with the Cost Principles for State, Local, and Indian Tribal Governments (2 CFR Part 225). More

information about application of these cost principles within the Federal-aid Highway Program may be found in the Clarification of Policy on Indirect Costs of State and Local Governments memorandum issued May 5, 2004.

(5) The total agency cost estimate should not be reduced by:

(a) Potential savings resulting from use of less than complete plans,

(b) Potential savings from reduced quality assurance during construction, and

(c) Anticipated savings from reduced construction management and documentation.

c. **Assurances that the project will comply with all Federal-aid requirements.**The agency must assure that it will comply with all applicable Title 23 requirements during construction such as the applicable sections of Form FHWA-1273 (Required Contract Provisions for Federal-aid Construction Projects), job site poster requirements, environmental commitments, etc.

d. **Assurances that the performance of the project by force account will not hinder the State's attainment of its approved Disadvantaged Business Enterprise (DBE) goal.**Whenever an agency performs work by force account, contracting opportunities are not available. Thus, the agency must assure that the performance of the project by force account will not negatively affect the ability of the State to achieve its approved DBE goal.

7. **At what point does an agency's price become more cost effective in comparison with competitive prices?** There is no specific percentage or margin that defines a cost effective determination. However, when comparing the estimate of the agency's prices with competitive prices, it is reasonable to expect that the agency's prices would produce a savings considering the normal price fluctuations in a competitive market.

8. **Do the General Material Requirements of 23 CFR 635, Subpart D, apply to force account work?** Yes. Materials used to complete the work must meet the requirements in 23 CFR 635, Subpart D.

9. **Do the Quality Assurance Procedures for Construction provisions of 23 CFR 637, Subpart B, apply to force account work?** The provisions of Part 637 apply to all projects on the National Highway System (NHS). Non-NHS Federal-aid projects may use the quality assurance procedures of the contracting agency as allowed by the FHWA Division Office and State DOT Stewardship and Oversight Agreement.

10. **Do the prevailing wage rate requirements of 23 CFR 635.117(f) apply to force account projects?**

a. Davis-Bacon prevailing wage rate requirements apply to mechanics and laborers employed by contractors and subcontractors on the site of the work. Davis-Bacon prevailing requirements apply to Federal-aid projects located within the right-of-way of a Federal-aid highway pursuant to 23 U.S.C. 113.

b. As it relates to agency force account work:

(1) Prevailing wage rate requirements do not apply to State, local, or municipal government employees of the owner-agency. Public agencies are not considered "contractors" or "subcontractors" within the meaning of the Davis-Bacon Act. (See the U.S. Department of Labor's Field Operations Handbook, Section FOH 15b06 (a).) Any work that is "subcontracted" to private firms, is subject to the application of prevailing wage requirements.

(2) The U.S. Department of Labor's May 29, 2009, letter to the U.S. Department of the Interior provides an advisory opinion that Federal prevailing wage rate requirements do not apply to Federal youth programs where a Federal statute establishes specific compensation to be given participants. On the other hand, State and local youth conservation corps employees and employees of other private organizations (non-profits) are subject to prevailing wage rate requirements.

11. **Is an agency allowed to perform a portion of a Federal-aid project on a force account basis and let a competitive contract for the remainder of the project?** Yes, however, the same principles apply to force account approvals when the agency is performing a portion of the project – there must be a finding of cost-effectiveness for that portion of the project. The FHWA must have the following assurances from the agency:

    a. The agency's work must be shown to be more cost effective than competitive bidding, and

    b. There must be some assurance that the agency's work will be an integral part of a functional project when completed. For example, a proposal for a State DOT to perform the final pavement markings on a roadway rehabilitation project would, by the nature of the pavement marking work, logically provide this assurance. On the other hand, a proposal for a LPA to perform utility adjustments on a roadway reconstruction project, by itself, does not provide an assurance that the force account work will result in a functional project.

12. **Is a cost-effectiveness finding necessary for a railroad or utility to perform minor adjustments on its own facility?** No. 23 CFR 635.205(b) states that it is cost effective to allow utilities and railroads to perform minor work on their own systems due to the inherent nature of the operations.

13. **Is there a limitation for an agency to request programmatic force account approval?** Yes. The approval should be limited to a specific time period, not to exceed 2 years. Consideration should be given to specific caps for projects or programs (e.g., capping the total annual value of specific preventive maintenance activities).

14. **What are the requirements for the approval of agency force account projects assumed by the State DOT?**

    a. The Stewardship and Oversight Agreement between the FHWA Division Office and the State DOT must address the assumption of this approval. Per 23 U.S.C. 106(c), the State DOTs shall assume this responsibility for all non-NHS projects and may, if appropriate, assume this responsibility for projects that are on the NHS but are not located on the Interstate System.

b. Agency force account approval authority shall not be further assumed by subrecipients, such as local public agencies. The State DOT is responsible for the review of cost-effectiveness of all LPA requests.

c. In all situations where this approval is assumed, the State DOT will be responsible for reviewing cost effectiveness determinations in accordance with the above procedures and ensuring that the project records adequately address any emergency or finding of cost-effectiveness.

15. **Are FHWA Division Office and the State DOT allowed to include additional review and approval procedures for agency force account cost-effectiveness determinations?** Yes. The Division Office and the State DOT may include additional review and approval procedures for cost-effectiveness determinations as long as these procedures do not conflict with this directive.

16. **Where can I obtain additional guidance**? For additional guidance, contact the FHWA's Office of Infrastructure Contract Administration Group Leader or the Office of Chief Counsel Senior Attorney Advisor on preconstruction approval procedures.

Victor M. Mendez
Administrator

Attachment

Appendix – Sample Cost-Effectiveness Determination

Description of Work:

Smith County proposes to install pavement markings as the final work item for the overlay of 0.9 miles of Smithfield Road. Contract forces will provide for the milling and resurfacing of the project by milling and providing a 2 inch overlay throughout the project limits.

Supporting Information:

- Smith County has the necessary experience and ability to perform the work. The County has been installing pavement markings on its roadway system for the past 10 years.
- The County will use its own equipment and does not need to rent equipment.
- The County will provide 100 percent of the labor and equipment for this work.
- The material will come from existing County stockpiles and supplies at a price currently listed in the County's inventory.
- All work will comply with MUTCD, 23 CFR 637 and State DOT requirements.
- Oversight, inspection and materials acceptance will follow State LPA standards.
- The use of Smith County forces will result in an estimated savings of approximately $2,700 when considering all contract and agency costs.

Cost-Effectiveness Analysis

Estimate of Contract Prices	
Mobilization	$ 1,000.00
Pavement Markings (11,000 lf @ $0.50/lf)	$ 5,500.00
Traffic Control Supervisor	$ 1,000.00
Contract Total	$ 7,500.00
Smith County Construction Engineering and Inspection at 10 percent	$ 750.00
Total Project Estimate by Contract Forces	$ 8,250.00
Estimate of Smith County Prices	
Labor	$ 675.00
Equipment	$ 573.50
Material	$ 2,125.30
Subtotal (labor, materials, equipment)	$ 3,373.80
Construction Engineering and Inspection at 10 percent	$ 337.38
Subtotal Smith County (labor, materials, equipment, CEI)	$ 3,711.18
Indirect Costs (Overhead at 50 percent)	$ 1,855.59
Smith County total estimated cost	$ 5,566.77
Difference in estimated costs	$ 1,933.23
Percentage difference	26 percent

Appendix D

FHWA Memo – ADA Curb Ramps

BRIEFING MEMO

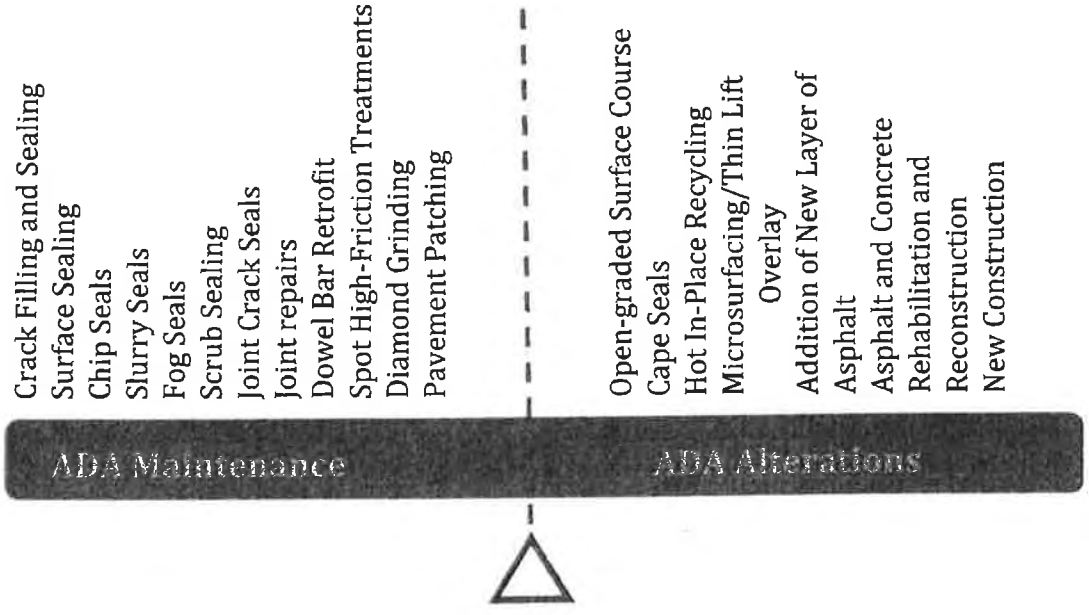
SUBJECT: Department of Justice/Department of Transportation Joint Technical Assistance on Title II of the Americans with Disabilities Act Requirements to Provide Curb Ramps when Streets, Roads, or Highways are Altered through Resurfacing

ISSUE: Throughout the nation, there are different interpretations and inconsistencies in enforcement of when curb ramps are required.

BACKGROUND: The Americans with Disabilities Act of 1990 (ADA) is a civil rights statute prohibiting discrimination against persons with disabilities in all aspects of life, including transportation, based on regulations promulgated by the United States Department of Justice (DOJ). DOJ's regulations require accessible planning, design, and construction to integrate people with disabilities into mainstream society. Further, these laws require that public entities responsible for operating and maintaining the public rights-of-way do not discriminate in their programs and activities against persons with disabilities. FHWA's ADA program implements the DOJ regulations through delegated authority to ensure that pedestrians with disabilities have the opportunity to use the transportation system's pedestrian facilities in an accessible and safe manner.

FHWA and DOJ met in March 2012 and March 2013 to clarify guidance on the ADA's requirements for constructing curb ramps on resurfacing projects. Projects deemed to be alterations must include curb ramps within the scope of the project.

SUMMARY OF PROPOSED GUIDANCE CLARIFICATION: This clarification provides a single Federal policy that identifies specific asphalt and concrete-pavement repair treatments that are considered to be alterations—requiring installation of curb ramps within the scope of the project—and those that are considered to be maintenance, which do not require curb ramps at the time of the improvement.



