Invitation to Bid ITB: #2025-002

Stonington Department of Public Works Rehabilitation of White Rock Road Bridge #04182



Issue Date: April 10, 2025 Bid Deadline: May 08, 2025 @ 2:00pm

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LEGAL NOTICE TO BID

TOWN OF STONINGTON, CONNECTICUT

INVITATION TO BID FOR REHABILITATION OF WHITE ROCK ROAD BRIDGE #04182 ITB: #2025-002 April 10, 2025

The Town of Stonington is accepting bids for the "Rehabilitation of White Rock Road Bridge #04182" project. Sealed Bids will be received by Mr. James Sullivan at the Stonington Town Hall, 3rd Floor Finance Office, 152 Elm Street, Stonington, Connecticut 06378, until **2:00 pm local time on Thursday, May 08, 2025** at which time the Bids received will be opened publicly, and read aloud. Bids submitted after this time will not be accepted. The Work is estimated to exceed \$100,000 and therefore *will* require State of Connecticut Prevailing Wage Rates for onsite labor. Each bidder must submit a sealed envelope, the outside of which must be clearly marked "**ITB:#2025-002 ENCLOSED – REHABILITATION OF WHITE ROCK ROAD BRIDGE #04182," and include the bidder's company name and address.**

The full Invitation to Bid, and bidding documents, may be obtained on the Town's website, under <u>http://www.stonington-ct.gov/bids-rfps</u> or on the CT DAS contracting portal.

Any addenda to the ITB will be posted to the Town's website along with the CT DAS contracting portal. All firms are responsible for checking for new addenda.

Any questions regarding this bid should be emailed to the Engineer, Keegan Elder of WMC Engineers, via email at <u>kelder@wmcengineers.com</u> no later than **3:00 PM on Thursday, April 24, 2025.** James Sullivan, Director of Finance, shall be cc'd on any requests for information at jsullivan@stonington-ct.gov.

Bids will be compared on the basis of the quantities and units and lump sum prices. Bids will be compared and evaluated and awarded on the basis of the Total Bid to the lowest responsible and qualified bidder.

The successful Bidder is required to comply with all provisions of the Civil Rights Act of 1964, the Equal Opportunity Act of 1972, Executive Orders #3, No. 17, 11246, 11375 and 11478. Contractors shall comply with State Statutes concerning Employment and Labor Practices, if applicable, and Section 31-53 of the Connecticut Statutes, as amended (Prevailing Wages).

The Town of Stonington and its Agencies and Commissions is an Affirmative Action/Equal Opportunity employer. Respondents must ensure that employees and applicants for employment are not discriminated against because of their race, color, religious creed, age, marital status, national origin, ancestry, sex, gender identity or expression, genetic information, veteran status intellectual disability, mental disability or physical disability, including, but not limited to, blindness, unless it is shown by such Respondent that such disability prevents performance of the work involved. The Town of Stonington complies with all Federal, State, and Local laws governing nondiscrimination in employment in every location in the Town has facilities. This policy applies to all terms and conditions of employment, including recruiting, hiring, placement,

promotion, termination, layoff, recall, transfer, leaves of absence, compensation and training. Respondents to this ITB agree and warrant that in the performance of the work contemplated under this ITB they will not discriminate or permit discrimination against any person or group of persons. Respondents agree to provide the State of Connecticut Commission on Human Rights and Opportunities with such information requested by the Commission concerning employment practices and procedures.

A completed Bid Form and attachments listed therein must be submitted with the Bid. Bid security shall be furnished in accordance with the Instructions to Bidders. The Bid Security shall be a proposal guaranty bond made in favor of the Town executed by a surety company authorized to do business in the State of Connecticut. Bid Security shall be made payable to Town of Stonington, Connecticut. Bids submitted without Bid Security will not be considered. No Bid may be withdrawn for 60 days after receipt of Bids unless released by the Owner.

Any bidder that qualifies for the "LOCAL VENDOR PREFERENCE" must fill out a "Town-Based Business Affidavit Form" signed by an authorized representative of the bidder at the time of bid submittal in order to be considered for this preference. Failure to submit a Town Based Business Affidavit on the form provided by the Town of Stonington will result in disqualification of town-based business status and loss of any preference given to a town-based business on the part of such bidder as to its bid. The form is available on the Town's website at <u>www.stonington-ct.gov</u> or can be obtained by contacting the Finance Office at 860-535-5070.

