STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
16 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0016

Janet T. Mills
GOVERNOR

Bruce A. Van Note
COMMISSIONER

June 9, 2025

Subject: UV Cured in Place Pipe Liner
WIN: 023683.00
Location: **Mexico**
Amendment No. 2

Dear Sir/Ms.:

In the Bid Book:

REMOVE pages 50 - 54, "**SPECIAL PROVISION, SECTION 603, UV Cured in Place Pipe Liner**" and **REPLACE** with the attached revised "SPECIAL PROVISION, SECTION 603, UV Cured in Place Pipe Liner", 5 pages with revised header, dated June 9, 2025.

The following questions have been received:

Question: Will the state accept any alternative lining methods such as CIPP using styrene or non-styrene resin?

Response: No, refer to the Special Provision Section 603 on page 50 of the bid book.

Question: Have these pipes been CCTV and cleaned? If so, when was this completed and by whom? Can videos/CCTV logs be provided?

Response: Yes, they were CCTV 3yrs ago and not cleaned. Videos can be viewed at the following link
https://mainedot.files.com/f/4c1a5b770790214b

Question: Does the bidder need to be prequalified for this project before the bid date?

Response: No, refer to Special Provision Section 103 on page 37 of the bid book.

Question: Can the state provide manhole depths for the segments to be lined?

Response: The basins are anywhere from 4ft to 6ft deep with a few at 10ft deep.

Question: Who is responsible for raising buried structures?

Response: MDOT

Question: It appears that there is a steady flow coming through the lines to be rehabilitated. Does the state know if there is active infiltration in these segments? If so, this could affect the ability of lining the segments with UV.

Response: The Department is not aware of any active infiltration. The Contractor shall clear, clean and prepare the existing pipe(s) in a manner conforming to the recommendations of the liner manufacturer/producer or supplier of the methodology to be used. In the absence of such recommendations, the Contractor shall submit his/her proposed method for cleaning and preparing the host pipe for the Resident's review and acceptance.

Question: Can maps for the outfalls be provided?

Response: There are no outfalls being repaired, all CIPP will be staying within the system.

Question: Would you be able to provide the Maine UV CIPP standard for UV?

Response: Refer to Special Provision Section 603 UV Culvert Slip line starting on page 50 of the bid book.

Question: Will the EIC need a field office for this project?

Response: The Department will not supply and does not require a field office.

Consider these changes and information prior to submitting your bid on **June 11, 2025.**

Sincerely,

George M. A. Macdougall P.E.
Contracts & Specifications Engineer

SPECIAL PROVISION

SECTION 603

UV CURED IN PLACE PIPE LINER

Description

The Work consists of furnishing all labor, tools, materials, equipment, and supervision for installation of the UV Cured in Place Culvert Lining. The Work also includes, but is not limited to inspection of the pipe, design of the pipe liner, submittals, cleaning the pipe, installation of a pre-liner and any other work necessary to complete the UV cured-in-place pipe (CIPP) liner.

Variations from Materials Specified

Whenever and wherever items have been identified by describing a proprietary product, such identification is intended to be descriptive, but not restrictive, and is used to indicate the quality and characteristics of products that are satisfactory. Bids shall be considered as offering the item specified in the Invitation for Bid. The Department will consider all alternates submitted by the Contractor, but is not bound to accept any which, in its opinion, is not in the Department's best interest and are determined by the Department not to be of equal value in all material respects to the proprietary items specified. The evaluation of and determination as to equality of the product offered shall be the responsibility of the Department and will be based on information furnished by the Contractor, as well as information reasonably available to the purchasing activity.

Quality and Standards

Materials and manufactured products incorporated into the work shall be new unless otherwise specified, free from defect, and in conformity with the contract. When material is fabricated or treated with another material or where any combination of materials is assembled to form a finished product, any or all of which are covered by specifications, the Department may reject the finished product if any of the components do not comply with the specifications. The Department may reject materials not conforming to the Specifications at any time, and the Contractor shall remove them immediately from the project site unless otherwise instructed by the Department. The Contractor shall not store, or use rejected materials on any Department project.