This approach clearly identifies the types of structural treatments that both DOJ and FHWA agree require curb ramps (when there is a pedestrian walkway with a prepared surface for pedestrian use and a curb, elevation, or other barrier between the street and the walkway) and furthers the goal of the ADA to provide increased accessibility to the public right-of-way for persons with disabilities. This single Federal policy will provide for increased consistency and improved enforcement.

Appendix E

FHWA Memo – Eligibility of Replacement Parts for Safety Related Hardware/Q&A Federal Eligibility

Federal-Aid Program Administration

Printable Version of this page (.pdf, 40 kb)

U.S. Department of Transportation
Federal Highway Administration

MEMORANDUM

Subject: **INFORMATION**: Eligibility of Replacement Parts for Safety-related Hardware

Date: June 10, 2008

From: /s/ Original signed by:
Dwight A. Horne
Director of Program Administration

Refer To: HIPA-30

To: Division Administrators

From mid-1976 through early 1991, the Office of Engineering and Traffic Operations issued a series of memorandums and notices on the eligibility of purchasing critical replacement parts for safety-related hardware, either as part of an on-going related Federal-aid highway construction project, or through a safety project established to replace and upgrade highway hardware. While the basic concepts expressed in those memorandums and notices are still valid, several specifics have been superseded by legislation and agency policy. Therefore, in coordination with the Offices of Asset Management, Bridge Technology, Operations, and Safety, we are now issuing this memorandum as an update to agency policy.

The prompt replacement and, if needed, upgrade of highway safety appurtenances remains a priority for FHWA, especially for situations where appurtenances have been damaged through highway crashes. Therefore, the construction, upgrading and replacement of highway safety-related appurtenances are eligible for Federal-aid participation in one of three ways:

1. Federal-aid highway construction and safety funds may be used to purchase a minimal number of essential replacement parts during a highway construction or safety project which installs or upgrades the safety appurtenances. The intent of this eligibility is to ensure the immediate availability of essential replacement parts (such as end treatment parts) that are damaged through no fault of the contractor during the Federal-aid construction project. The specific parts and quantity of each should be determined based on the scope of the project with the above stated intent in mind. All parts not used during construction may be retained by the State DOT for use on any public road in the State. Should the State DOT collect the cost of replacement for the damaged appurtenances at a specific location from the responsible party,

Contact

Peter Kleskovic
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Federal-aid participation is limited to the uncollected cost of the parts.

2. Federal-aid highway construction and safety funds may be used for upgrading damaged safety appurtenances in locations where the existing safety appurtenances do not meet the current safety standards. However, should the State DOT collect the cost of replacement for the damaged appurtenances at a specific location from the responsible party, Federal-aid participation is limited to the betterment cost for upgrading the appurtenances.
3. Some combination of State funds, Federal-aid highway construction and/or safety funds may be used for an established statewide program of safety-related upgrades in response to a change in safety standards.

Methods 2 and 3 may be accomplished through the use of either a contract or a public agency force account. Use of force account would require a finding that it is cost-effective in accordance with 23 CFR 635 Subpart B. A public interest finding will be needed if a specific proprietary product is used, (23 CFR 635.411 - Material or product selection), or if State purchase of any required components is utilized (23 CFR 635.407 - Use of materials made by a public agency).

Due to the agency's recognition that safety of the traveling public may be enhanced through the use of Intelligent Transportation Systems (ITS), the concept of "safety-related" appurtenances needs to take on a broader definition. For situations where a State DOT can demonstrate clearly the safety benefits of repairing a crash-damaged ITS installation, the replacement and upgrade of system components would be eligible for Federal-aid participation under an appropriate Federal-aid funding category. Additional information about the eligibility of operations and associated costs for ITS facilities is available in the memorandum, "Guidance on Federal-aid Eligibility of Operating Costs for Transportation Management Systems" issued on January 3, 2000.

The memorandums that are specifically superseded by this memorandum are:

- "Replacement Breakaway Hardware for Luminaire Supports," dated February 4, 1991;
- "Federal-Aid Participation in Construction, Upgrading, and Replacement of Highway Safety Appurtenances," issued April 23, 1982;
- "Federal-Aid Participation in Replacement of Highway Safety Appurtenances," issued November 3, 1980;
- "Funding Replacement of Safety Related Hardware," issued December 28, 1978; and
- "Funding of Replacement Parts for Crash Cushions," issued July 23, 1976.

Notice 7560.6 - "Federal-aid Participation in Replacement of Highway Safety Appurtenances," issued January 9, 1979, formally expired on December 1, 1979.

Questions about this policy should be referred to Vincent Barone at 202-366-4652.

cc:

Chief Counsel
Chief Financial Officer
Director of Field Services
Resource Center Manager

Questions and Answers Regarding June 10, 2008 Memorandum

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Updated: 04/07/2011

U.S. Department of Transportation
Federal Highway Administration

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Federal-Aid Program Administration

Questions and Answers Regarding June 10, 2008 Memorandum

Question (Q1): Are Federal funds still available for replacing (in kind) damaged safety appurtenances where existing safety appurtenances have already been upgraded to acceptable safety criteria?

Answer (A1): Our June 10, 2008 memo, while specifically addressing betterment situations, does not change the longstanding FHWA policy of eligibility of Federal funds for replacing damaged safety appurtenances. Where existing safety appurtenances have already been upgraded to acceptable safety criteria, regular Federal-aid highway construction funds and safety program funds are available for replacing (in kind) damaged safety appurtenances.

Updated: 02/21/2012

Contact

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Office of Program Administration
512-536-5906
E-mail David

FHWA

United States Department of Transportation - **Federal Highway Administration**

Appendix F

FHWA Memo - Pavement Preservation Definitions

U.S. Department of Transportation
Federal Highway Administration

MEMORANDUM

Subject: **Action:** Pavement Preservation Definitions
Date: September 12, 2005

From: /s/ Original signed by:
David R. Geiger, P.E.
Director, Office of Asset Management
Refer To: HIAM-20

To: Associate Administrators
Directors of Field Services
Resource Center Director and Operations Manager
Division Administrators
Federal Lands Highway Division Engineers

As a follow-up to our Preventive Maintenance memorandum of October 8, 2004, it has come to our attention that there are differences about how pavement preservation terminology is being interpreted among local and State transportation agencies (STAs). This can cause inconsistency relating to how the preservation programs are applied and their effectiveness measured. Based on those questions and a review of literature, we are issuing this guidance to provide clarification to pavement preservation definitions.

Pavement preservation represents a proactive approach in maintaining our existing highways. It enables STAs to reduce costly, time consuming rehabilitation and reconstruction projects and the associated traffic disruptions. With timely preservation we can provide the traveling public with improved safety and mobility, reduced congestion, and smoother, longer lasting pavements. This is the true goal of pavement preservation, a goal in which the FHWA, through its partnership with States, local agencies, industry organizations, and other interested stakeholders, is committed to achieve.

A Pavement Preservation program consists primarily of three components: preventive maintenance, minor rehabilitation (non structural), and some routine maintenance activities as seen in figure 1.

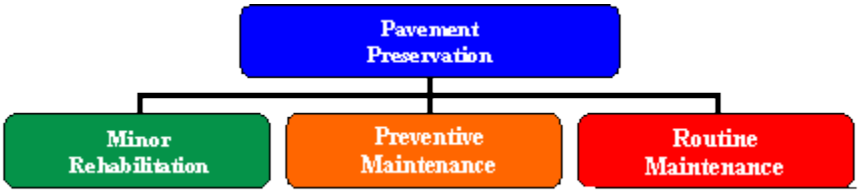

Figure 1: Components of Pavement Preservation

An effective pavement preservation program can benefit STAs by preserving investment on the NHS and other Federal-aid roadways, enhancing pavement performance, ensuring cost-effectiveness, extending pavement life, reducing user delays, and providing improved safety and mobility.

It is FHWA's goal to support the development and conduct of effective pavement preservation programs. As indicated above, pavement preservation is a combination of different strategies which, when taken together, achieve a single goal. It is useful to clarify the distinctions between the various types of maintenance activities, especially in the sense of why they would or would not be considered preservation.

For a treatment to be considered pavement preservation, one must consider its intended purpose. As shown in Table 1 below, the distinctive characteristics of pavement preservation activities are that they restore the function of the existing system and extend its service life, not increase its capacity or strength.

Pavement Preservation Guidelines					
	Type of Activity	**Increase Capacity**	**Increase Strength**	**Reduce Aging**	**Restore Serviceability**
	New Construction	X	X	X	X
	Reconstruction	X	X	X	X
	Major (Heavy) Rehabilitation		X	X	X
	Structural Overlay		X	X	X
	Minor (Light) Rehabilitation			X	X
Pavement Preservation	Preventive Maintenance			X	X
	Routine Maintenance				X
	Corrective (Reactive) Maintenance				X
	Catastrophic Maintenance				X

Table 1 - Pavement Preservation Guidelines

Definitions for Pavement Maintenance Terminology

Pavement Preservation is "a program employing a network level, long-term strategy that enhances pavement performance by using an integrated, cost-effective set of practices that extend pavement life, improve safety and meet motorist expectations." *Source: FHWA Pavement Preservation Expert Task Group*

An effective pavement preservation program will address pavements while they are still in good condition and before the onset of serious damage. By applying a cost-effective treatment at the right time, the pavement is restored almost to its original condition. The cumulative effect of systematic, successive preservation treatments is to postpone costly rehabilitation and reconstruction. During the life of a pavement, the cumulative discount value of the series of pavement preservation treatments is substantially less than the discounted value of the more extensive, higher cost of reconstruction and generally more economical than the cost of major rehabilitation. Additionally, performing a series of successive pavement preservation treatments during the life of a pavement is less disruptive to uniform traffic flow than the long closures normally associated with reconstruction projects.

Preventive Maintenance is "a planned strategy of cost-effective treatments to an existing roadway system and its appurtenances that preserves the system, retards future deterioration, and maintains or improves the functional condition of the system (without significantly increasing the structural capacity)." *Source: AASHTO Standing Committee on Highways, 1997*

Preventive maintenance is typically applied to pavements in good condition having significant remaining service life. As a major component of pavement preservation, preventive maintenance is a strategy of extending the service life by applying cost-effective treatments to the surface or near-surface of structurally sound pavements. Examples of preventive treatments include asphalt crack sealing, chip sealing, slurry or micro-surfacing, thin and ultra-thin hot-mix asphalt overlay, concrete joint sealing, diamond grinding, dowel-bar retrofit, and isolated, partial and/or full-depth concrete repairs to restore functionality of the slab; e.g., edge spalls, or corner breaks.

Pavement Rehabilitation consists of "structural enhancements that extend the service life of an existing pavement and/or improve its load carrying capacity. Rehabilitation techniques include restoration treatments and structural overlays." *Source: AASHTO Highway Subcommittee on Maintenance*

Rehabilitation projects extend the life of existing pavement structures either by restoring existing structural capacity through the elimination of age-related, environmental cracking of embrittled pavement

surface or by increasing pavement thickness to strengthen existing pavement sections to accommodate existing or projected traffic loading conditions. Two sub-categories result from these distinctions, which are directly related to the restoration or increase of structural capacity.

Minor rehabilitation consists of non-structural enhancements made to the existing pavement sections to eliminate age-related, top-down surface cracking that develop in flexible pavements due to environmental exposure. Because of the non-structural nature of minor rehabilitation techniques, these types of rehabilitation techniques are placed in the category of pavement preservation.

Major rehabilitation "consists of structural enhancements that both extend the service life of an existing pavement and/or improve its load-carrying capability." *Source: AASHTO Highway Subcommittee on Maintenance Definition*

Routine Maintenance "consists of work that is planned and performed on a routine basis to maintain and preserve the condition of the highway system or to respond to specific conditions and events that restore the highway system to an adequate level of service." *Source: AASHTO Highway Subcommittee on Maintenance*

Routine maintenance consists of day-to-day activities that are scheduled by maintenance personnel to maintain and preserve the condition of the highway system at a satisfactory level of service. Examples of pavement-related routine maintenance activities include cleaning of roadside ditches and structures, maintenance of pavement markings and crack filling, pothole patching and isolated overlays. Crack filling is another routine maintenance activity which consists of placing a generally, bituminous material into "non-working" cracks to substantially reduce water infiltration and reinforce adjacent top-down cracks. Depending on the timing of application, the nature of the distress, and the type of activity, certain routine maintenance activities may be classified as preservation. Routine Maintenance activities are often "in-house" or agency-performed and are not normally eligible for Federal-aid funding.

Other activities in pavement repair are an important aspect of a STA's construction and maintenance program, although they are outside the realm of pavement preservation:

Corrective Maintenance activities are performed in response to the development of a deficiency or deficiencies that negatively impact the safe, efficient operations of the facility and future integrity of the pavement section. Corrective maintenance activities are generally reactive, not proactive, and performed to restore a pavement to an acceptable level of service due to unforeseen conditions. Activities such as pothole repair, patching of localized pavement deterioration, e.g. edge failures and/or grade separations along the shoulders, are considered examples of corrective maintenance of flexible pavements. Examples for rigid pavements might consist of joint replacement or full width and depth slab replacement at isolated locations.

Catastrophic Maintenance describes work activities generally necessary to return a roadway facility back to a minimum level of service while a permanent restoration is being designed and scheduled. Examples of situations requiring catastrophic pavement maintenance activities include concrete pavement blow-ups, road washouts, avalanches, or rockslides.

Pavement Reconstruction is the replacement of the entire existing pavement structure by the placement of the equivalent or increased pavement structure. Reconstruction usually requires the complete removal and replacement of the existing pavement structure. Reconstruction may utilize either new or recycled materials incorporated into the materials used for the reconstruction of the complete pavement section. Reconstruction is required when a pavement has either failed or has become functionally obsolete.

If you need technical support or further guidance in the pavement preservation area, please contact Christopher Newman in the FHWA Office of Asset Management at (202) 366-2023 or via e-mail at Christopher.Newman@fhwa.dot.gov.

Printable Version

- PDF Version of this memo (43 kb)

Events

- **The World Conference on Pavements and Assets Management**
  Milan, Italy
  June 12-16, 2017

- View all Upcoming Pavement Events

More Information

- Pavement Publications
- System Preservation

Contact

- **Bryan Cawley**
  Office of Asset Management, Pavements, and Construction
  202-366-1333
  E-mail Bryan

PDF files can be viewed with the Acrobat® Reader®
Updated: 09/01/2015

Appendix G

General Services Contract Guidelines for Federal Reimbursement Items

General Services Contract Guidelines for Federal Reimbursement Items

The following guidelines are provided for use in General Services contracts, when purchasing materials for use in Federal reimbursed maintenance activities. The Language to be included, notes 10 items which shall be added to standard Terms and Conditions (T&C). Language that is prohibited, includes 5 items which shall be removed from the standard T&C.

Language to be Included:

1. Breach of Contract (>150K only)
2. Termination for Cause & Convenience (already in T&C)
3. Rights to Invention (only on research type projects)
4. Debarment & Suspension (in 1273 Form)
5. Clean Air Act (>150K only)
6. Anti-Lobby (>100K only)
7. Buy America
8. Bonding Requirements (already in T&C)
9. DBE Language (Contact ECR Division for appropriate language depending on your type of purchase)
10. E-Verify (already in T&C)

Language that is **PROHIBITED per FHWA**, please remove any language related to these items!!

1. Retainage
2. Contractor Warranty (only Manufacturer Warranty allowed)
3. Local Preference
4. Proprietary Items
5. Employ MO

Appendix H

QA/QC Guidelines and Documentation

Typical Activites	Material	Type	Inspection	Quantity needing Documentation Min	Max	Test Frequency	Record Frequency
R323, R313	Concrete	Bagged	Supplier Label				1 per purchase
		Redimix > X yards	Inspection by CM	25 CY		1 per 100 CY	1 per purchase
		Redimix < X yards	Ticket/Certification		25 CY	1 ticket per load	1 per purchase
	Epoxies	ALL	Approved List				`1 PAL ID# per product
	Rebar	ALL	PAL ID#				`1 PAL ID# per product
	Cure	ALL	PAL ID#				`1 PAL ID# per product
R322	Deck Sealers	ALL	Approved List				1 per purchase
R221	Striping	Beads	Approved List/Inspection by CM				1 per purchase
		Sprayables	Approved List/Inspection by CM				1 per purchase
		Tapes	Approved List				1 per purchase
R312	Asphalt Mix	Bagged	Approved List				
		Plant Mix > X tonnes	Inspection by CM/Certification by Supplier	150 tons		1 per 1000 tons	1 per day
		Cold Mix	Inspection by CM	100 tons			
		Plant mix < X tonnes	Ticket/Certification		150 tons		1 per day
R31C, R315	Emulsions	ALL	Approved List - QA/QC program AND ticket/certification			1 ticket per truckload	1 per purchase
R319, R312, R313, R31C, R315	Aggregates	> X tonnes	Inspection	200 tons		1 per 1000 tons	1 per day
		< X tonnes	Ticket/Certification		200 tons	1 ticket per truckload	1 per day
R317	Crack Fillers	ALL	Approved List or PAL ID#				`1 PAL ID# per product
R319	Culvert Pipe	CMP, RCP, Thermoplastic	Pipe ID#				`1 PIPE ID# per product

Attachment C

Capital Improvement Plan

2020 Fiscal Years: 2019/20 - 2024/25

September 10, 2020 • City of St. Peters, Missouri

Summary of Road and Signal Projects:

PROJECT NAME	DESCRIPTION	2019/20 BUDGET			2020/21			2021/22			2022/23			2023/24			2024/25		
		EXPENSE	REVENUE	NET	EXPENSE	REVENUE	NET	EXPENSE	REVENUE	NET	EXPENSE	REVENUE	NET	EXPENSE	REVENUE	NET	EXPENSE	REVENUE	NET
OTHER COSTS	CONSTRUCTION	120,000	-	120,000	120,000	-	120,000	120,000	-	120,000	120,000	-	120,000	120,000	-	120,000	120,000	-	120,000
QUEENSBROOK @ HARVESTER INTERSECTION AND SIGNAL	DESIGN	-	-	-	-	-	-	-	-	-	100,000	100,000	-	-	-	-	-	-	-
QUEENSBROOK @ HARVESTER INTERSECTION AND SIGNAL	ROW	-	-	-	-	-	-	-	-	-	-	-	-	25,000	25,000	-	-	-	-
QUEENSBROOK @ HARVESTER INTERSECTION AND SIGNAL	CONSTRUCTION	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	700,000	700,000	-
QUEENSBROOK @ HARVESTER INTERSECTION AND SIGNAL	CONSTRUCTION	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	467,000	(467,000)
MRMD CORRIDOR IMPROVEMENTS (COTTLEVILLE PKWY to EDC)	CONSTRUCTION	74,930	32,115	42,815	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MCCLAY ROAD RESURFACING B (JUNGERMANN ROAD TO MCCLAY VALLEY)	CONSTRUCTION	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,335,400	1,068,320	267,080
CENTENNIAL GREENWAY PHASE 4	DESIGN	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CENTENNIAL GREENWAY PHASE 4	ROW	50,000	40,000	10,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CENTENNIAL GREENWAY PHASE 4	UTILITY	100,000	80,000	20,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CENTENNIAL GREENWAY PHASE 4	CONSTRUCTION	1,100,000	603,315	496,685	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ARROWHEAD IND.-SRA INTERSECTION	DESIGN	19,990	-	19,990	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ARROWHEAD IND.-SRA INTERSECTION	ROW	65,000	-	65,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ARROWHEAD IND.-SRA INTERSECTION	CONSTRUCTION	1,106,535	1,009,460	97,075	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SUEMANDY DRIVE WIDENING (GRAND TETON TO VMP)	DESIGN	-	-	-	-	-	-	-	-	-	60,000	48,000	12,000	-	-	-	-	-	-
SUEMANDY DRIVE WIDENING (GRAND TETON TO VMP)	ROW	-	-	-	-	-	-	-	-	-	-	-	-	50,000	40,000	10,000	-	-	-
SUEMANDY DRIVE WIDENING (GRAND TETON TO VMP)	UTILITY	-	-	-	-	-	-	-	-	-	-	-	-	150,000	120,000	30,000	-	-	-
SUEMANDY DRIVE WIDENING (GRAND TETON TO VMP)	CONST. ENGINEERING	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20,000	16,000	4,000
SUEMANDY DRIVE WIDENING (GRAND TETON TO VMP)	CONSTRUCTION	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	667,000	533,600	133,400
JUNGERMANN ROAD BRIDGE REPLACEMENT	UTILITY	148,000	-	148,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
JUNGERMANN ROAD BRIDGE REPLACEMENT	CONSTRUCTION (BRM)	51,650	-	51,650	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
JUNGERMANN ROAD BRIDGE REPLACEMENT	CONSTRUCTION (ROADWAY)	16,525	-	16,525	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
JUNGERMANN RD/P-28	CONSTRUCTION	8,965	-	8,965	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
JUNGS STATION ROAD RESURFACING	DESIGN	-	-	-	-	-	-	-	-	-	228,505	182,805	45,700	-	-	-	-	-	-
JUNGS STATION ROAD RESURFACING	ROW	-	-	-	-	-	-	-	-	-	-	-	-	40,000	32,000	8,000	-	-	-
JUNGS STATION ROAD RESURFACING	CONSTRUCTION	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,725,980	1,380,785	345,195
CITYWIDE BRIDGE REHAB - MEXICO @ DARDENE	DESIGN	-	-	-	65,320	52,265	13,065	-	-	-	-	-	-	-	-	-	-	-	-
CITYWIDE BRIDGE REHAB - MEXICO @ DARDENE	CONSTRUCTION	-	-	-	-	-	-	-	-	-	481,465	384,770	96,695	-	-	-	-	-	-
CITYWIDE BRIDGE REHABILITATION	DESIGN	-	-	-	-	-	-	-	-	-	195,000	156,000	39,000	-	-	-	-	-	-
CITYWIDE BRIDGE REHABILITATION	CONSTRUCTION	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,300,000	1,248,000	52,000
EXECUTIVE DRIVE EXTENSION	DESIGN	-	-	-	90,000	72,000	18,000	-	-	-	-	-	-	-	-	-	-	-	-
EXECUTIVE DRIVE EXTENSION	ROW	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EXECUTIVE DRIVE EXTENSION	CONSTRUCTION	-	-	-	-	-	-	650,000	520,000	130,000	-	-	-	-	-	-	-	-	-
LUTHERAN ROAD EXT (HS/MEXICO TO EXECUTIVE CENTRE PKWY)	DESIGN	-	-	-	-	-	-	-	-	-	-	-	-	120,000	96,000	24,000	-	-	-
LUTHERAN ROAD EXT (HS/MEXICO TO EXECUTIVE CENTRE PKWY)	ROW	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LUTHERAN ROAD EXT (HS/MEXICO TO EXECUTIVE CENTRE PKWY)	CONSTRUCTION	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	810,000	648,000	162,000
FLASHING LED PEDESTRIAN CROSSING SIGNS - WILLOTT RD/ENDOWOOD	CONSTRUCTION	6,700	-	6,700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SPENCER ROAD (LAKESIDE DR TO LOT 13 OF 370 LAKESIDE PARK)	CONSTRUCTION	-	-	-	1,000,000	-	1,000,000	-	-	-	-	-	-	-	-	-	-	-	-
MRMD @ 364 ENTRANCE MONUMENT	CONSTRUCTION	75,000	-	75,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MRMD @ I-70 ENTRANCE MONUMENT	CONSTRUCTION	150,000	-	150,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SPENCER RD EXTENSION (WEST END)	CONSTRUCTION	-	-	-	1,400,000	1,400,000	-	-	-	-	-	-	-	-	-	-	-	-	-
SPENCER ROAD & PREMIER PKWY WEST TRANSPORTATION IMPROVEMENTS	DESIGN	100,000	80,000	20,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SPENCER ROAD & PREMIER PKWY WEST TRANSPORTATION IMPROVEMENTS	CONSTRUCTION	1,200,000	758,856	441,144	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SALT RIVER RD/MO 370 INTERCHANGE RAMP 1	DESIGN	150,000	115,000	35,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SALT RIVER RD/MO 370 INTERCHANGE RAMP 1	CONSTRUCTION	-	-	-	-	-	-	3,250,340	1,114,305	136,035	-	-	-	-	-	-	-	-	-
SALT RIVER RD/MO 370 INTERCHANGE RAMP 2	DESIGN	1,000,000	800,000	200,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SALT RIVER RD/MO 370 INTERCHANGE RAMP 2	ROW	10,000	8,000	2,000	-	-	-	220,000	176,000	44,000	-	-	-	-	-	-	-	-	-
SALT RIVER RD/MO 370 INTERCHANGE RAMP 2	CONSTRUCTION	-	-	-	-	-	-	-	-	-	12,830,650	11,467,575	1,363,075	-	-	-	-	-	-
MRMD MULTI-USE PATH EXTENSION (HWY N TO MO 364)	DESIGN	-	-	-	-	-	-	141,335	135,740	5,655	-	-	-	-	-	-	-	-	-
MRMD MULTI-USE PATH EXTENSION (HWY N TO MO 364)	ROW	-	-	-	-	-	-	-	-	-	15,000	14,400	600	-	-	-	-	-	-
MRMD MULTI-USE PATH EXTENSION (HWY N TO MO 364)	CONSTRUCTION	-	-	-	-	-	-	-	-	-	-	-	-	1,068,000	1,035,280	42,720	-	-	-
EXECUTIVE CENTRE BLVD GREAT STREET	DESIGN	-	-	-	-	-	-	-	-	-	255,000	204,000	51,000	-	-	-	-	-	-
EXECUTIVE CENTRE BLVD GREAT STREET	ROW	-	-	-	-	-	-	-	-	-	-	-	-	100,000	80,000	20,000	-	-	-
EXECUTIVE CENTRE BLVD GREAT STREET	UTILITY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EXECUTIVE CENTRE BLVD GREAT STREET	CONSTRUCTION	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100,000	96,000	4,000
I-70 NOR & SOR ALIGNMENT STUDY	CONSTRUCTION	-	-	-	-	-	-	300,000	240,000	60,000	-	-	-	-	-	-	1,500,000	1,440,000	60,000
JUNGERMANN ROAD SAFETY IMPROVEMENTS	CONSTRUCTION	160,745	138,000	22,745	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SPENCER ROAD RECONSTRUCTION	DESIGN	121,450	97,160	24,290	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SPENCER ROAD RECONSTRUCTION	ROW	-	-	-	10,000	8,000	2,000	-	-	-	-	-	-	-	-	-	-	-	-
SPENCER ROAD RECONSTRUCTION	UTILITY	-	-	-	-	-	-	-	-	-	10,000	9,600	400	-	-	-	-	-	-
SPENCER ROAD RECONSTRUCTION	CONSTRUCTION	-	-	-	-	-	-	-	-	-	1,509,175	1,448,810	60,365	-	-	-	-	-	-
MEXICO ROAD SIDEWALK AND STABILIZATION	DESIGN	-	-	-	-	-	-	-	-	-	128,509	123,369	5,140	-	-	-	-	-	-
MEXICO ROAD SIDEWALK AND STABILIZATION	ROW	-	-	-	-	-	-	-	-	-	-	-	-	165,000	158,400	6,600	-	-	-
MEXICO ROAD SIDEWALK AND STABILIZATION	UTILITY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20,000	19,200	800
MEXICO ROAD SIDEWALK AND STABILIZATION	CONSTRUCTION	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	550,700	912,670	38,030
BARKWOOD TRAILS RECONSTRUCTION	DESIGN	-	-	-	-	-	-	-	-	-	334,340	324,870	9,370	-	-	-	-	-	-
BARKWOOD TRAILS RECONSTRUCTION	ROW	-	-	-	-	-	-	-	-	-	-	-	-	30,000	28,800	1,200	-	-	-
BARKWOOD TRAILS RECONSTRUCTION	UTILITY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BARKWOOD TRAILS RECONSTRUCTION	CONSTRUCTION	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,760,265	1,688,495	70,770
MRMD @ ST. PETERS-HOWELL RD INTERSECTION	DESIGN	-	-	-	60,270	57,860	2,410	-	-	-	-	-	-	-	-	-	-	-	-
MRMD @ ST. PETERS-HOWELL RD INTERSECTION	ROW	-	-	-	-	-	-	40,000	38,400	1,600	-	-	-	-	-	-	-	-	-
MRMD @ ST. PETERS-HOWELL RD INTERSECTION	CONSTRUCTION	-	-	-	-	-	-	-	-	-	455,240	437,030	18,210	-	-	-	-	-	-
TRUMAN ROAD FLOOD MITIGATION	DESIGN	-	-	-	143,300	128,970	14,330	-	-	-	-	-	-	-	-	-	-	-	-
TRUMAN ROAD FLOOD MITIGATION	CONSTRUCTION	-	-	-	1,432,500	1,289,250	143,250	-	-	-	-	-	-	-	-	-	-	-	-
SALT RIVER ROAD MULTI-USE PATH (MRMD to SPENCER ROAD)	DESIGN	-	-	-	-	-	-	100,000	80,000	20,000	-	-	-	-	-	-	-	-	-
SALT RIVER ROAD MULTI-USE PATH (MRMD to SPENCER ROAD)	ROW	-	-	-	-	-	-	-	-	-	50,000	40,000	10,000	-	-	-	-	-	-
SALT RIVER ROAD MULTI-USE PATH (MRMD to SPENCER ROAD)	CONSTRUCTION	-	-	-	-	-	-	-	-	-	-	-	-	800,000	640,000	160,000	-	-	-
GRAND TOTAL FUNDED ROAD AND SIGNAL PROJECTS		6,055,490	3,967,716	2,087,774	4,321,450	3,008,345	1,313,051	4,821,715	4,304,445	517,290	16,684,771	14,851,221	1,833,554	2,668,000	2,245,480	422,520	11,018,345	10,328,070	790,275

Rec-Plex Natatorium Renovation Project

ST. PETERS MISSOURI

2020-2021 ANNUAL BUDGET

City of St. Peters, Missouri

CITY OF ST. PETERS
TRANSPORTATION TRUST FUND – TDS
STREETS MAINTENANCE

FY21 OBJECTIVES

1. Continue to promote "Safety First" to all employees and achieve zero lost work days. 1
2. Maintain overall customer service rating to a minimum of 90%. 1 1
3. Complete the 2020/21 pavement management program as scheduled and budgeted. 2,4 1,2,3
4. Seek and obtain available transportation funding to leverage the project budgets for various transportation maintenance projects. 2,3
5. Continue implementation of the Gateway Guide Bike Plan and incorporate best operation practices in to ongoing and upcoming City transportation projects. 5 2 2
6. Assist with development and implement City ADA transition plan. 2,5 3 1 2

Safe Healthy Prosperous Sustainable Innovative Connected Community

CITY OF ST. PETERS
TRANSPORTATION TRUST FUND – TDS
TRAFFIC MANAGEMENT

PRIOR YEAR OBJECTIVES AND RESPONSES TO THOSE OBJECTIVES

1. Continue to promote "Safety First" to all employees and achieve zero lost work days. 1
   (Ongoing. To date the Traffic Department has achieved 4,855 calendar days without a lost time accident.)
2. Maintain overall customer service rating to a minimum of 90%. 1 1
   (Ongoing. The Traffic Department currently has a 100% overall customer service rating.)
3. Complete the 2019/20 traffic signal capital replacement program as scheduled and budgeted. 2,4 1,2,3
   (Ongoing. The Traffic department has scheduled the replacement of 2 traffic signals and construction of 1 new signal.)
4. Complete the 2019/20 road and signal improvement projects as scheduled and budgeted. 2,4,5 2 3 4 2
   (Ongoing. The Traffic department is currently managing the construction of 3 road and signal projects. 2 additional projects will be bid and awarded in late spring or early summer 2020.)
5. Seek and obtain available transportation funding to leverage the project budgets for various transportation maintenance projects. 2,3
   (Ongoing. The department submitted 6 project for federal funding consideration totaling $10,000,000. The department will be submitting 5 St. Charles County Road Board funding applications, totaling $5,300,000, in late March.)
6. Continue implementation of the Gateway Guide Bike Plan and incorporate best operation practices in to ongoing and upcoming City transportation projects. 5 2 2
   (Ongoing. Design is ongoing for the Centennial Greenway Phase 4 project. Gateway Bike Plan elements are being included in the design of future road and traffic signal projects.)
7. Continue implementation of City ADA Transition Plan. 2,5 3 1 2
   (Ongoing. The City's ADA Transition Plan was formally adopted in 2019. Budgeted transportation related capital and maintenance projects include accessible improvements. The plan will be updated to include appendixes summarizing the accessible improvements completed.)
8. Prepare and implement Bridge Maintenance Plan. 2,4 2,3 1 2
   (Ongoing. The department has prepared a draft bridge management plan modeled after the plan adopted by the Missouri Department of Transportation (MODOT). Staff is attending bridge maintenance training and submitting federal funding applications to implement plan elements.)