If there is no applicable standard set forth in this contract for particular Work, then the Contractor shall perform that Work in accordance with industry standards prevailing at the time of bid.

If the Department determines that Work is non-conforming, the Contractor shall remove, replace, or otherwise correct all unacceptable work as directed by the Department at the expense of the Contractor, without cost or liability to the Department.

Submittals

The Contractor shall submit assembly drawings, design calculations pipe insertion method, cleaning methodology, manufacturers' specifications and product data of the fabric tube, resin, end seals and UV curing system.

The Contractor shall field measure the existing pipe and shall immediately notify the Department if the proposed pipe may not fit. The Contractor is responsible for field measurement of the existing culvert pipe to ensure proper fit of the liner. No payment will be made for pipe that does not fit because of failure to verify field conditions

The Contractor shall not be relieved of responsibility for any deviation from the requirements of the specifications unless the contractor has specifically informed the Department in writing of such deviation at the time of submission and the Department has given written approval to the specific deviation.

The Contractor shall not be relieved of responsibility for errors or omissions. No portion of the work shall be commenced until the Department has approved the submittals.

The Contractor shall submit an electronic pdf file or two (2) copies of submittals to the Department for review at least fifteen (15) days prior to incorporation into the work. Submittals shall be approved prior to incorporation into the work.

The Contractor shall provide a Schedule of Work 3 days prior to the preconstruction meeting which shall include:

- The start of physical work onsite.
- The placement of cofferdams.
- The Installation of the UV liner
- The removal of coffer dams
- Expected date of completion.

Delivery, Storage, and Handling

The Contractor shall Store materials off the ground, protected from the weather, deliver products in manufacturers' original containers, dry, undamaged, with seals and labels intact.

Warranty

The Contractor shall warrant all Work for a period of one (1) year from the date of the acceptance of work by the Maine Department of Transportation).

Materials

Glass Reinforced Plastic (GRP) will not be considered an equal alternate option.

The CIPP System shall contain no intermediate or encapsulated elastomeric layer(s). No material(s) shall be included in the tube's construction that may cause delamination (or in-plane shear) in the cured CIPP product. No dry or unsaturated layers shall be visually or otherwise evident.

The CIPP System shall be capable of conforming to the irregularities normally found in buried pipes requiring renewal such as offset joints, fractured pipe, and otherwise disfigured pipe sections. It shall be able to stretch to fit these localized and/or global irregular pipe sections; and, when noted in the plans for the subject pipe reaches, negotiate bends.

Fabric Tube:

The tube's construction shall consist of two or more layers of nonwoven or woven glass fibers capable of transporting the proposed resin system while withstanding the rigors of the installation and hardening processes. The tube shall be compatible with the resin system to be used on this project.

The material shall be able to stretch to fit any irregular pipe sections and negotiate bends.

The tube should be fabricated to a size that, when installed following the CIPP System Manufacturer's written instructions, will tightly fit the internal circumference and the length of the host pipe structure while simultaneously minimizing the creation of any wrinkles or fins on the interior wall surface.

The tube shall be constructed to be uniform in thickness around its finished circumference; and when subjected to the Manufacturer's stated installation pressures will meet or exceed the minimum finished wall thickness calculated for the subject reach of pipe.

Any plastic film attached to the tube on what will become the interior wall of the finished CIPP shall be compatible with the resin system used, translucent enough that the resin is clearly visible, and shall be firmly bonded to the felt or other material when it is to become a permanent part of the finished CIPP. It shall also be formulated to create an impermeable barrier or membrane against the leaching of any volatile components of the resin.

The external plastic film shall also provide a barrier to ambient light UV exposure and be robust enough to survive the rigors of the sliding of the tube into its final position in the pipe to be renewed. The tube shall have an allowance for the required circumferential and longitudinal stretching during installation.

Resin System:

The resin system shall be a corrosion resistant polyester, vinyl ester, or epoxy and catalyst system that, when properly cured meets the minimum requirements given herein or those that are to be utilized in the design of the CIPP System for this project. Thixotropic agents that do not interfere with visual inspection may be added for viscosity control. Resins may contain pigments, dyes, or colors that do not interfere with visual inspection of the resin impregnated CIPP or its required properties.