FY21 OBJECTIVES

1. Continue to promote "Safety First" to all employees and achieve zero lost work days. 1
2. Maintain overall customer service rating to a minimum of 90%. 1 1
3. Complete the 2020/21 traffic signal capital replacement program as scheduled and budgeted. 2,4 1,2,3
4. Complete the 2020/21 road and signal improvement projects as scheduled and budgeted. 2,4,5 2 3 4 2
5. Seek and obtain available transportation funding to leverage the project budgets for various transportation maintenance projects. 2,3
6. Continue implementation of the Gateway Guide Bike Plan and incorporate best operation practices in to ongoing and upcoming City transportation projects. 5 2 2
7. Continue implementation of City ADA Transition Plan. 2,5 3 1 2
8. Prepare and implement Bridge Maintenance Plan. 2,4 2,3 1 2
9. Prepare and implement Traffic Management Plan. 2,4 3 4 1 2
10. Prepare on and off street bicycle and pedestrian plan that coincides with Great Rivers Greenway master plan. 2,5 2 2

Safe Healthy Prosperous Sustainable Innovative Connected Community

Attachment D

Operations and Maintenance Form

Name of Local Public Agency	City of St. Peters
State	Missouri

1. How many lane miles (total) are maintained by your city/agency, or for transit agencies how many vehicles are in your fleets. If unable to provide lane miles then list centerline miles.

Lane miles vs Centerline miles — If you don't know what the difference between a lane mile and centerline mile contact Jason Lange

Total Lane Miles	547	(in miles)	**or**	Total Centerline Miles	(in miles)

Transit Agencies Only

# of Vehicles in Fleet	

2. Budget Information

Year of most recent budget	2021	
Budgeted total revenue	$95,653,120.00	**Entire municipal or county budget**
Sources of revenue (i.e. sales tax, property tax, motor fuel tax)	Sales tax, property tax, transportation sales tax and various license, operation and service fees	

3. Total expenditures for transportation operations and maintenance – from your current budget

(*This would include, in total, how much is budgeted for: salaries, fringe benefits, materials and equipment needed to deliver the roadway and bridge maintenance programs. This includes basic maintenance activities like minor surface treatments such as: sealing, small concrete repairs and pothole patching; mowing right of way; snow removal; replacing signs; striping; repairing guardrail; and repairing traffic signals) - DO NOT INCLUDE CAPITAL IMPROVEMENTS SUCH AS OVERLAY RESURFACING, TIP PROJECTS, OR OTHER MAJOR ROAD/SIDEWALK PROJECTS*

Total Transportation Operations and Maintenance Expenditures	$10,742,235.00

Please use information from the most current budget for your city/agency.

Updated: 10/2018

APPENDIX E

2022 MoDOT Bridge Inspection Report

Mexico Rd at Dardenne Creek Bridge

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Missouri Department of Transportation
Bridge Inventory and Inspection System
Non-State Structure Inspection Report

County : ST. CHARLES **District :** SL **Class :** NONSTATBR **Bridge :** 3885008 1 **Federal ID :** 23080

GENERAL STRUCTURE INFORMATION

[5D] Route :	00000	[41] Structure Status :	A-OPEN - NO RESTRICTIONS
[4] Place Code :	65126 ST. PETERS CITY	[9] Location :	S 0 T 47 R 3 E
[6] Features Intersected :	DARDENNE CR	[22] Owner :	CITY
[7] Facility Carried :	MEXICO RD	[26] Functional Classification :	UOTHPRINAR
[16] Latitude :	38 47 14.57 (DMS)	[21] Maintenance Responsibility :	CITY
[17] Longitude :	90 38 41.02 (DMS)	[11] Milepoint :	5.14 MILES

AGE AND SERVICE - GEOMETRIC DATA - MATERIAL

[27] Year Built :	1988	[106] Year Reconstructed :	
[49] Structure Length :	228 FT.	[51] Bridge Width :	52 FT. 0 IN.
[32] Approach Roadway Width :	52 FT. 0 IN.	[52] Deck Width :	60 FT. 8.4 IN.
[42B] Type of Service Under :	WATERWAY	[28A] Lanes On :	4
[19] Detour Length :	4.96 MILES	[28B] Lanes Under :	0

COMPONENTS	# SPANS	PRED	MATERIAL	CONSTRUCTION
MAIN SERIES	3	X	PRESTRESSED CONCRETE	I-GIRDERS
[107] Deck Type :			REINCONC	CIP-P/C
[108A] Wearing Surface :			PLAINCONC	MONOLITHIC
[108B] Membrane :			NOTAPPLIC	NONE
[108C] Deck Protection :			EPOXYPOLYM	COATREBAR

AADT INFORMATION

[29] AADT on Structure :	22,000	[30] Year :	2020	[109] AADT Truck :	5 %
[114] Future AADT :	34,100	[115] Year :	2040	[102] Direction of Traffic :	2-WAY TRAFFIC

STRUCTURE POSTING

FIELD POSTING Problem Code : Problem Direction Code :

Category : S-1 NO POSTING REQUIRED

Ton 1 : Ton 2 : Ton 3 :

APPROVED POSTING

Category : S-1 NO POSTING REQUIRED

Ton 1 : Ton 2 : Ton 3 :

COMPUTER GENERATED DEFICIENCY AND EVALUATION ITEMS

NOTE: The items listed in this section are updated whenever computer edits are ran on a structure after the inspection updates have been entered in to TMS.

Rated Item	Rating	Rating Date
[Item 67] Structure Evaluation Rating:	5-BETTER THAN MINIMUM	2/9/2022
[Item 68] Deck Geometry Rating:	4-MEETS MINIMUM TOLERABLE	2/9/2022
[Item 69] Underclearance:	N-NOT APPLICABLE	2/9/2022
Sufficiency Rating:	58.7 %	2/9/2022
Deficiency:	NOT DEFICIENT	2/9/2022

Funding Eligibility:

Estimated New Structure Length:

Estimated Structure Cost:

Estimated Total Project Cost:

Year of Cost Estimate:

NOTE: The above structure length and cost estimates are computer generated using algorithims in the TMS system. These algorthims are generalized to use NBI items to come up with a new structure length and width to calculate a new area which is taken times a representative cost per square foot. The actual structure size and cost may vary significantly from these numbers once site specific engineering is done.

County = ST. CHARLES and Due_Before_Date = 01/22/2024 and Due_After_Date = 01/20/2024 and District = SL

Missouri Department of Transportation
Bridge Inventory and Inspection System
Non-State Structure Inspection Report

County : ST. CHARLES **District :** SL **Class :** NONSTATBR **Bridge :** 3885008 1 **Federal ID :** 23080

****STRUCTURE GENERAL INSPECTION****

[90] Inspection Type: GENERAL **[91] Designated Frequency:** 24 **Inspection Responsibility:** DISTRICT
Inspection Date: 1/21/2022 **** Calculated Frequency:** 24 **Element Inspection Required:** YES

** If designated interval is exceeded, then a comment providing justification must be added. Exceeding the interval by more than one month requires Bridge Division approval.

General Inspection Comments

Inspector	Team Leader	Organization
KATE MARSHALL	X	MODOT

****UNDERWATER INSPECTION****

Inspection Category: DRY **[92B] Designated Frequency:** 60 **Inspection Responsibility:** DISTRICT
Inspection Date: 1/21/2022 ****Calculated Frequency:** **NBI:** NO

** If designated interval is exceeded, then a comment providing justification must be added. Exceeding the interval by more than one month requires Bridge Division approval.

Underwater Inspection Comments

Inspector	Team Leader	Organization
KATE MARSHALL	X	MODOT

****SPECIAL INSPECTION****

Inspection Category: QUALITY ASSURANCE **[92C] Designated Frequency:** 999 **Inspection Responsibility:** BRIDGEDIV
Inspection Date: 4/21/2016 ****Calculated Frequency:** **NBI:** NO

** If designated interval is exceeded, then a comment providing justification must be added. Exceeding the interval by more than one month requires Bridge Division approval.

Special Inspection Comments

Inspector	Team Leader	Organization
TERRY WILSON		MODOT

****OTHER SPECIAL INSPECTIONS****

Category	Frequency	Calculated Frequency**	Date	Inspection Responsibility	NBI
CHANNEL CROSS SECTIONS	120		01/14/2014	DISTRICT	NO

** If designated interval is exceeded, then a comment providing justification must be added. Exceeding the interval by more than one month requires Bridge Division approval.

County : ST. CHARLES **District :** SL **Class :** NONSTATBR **Bridge :** 3885008 1 **Federal ID :** 23080

****GENERAL COMMENTS AND CONDITION RATINGS****

General Comments :

(HOLZBJ, 08/22/2002)--CITY OF ST. PETERS. 3-SPAN.

(LAUGHJ, 09/24/2020)--BEAP PROJECT 20TTAP-04

[Item 58]--Deck Condition Rating: 6-SATISFACTORY CONDITION **Rating Date:** 01/27/2020

Deck Rating Comments

(DOLEJC, 01/27/2014)--L-CRKS OVER INTERMED. BENTS

(DOLEJC, 01/27/2016)--RANDOM POPOUTS AND SMALL PITS IN SURFACE

(DOLEJC, 01/27/2016)--FEW P/C PANEL CRKS W/MINOR LEACHING

(DOLEJC, 01/16/2018)--MANY SIDEWALK POPOUTS

(DOLEJC, 01/16/2018)--N EDGE SPALL AT W ABUTMENT

(DOLEJC, 01/16/2018)--MINOR DRIVING SURFACE WEAR THROUGHOUT

(DOLEJC, 01/16/2018)--MANY FINE CRACKS THROUGHOUT

(DOLEJC, 01/27/2020)--LONGITUDINAL CRACKS AT DECK END, MODERATE AT E END

(DOLEJC, 01/27/2020)--FEW MINOR OVERHANG T-CRKS W/LEACHING AND EFFLOR.

(DOLEJC, 01/27/2020)--MOD P/C DECK PANEL SPALL AT W ABUTMENT W/STRANDS EXPOSED AND MODERATE SATURATION

[Item 59]--Superstructure Condition Rating: 5-FAIR CONDITION **Rating Date:** 01/15/2018

Superstructure Rating Comments

(DOLEJC, 02/01/2014)--MOD RUST STAIN ON EAST ENCASEMENT AND MOD EFF.