Hydrophilic End Seals:

The ends of the installed CIPP entering and exiting the structure on this project shall be sealed with a preformed neoprene rubber material that possesses significant expansive properties that are activated by the presence of any water at the Host pipe-CIPP interface to provide for a watertight seal. Hydrophilic caulks, hydraulic cements and quick-set cement products are not acceptable for this application. Acceptable materials shall be those products that have a demonstrated performance for the environmental service conditions of the host pipe; and are capable of undergoing alternate wet and dry ground conditions without deleterious effects.

Installation:

The Cured-In-Place Pipe liner system (CIPP) shall be installed in accordance with Manufacturer's specifications, The Maine Department of Transportation's Standard Specifications March 2020 Edition, state, federal and local laws, rules, and regulations.

The Cured-In-Place Pipe liner system shall be designed, fabricated, and installed in such a manner as to result in a maintained full contact tight fit to the internal circumference of the host pipe for its entire length. The installation shall adhere to the cure times and temperatures stipulated in the manufacturer's recommended installation and cure specifications and the finished product shall be free of de-lamination, bubbling, rippling or other signs of installation failure.

Cured-In-Place Pipe liner installation must be accomplished without significant liner twisting or stretching during installation. At no time shall the pulling force for liner installation exceed that established by the liner manufacturer.

All Cured-In-Place Pipe installations shall be performed in the dry.

The Contractor shall contact utilities prior to commencing any work that may conflict with existing utilities, and shall coordinate with the utility company(ies) and the Resident for any adjustments deemed necessary to complete the work.

In the event the selected method of rehabilitation requires disturbing existing surfaces, these surfaces shall be restored in kind to original pre-construction conditions after rehabilitation operations have been completed and the cost thereof shall be incidental to the pipe rehabilitation item.

The Contractor shall obtain all required OSHA confined space entry permits where required by the Contractor's operations and the scope of work in the Contract.

The Contractor shall clear, clean and prepare the existing pipe(s) in a manner conforming to the recommendations of the liner manufacturer/producer or supplier of the methodology to be used. In the absence of such recommendations, the Contractor shall submit his/her proposed method for cleaning and preparing the host pipe for the Resident's review and acceptance.

If any part of the CIPP material becomes damaged before or during insertion, it shall be repaired or replaced at the Contractor's expense before the work can proceed.

Finished CIPP:

The finished CIPP shall be continuous over the entire reach and shall be free of any defects. The layers of the finished CIPP shall be uniformly bonded. It shall not be possible to separate any two layers with a probe or point of a knife blade so that the layers separate cleanly or such that the knife blade moves freely between the layers. All layers, after cure, shall form one homogeneous structural pipe wall with no obvious indication that a part of tube was left unsaturated by resin. The CIPP shall fit tightly to the internal circumference of the existing pipe.

Hardened "lifts" in the finished CIPP are unacceptable and must be repaired in accordance with the CIPP Manufacturer's recommendation for the type of CIPP System that was used. All other defects found, cosmetic or otherwise, shall be dealt with following the industry accepted standard practices.

Finishing at Ends

Final trimming of the CIPP at any access point shall be done in such a manner as to provide a long-term mechanical connection between the CIPP and the host pipe.

Method of Measurement

Measurement of UV Cured in Place Pipe Liner shall be measured by the Linear Foot complete and accepted

Basis of Payment

Payment for installation of UV Cured-in-Place Pipe shall be paid on a linear foot basis in accordance with the Unit Prices contained in the Schedule of Items. Payment shall include the inspection, design, submittals, cleaning, installation of a pre-liner, the CIPP lining, coffer dams, installation/maintenance/removal of coffer dams, dewatering/infiltration control, spill prevention plan, fuel, potable water, hydrophilic end seals, labor, equipment, materials, tools, safety, dust/erosion control, site restoration, and all incidentals as required to complete the Work.

Payment will be made under:

Item	Pay Unit
603.1591 15” culvert liner	Linear Foot
603.1791 18” culvert liner	Linear Foot
603.1991 24” culvert liner	Linear Foot
603.2095 36” CIPP pipe liner	Linear Foot