(DOLEJC, 01/16/2018)--MOD DELAMS AT GIRD ENCASEMENT, W ENCASEMENT W/HIGH STEEL SPALLS

(DOLEJC, 01/16/2018)--NW WING ENCASEMENT HAS LARGE SPALLS , DELAMINATIONS AND REBAR EXPOSURE

(DOLEJC, 01/27/2020)--MINOR RANDOM VERTICAL CRACKS AT ENCASEMENT

(DOLEJC, 01/27/2020)--MOD TO HEAVY ACTIVE LEACHING, SATURATION THRU SUB/SUPER INTERFACE W/MOD EFFLOR. AND RUST AT ENCASEMENTS, ESPECIALLY AT E ABUTMENT

(DOLEJC, 01/27/2020)--MINOR S EXT GIRD SPALL AT BOTTOM FLANGE IN W SPAN NEAR INTERMEDIATE BENT

(DOLEJC, 01/27/2020)--MINOR BOTTOM FLANGE PATCHES AT W SPAN, 2ND BEAM FROM S

(MARSHK2, 03/03/2022)--3RD GIRDER FROM NORTH I WEST SPAN HAS 2' X 2' DELAM ON BOTTOM FACE, NEAR WEST ABUTMENT

[Item 60]--Substructure Condition Rating: 5-FAIR CONDITION **Rating Date:** 01/15/2018

Compass Direction: WEST to EAST

Substructure Rating Comments

(DOLEJC, 01/27/2016)--MINOR LEACHING, SATURATION THRU SUB/SUPER INTERFACE AND ENCASEMENTS.

(DOLEJC, 03/10/2016)--ISSUES AT NORTH END OF BOTH ABUTMENTS, MAJOR WATER LEACHING SPEEDING DETERIORATION OF DIAPHRAGM AND CAP, MINOR DELAMS AND V-CRKS

(DOLEJC, 01/16/2018)--CRACKS W/EFFLOR AT SE WING

(DOLEJC, 01/16/2018)--NW QUAD WING ENCASEMENT HAS LARGE SPALLS/DELAMS WITH EFFLOR. AND EXPOSED REBAR

(DOLEJC, 01/16/2018)--MINOR SCRAPES ON W BENT CAP AND COLUMNS

(DOLEJC, 01/27/2020)--RANDOM MINOR ABUT DELAMS W SIDE

(DOLEJC, 01/27/2020)--MINOR CAP SPALL AT E CAP BOTTOM S END

(DOLEJC, 01/27/2020)--MODERATE CRACKS AT E INTERIOR BENT CAP S END

(MARSHK2, 03/03/2022)--VERY HEAVY EROSION ALONG NW WING CAUSING HUGE HOLE UNDER WING, ABUTMENT BEAM AND W SLOPE PROTECTION - COVERED WITH LOOSE, SMALL ROCK AT 2020 INSPECTION, BUT VOIDS STILL PRESENT. WATERMAIN BREAK PRIOR TO 2022 INSPECTION HAS WASHED AWAY THE SMALL ROCK. PILE STARTING TO RUST

County : ST. CHARLES **District :** SL **Class :** NONSTATBR **Bridge :** 3885008 1 **Federal ID :** 23080

[Item 61]--Channel Condition Rating: 6-WIDESPREAD MINOR DAMAGE **Rating Date:** 01/27/2014

Rating Comments

(DOLEJC, 01/27/2016)--MINOR DETERIORATION OF GROUTED SLOPE W/LARGE VOIDS AT W SLOPE

(DOLEJC, 01/16/2018)--MOD EROSION AT W BANK.

[Item 62]--Culvert Condition Rating: N-NOT APPLICABLE **Rating Date:** 03/01/2002

Rating Comments

County : ST. CHARLES **District :** SL **Class :** NONSTATBR **Bridge :** 3885008 1 **Federal ID :** 23080

****APPRAISAL RATINGS****

[Item 36A]--Bridge Railing Appraisal: MEETS CURRENT STANDARDS-1 **Rating Date:** 03/01/2002

Rating Comments
(DOLEJC, 02/01/2014)--V-CRKS W/LT EFF
(DOLEJC, 01/16/2018)--R/C SAFETY BARRIER CURB
(DOLEJC, 01/27/2020)--FEW MINOR TOP SPALLS

[Item 36B]--Transition Railing Appraisal: DOESNT MEET CURRNT STND-0 **Rating Date:** 03/28/2006

Rating Comments
(DOLEJC, 01/16/2018)--W-BEAM (ALL)

[Item 36C]--Approach Railing Appraisal: MEETS CURRENT STANDARDS-1 **Rating Date:** 03/28/2006

Rating Comments
(DOLEJC, 01/16/2018)--W-BEAM (ALL)
(DOLEJC, 01/27/2020)--MINOR COLLISION DAMAGE AT SE

[Item 36D]--Rail End Treatment Appraisal: DOESNT MEET CURRNT STND-0 **Rating Date:** 03/28/2006

Rating Comments
(DOLEJC, 01/27/2020)--NE QUAD IS TURNDOWN
(DOLEJC, 01/27/2020)--SE SIDE IS FLARED. CRASHWORTHY ON WEST END

[Item 71]--Waterway Adequacy: DECK ABOVE FLOOD ELEV **Rating Date:** 03/01/2002

Rating Comments

[Item 72]--Approach Roadway Alignment: 8-VERYGOOD **Rating Date:** 03/01/2002

Rating Comments
(DOLEJC, 02/01/2014)--L-CRKS @ W APPR
(DOLEJC, 01/16/2018)--BROKEN ROADWAY CURB AT NE QUAD
(DOLEJC, 01/27/2020)--MINOR SCALING W APPROACH
(DOLEJC, 01/27/2020)--MOD SPALLS AT W APPROACH SLAB FILLED WITH ASPHALT
(DOLEJC, 01/27/2020)--MOD SETTLEMENT AT E APPR - BOTH APPROACH SLABS ASPHALT COVERED (W END ONLY EB SIDE)
(DOLEJC, 01/27/2020)--E END RAVELED AT DECK JOINT, OXIDIZED AND CRACKED

[Item 113]--Scour Assessment: 8-STABLE FOR CALCULATED **Rating Date:** 3/1/2002

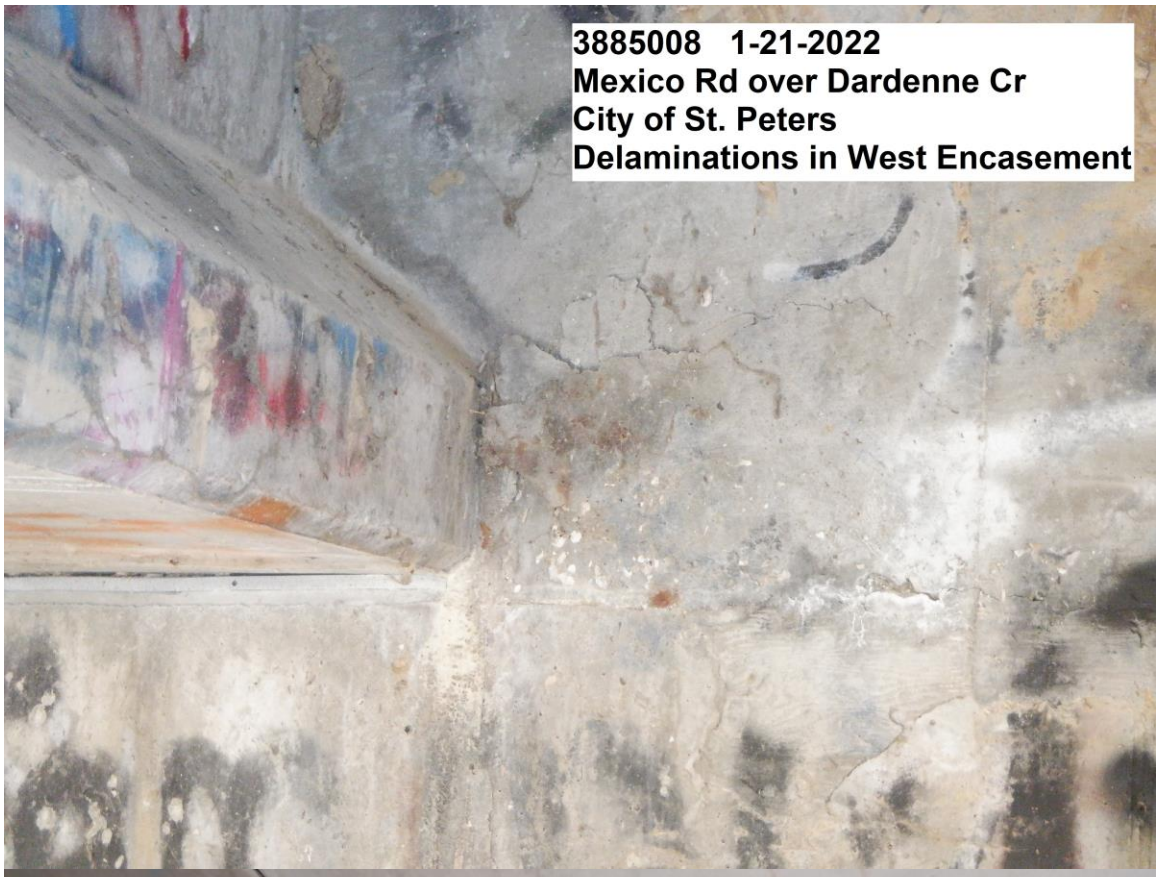
Type of Scour Evaluation:

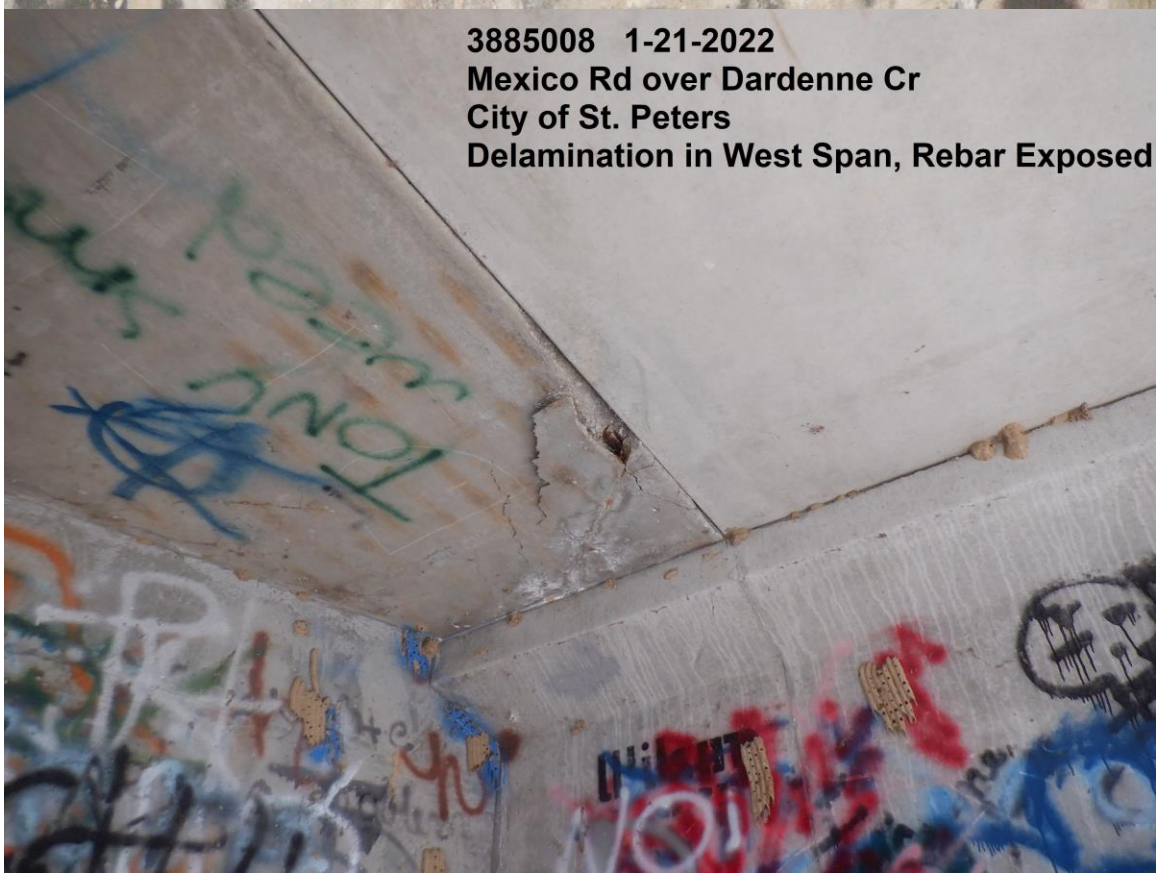
Rating Comments
(DOLEJC, 01/27/2020)--NO SCOUR OBSERVED

County : ST. CHARLES **District :** SL **Class :** NONSTATBR **Bridge :** 3885008 1 **Federal ID :** 23080

Work Comments :

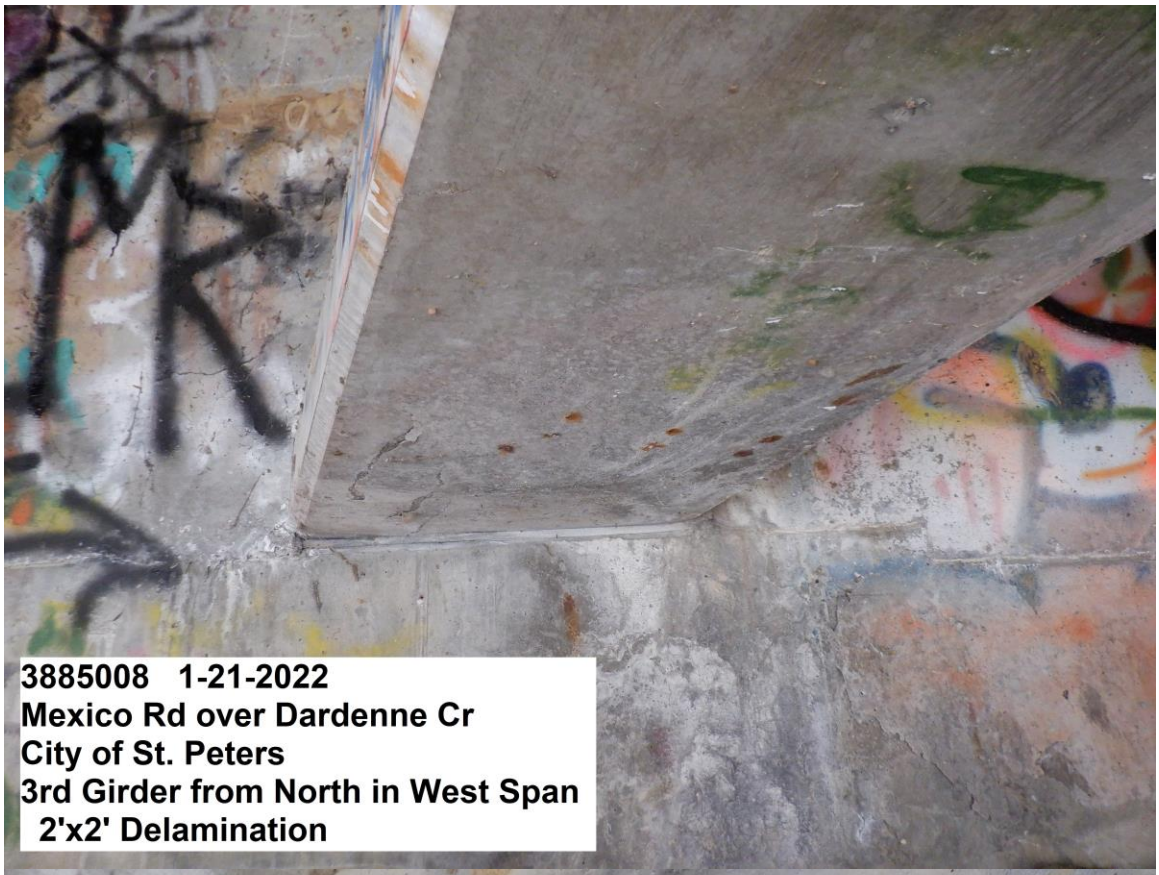
(BURKEC, 01/20/2012)--SEAL APPROACH JOINTS W/ HOT POUR. NW WING CRACKED AND FRACTURED AT ABUTMENT / SIDEWALK INTERFACE.
(DOLEJC, 01/16/2018)--SEAL DECK AND BARRIERS (I.E. SILANE)
(DOLEJC, 01/16/2018)--N SIDEWALK SETTLING - REPAIR @ BOTH ENDS
(DOLEJC, 01/16/2018)--CONC REPAIR AT W END APPR SLAB
(DOLEJC, 01/16/2018)--CONSIDER EPOXY POLYMER DECK OVERLAY FOR PRESERVATION
(DOLEJC, 01/27/2020)--CHIP AND EPOXY SEAL SPALLED P/C PANEL IN W SPAN
(DOLEJC, 01/27/2020)--REPAIR APPROACH SETTLEMENT
(DOLEJC, 01/27/2020)--REPAIR EROSION @ NW QUADRANT WING/SLOPE AND SIDEWALK. LARGE VOIDS UNDER WING AND SLOPE PROTECTION
(DOLEJC, 01/27/2020)--ADDRESS HEAVY ENCASEMENT LEACHING AT E ABUTMENT


3885008 1-21-2022
Mexico Rd over Dardenne Cr
City of St. Peters
Delaminations in West Encasement


3885008 1-21-2022
Mexico Rd over Dardenne Cr
City of St. Peters
Delamination in West Span, Rebar Exposed


3885008 1-21-2022
Mexico Rd over Dardenne Cr
City of St. Peters
Spall at West Encasement,
Rebar Exposed


3885008 1-21-2022
Mexico Rd over Dardenne Cr
City of St. Peters
3rd Girder from North in West Span
2'x2' Delamination


3885008 1-21-2022
Mexico Rd over Dardenne Cr
City of St. Peters
3rd Girder from North in West Span
2'x2' Delamination

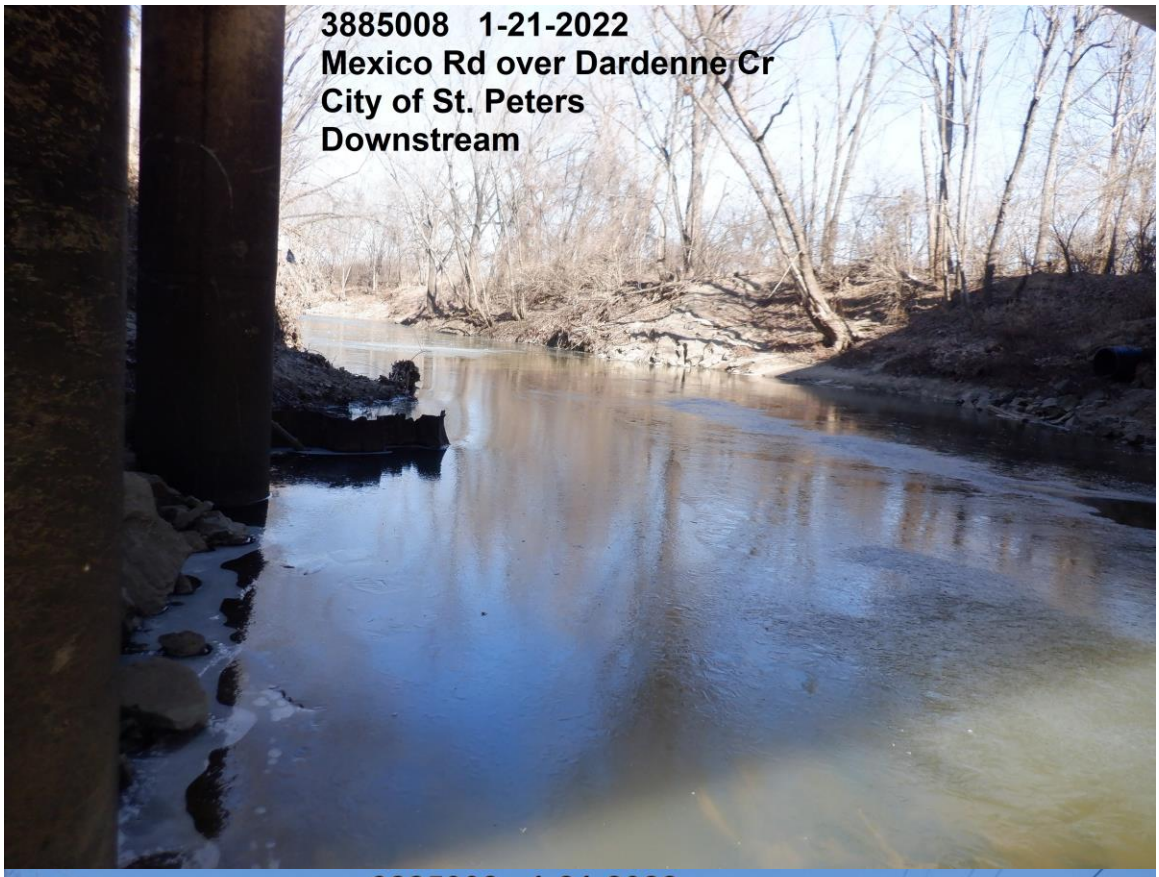

3885008 1-21-2022
Mexico Rd over Dardenne Cr
City of St. Peters
3rd Girder from North in West Span
2'x2' Delamination


3885008 1-21-2022
Mexico Rd over Dardenne Cr
City of St. Peters
Void at NW with Exposed Pile

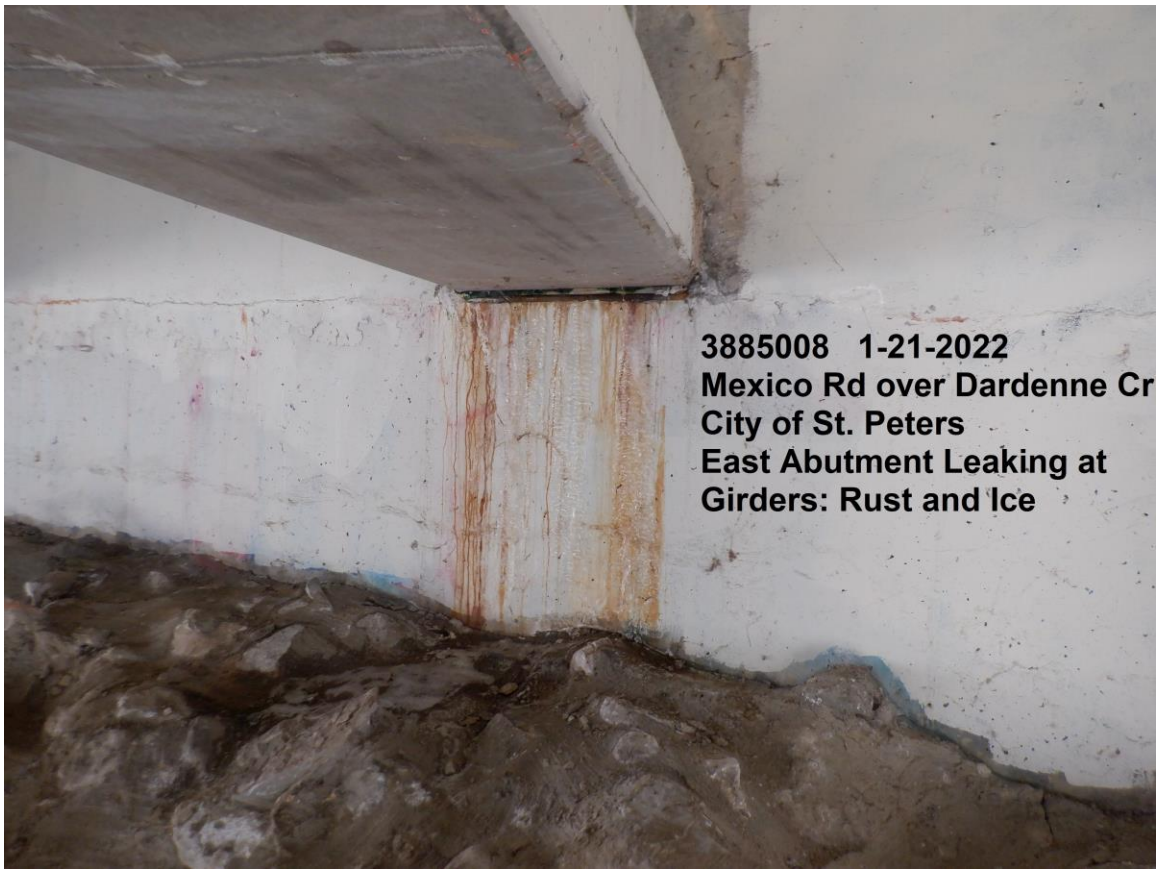

3885008 1-21-2022
Mexico Rd over Dardenne Cr
City of St. Peters
Void at NW Quad - Exposed Pile


3885008 1-21-2022
Mexico Rd over Dardenne Cr
City of St. Peters
NW Wall Spalls, Rebar Exposed


3885008 1-21-2022
Mexico Rd over Dardenne Cr
City of St. Peters
Upstream


3885008 1-21-2022
Mexico Rd over Dardenne Cr
City of St. Peters
Downstream


3885008 1-21-2022
Mexico Rd over Dardenne Cr
City of St. Peters
Deck Facing East


3885008 1-21-2022
Mexico Rd over Dardenne Cr
City of St. Peters
East Abutment Leaking at
Girders: Rust and Ice

APPENDIX F

20TTAP-04 BEAP Report St. Charles 3885008

Mexico Rd at Dardenne Creek Bridge

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HORNER SHIFRIN

THE POWER HOUSE AT UNION STATION ● 401 S. 18th ST., STE. 400 ● SAINT LOUIS, MISSOURI 63103-2296
314-531-4321 ● FAX 844-339-2910 ● www.HornerShifrin.com

August 16, 2019

Mr. Jamey Laughlin
Offsystems Plans Reviewer
MoDOT-Bridge Division

Subject: 20TTAP-04 BEAP St. Charles County 3885008 Mexico Road over Dardenne Creek

Dear Mr. Laughlin,

Horner & Shifrin has completed the BEAP study for this project which included an evaluation of the condition of the existing 3-span bridge, recommendations for repairs and a construction cost estimate.

The existing structure is a (75'-75'-75') precast prestressed concrete I-girder bridge with integral end bents on steel piles. The bridge also crosses a trail and is adjacent to a newer steel truss trail bridge, located just upstream. The approach roadway is asphalt except the NW quadrant is concrete. Original plans show concrete approaches. There is no overlay on the bridge, so does not appear that the asphalt is an overlay.

Most of the bridge is in good condition with exceptions noted below:

1. The northwest approach is missing 8' of curb
2. Both sidewalk approaches have settled, leading to concrete deterioration at the west approach and ground erosion at the east approach.
3. There is heaving asphalt on the west approach along the sidewalk.
4. The joint between the east approach and end bent has failed, leading to water intrusion.
5. There is vegetation encroaching on the fence.
6. The fence has surface rust throughout.
7. Some slab drains are clogged.
8. The drainage systems outlet onto the intermediate bent, one slab drain to drainage system pipe is loose and has vegetation growing.
9. There is erosion under the first slab drain west of the east intermediate bent, north side.

Based on the findings, the bridge could be repaired to extend its life. At this time, recommendations include:

1. Seal the deck, sidewalk and 12" up the face of barrier curbs with epoxy polymer overlay.
2. Cleanout the slab drainage system and extend to ground.
3. Repair approach pavement
4. Replace settled sidewalk, approximately 40' total length.
5. Trim vegetation at least 5' from fence, or to right-of-way line.
6. Replace chainlink fence, re-using posts.
7. Place rip-rap along eroded areas on spill slopes and under slab drains.

The estimated cost of the repairs is $105,000 The construction cost estimate is in 2019 dollars and includes roadway items. It is recommended to add 20% contingency for budgeting. The estimate does not include design or construction inspection.

Attachments with location, photos and cost estimate breakdown follow.

Please contact me at 314-335-8637 or tplohman@hornershifrin.com with any questions.

Sincerely,

Tom Lohman, PE
Assistant Business Unit Leader – Structural Bridge
Attachments

Location of Bridge No. 3885008, Mexico Road over Dardenne Creek, St. Peters, MO

South Elevation	

Northwest approach curb missing 8 ft	

West sidewalk settled 2" at wing tip, leading to stormwater over side of wing causing concrete deterioration	

Concrete deterioration, northwest wing	

Northwest wing deterioration	

West Roadway approach pavement is half concrete half asphalt, concrete in need of 40 sf repairs	

Vegetation encroaching fence	
Deck in typically good condition	

Chainlink fence has surface rust	
Clogged slab drain	

Heaving asphalt along northeast approach	

East sidewalk approach is settling	

	
Erosion under first slab drain west of east intermediate bent	

Erosion, NE quadrant	
East abutment leaking	

South drainage system drain connection is loose, has vegetation, outlet dumping on intermediate bent	

East asphalt approach at end bent is failing, leading to leaking	

HORNER SHIFRIN	Subject:	Bridge Cost Estimate - Mexico Road Bridge Repairs		
	Job No:	1527206	Page:	
	Calc:	TPL	Date:	8/13/2019
	Chk:	MAB	Date:	8/14/2019
	Bkchk:	TPL	Date:	8/14/2019

Scope **Epoxy Polymer Overlay**
Repair approach pavement
Hot pour joint between bridge and approaches
Repair sidewalk
Remove vegetation
Clean & extend drainage system
Erosion damage repair
Replace fence fabric

Item Description	Units	Unit Cost	Estim. Quantity	Total Estim. Cost
Epoxy Polymer Overlay	sq. yd.	$34	1617	$54,970
Repair Approach Pavement / Hot Pour Joint	lump sum	$5,000	1	$5,000
Replace sidewalk	sq. ft.	$25	240	$6,000
Extend and repair drainage system	lump sum	$5,000	1	$5,000
Clean drainage system	lump sum	$2,000	1	$2,000
Rip-rap	lump sum	$2,000	1	$2,000
Replace chainlink fence fabric	lump sum	$5,000	1	$5,000
Mobilization	lump sum	$7,500	1	$7,500
Traffic Control	lump sum	$8,000	1	$8,000
			Subtotal =	$95,470

misc. pay items =	0%	$0
staging =	10%	$9,547
tight site access =	0%	$0
horizontal curve =	0%	$0
earthquake =	0%	$0
early completion =	0%	$0
Total =		$105,016

Preliminary Cost Estimate = $105,000

APPENDIX G
AFFIDAVIT ENROLLMENT IN FEDERAL WORK AUTHORIZATION PROGRAM

STATE OF _____

COUNTY OF _____

AFFIDAVIT

(as required by Section 285.530, Revised Statutes of Missouri)

As used in this Affidavit, the following terms shall have the following meanings:

EMPLOYEE:
Any person performing work or service of any kind or character for hire within the State of Missouri.

FEDERAL WORK AUTHORIZATION PROGRAM:
Any of the electronic verification of work authorization programs operated by the United States Department of Homeland Security or an equivalent federal work authorization program operated by the United States Department of Homeland Security to verify information of newly hired employees, under the Immigration Reform and Control Act of 1986 (IRCA), P.L. 99-603.

KNOWINGLY:
A person acts knowingly or with knowledge,
(a) with respect to the person's conduct or to attendant circumstances when the person is aware of the nature of the person's conduct or that those circumstances exist; or
(b) with respect to a result of the person's conduct when the person is aware that the person's conduct is practically certain to cause that result.

UNAUTHORIZED ALIEN:
An alien who does not have the legal right or authorization under federal law to work in the United States, as defined in 8 U.S.C. 1324a(h)(3).

BEFORE ME, the undersigned authority, personally appeared _____, who, being duly sworn, states on his oath or affirmation as follows:

1. My name is _____

and I am currently the _____

of _____ (hereinafter "Contractor"),

whose business address is _____, and I am authorized to make this Affidavit.

2. I am of sound mind and capable of making this Affidavit and am personally acquainted with the facts stated herein.

3. Contractor is enrolled in and participates in a federal work authorization program with respect to the employees working in connection with the following services contracted between Contractor and the City of St Peters.

4. Contractor does not knowingly employ any person who is an unauthorized alien in connection with the contracted services set forth above.

5. Attached hereto is documentation affirming Contractor's enrollment and participation in a federal work authorization program with respect to the employees working in connection with the contracted services. Further, Affiant saith not.

_____

[*SIGNATURE*]

_____

[printed name], Affiant

Subscribed and sworn to before me this _____ day of _____ , _____