The Town of Stonington reserves the right to amend or terminate this Invitation to Bid, to reject any or all bidders, to waive and technical or legal deficiencies, to request additional information, to waive any informalities or non- material deficiencies in a response, to determine qualifications exclusively and finally in its sole discretion, to delete such items as it deems necessary from these proposals, to select any firm based on any combination of factors, and the Town's best interests, to negotiate with any firm submitting a bid for different or additional terms, and to take any and all other action that, in the Town's sole judgment, will be in its best interests. Bidders are directed to be certain that they understand the terms and conditions specified in this bid. All exceptions of the bidder to the terms and specifications of this bid shall be made in writing and submitted in full with the Bid Form. It will be expected that all remaining terms and conditions expressed herein are acceptable and shall govern any resulting contract

The Town of Stonington is an:

AFFIRMATIVE ACTION/EQUAL OPPORTUNITY EMPLOYER MBE/WBE AND SBE's are encouraged to bid

END OF NOTICE TO BID

TOWN OF STONINGTON, CONNECTICUT

INVITATION TO BID FOR REHABILITATION OF WHITE ROCK ROAD BRIDGE #04182 ITB: #2025-002

<u>TENTATIVE TIMELINE OF THE INVITATION TO BID PROCESS-KEY</u> <u>DATES</u>

ITB Issue Date: April 10, 2025

Pre-bid conference and walkthrough: April 22, 2025 10:am

Final Date to Submit Questions: April 24, 2025 3:00 p.m.

Final Posting of Responses to Questions: May 1, 2025 4:00 p.m.

Proposal Closing Date/Time: May 8, 2025 2:00 p.m.

Proposal Closing Place: Stonington Town Hall, 152 Elm Street, Stonington, CT 06378.

Proposal Opening Date/Time: May 8, 2025, at 2:00 p.m.

Proposal Opening Place: Finance Department, 152 Elm Street, Stonington, CT 06378.

I. <u>SCOPE OF WORK</u>

Description of the Work: The scope of work includes the rehabilitation of the White Rock Road Bridge #04182 in accordance with the following instructions, directions, and specifications:

Section 1.07 – Legal Relation and Responsibilities
Section 1.08 – Prosecution and Progress
Item #0219011A – Sedimentation Control at Catch Basin
Item #0406194A – Joint and Crack Sealing of Bituminous Concrete Pavement
Item #0520036A – Asphaltic Plug Expansion Joint System
Item #0520041A – Preformed Joint Seal
Item #0707009A – Membrane Waterproofing (Cold Liquid Elastomeric)
Item #0971001A – Maintenance and Protection of Traffic
Appendix A – Plan for the Rehabilitation of White Rock Road Bridge #04182

The Work is expected to exceed \$100,000 and *will* require State of Connecticut Prevailing Wage Rates for all on-site labor.

II. QUALIFICATION OF CONTRACTORS

All Bidders must submit a Contractors Qualification Statement: AIA Document A305, with the bid.

III. INQUIRIES

All inquiries relative to the conditions and specifications listed herein as well as clarification of any information contained or referenced in this ITB must be submitted to the project engineer, Keegan Elder of WMC Engineers, via email at kelder@wmcengineers.com no later than **3:00 PM on April 24, 2025,** with copy to James Sullivan, Director of Finance, Town of Stonington, at jsullivan@stonington-ct.gov.

The Town will answer all relevant written questions by issuing one or more addenda, which shall become part of this INVITATION TO BID.

IV. <u>SUBMISSION OF PROPOSALS</u>

General Requirements: Respondents are asked to provide Proposals for the scope of work in accordance with all the terms and specification contained herein.

Respondents shall submit one (1) original and two (2) hard copies and one (1) electronic copy (a compiled Adobe PDF file) of their submittals.

Proposals shall contain the following at a minimum:

- 1. Contractors Qualification Form AIA A305.
- 2. A list of projects (3 minimum) with similar scope shall be provided, along with contacts identified for references.
- 3. Exhibits:
 - A) Proposer's Legal Status Disclosure Form
 - B) Proposer's Non-Collusion Affidavit Form
 - C) Proposer's Statement of References Form
 - D) Required Disclosures
 - E) Affirmative Action Affidavit
 - F) Bid Form
 - G) Proforma COI with Insurance Limits specified in Exhibit G

V. <u>SELECTION PROCESS, CRITERIA AND AWARD</u>

Unless all bids are rejected, The Town shall award the bid to the entity it determines to be the lowest responsible bidder. The lowest responsible bidder shall be defined as that person or firm whose bid to perform the work or provide the product(s) specified is lowest, who is qualified and competent to do the work or provide the product(s) specified, whose past performance of work is satisfactory to the Town, and whose bid documents comply with the

procedural requirements stated herein or in any addenda. The award process may also include additional considerations such as the information provided on the Bid Form, the bidder's qualifications, and the bidder's perceived ability to fulfill its obligations as prescribed by these specifications. The Town may make such investigations as it deems necessary to determine the ability of the bidder to perform the work, and the bidder shall furnish to the Town all such information and data for this purpose as the Town may request. The Town reserves the right to reject any or all bids if evidence submitted by or investigation of the bidder fails to satisfy the Town that such bidder is properly qualified to carry out the obligations of the contract resulting from the bid and to complete the work or deliver the item(s) contemplated therein.

The Town reserves the right to reject any bid by a joint venture. Should the Town, at its sole discretion, choose to award to a joint venture each entity to such joint venture shall satisfy the Town's requirements as stated herein and the responsibilities of each entity in the joint venture shall be clearly identified.

The Town will not accept the bid of a bidder whose firm, or any principal of the firm, is in default on the payment of taxes, licenses or other monies due the Town. As used in this section, a "principal" shall mean an individual who is a director, an officer, an owner, a limited partner or a general partner. As used in this section, "in default on the payment of taxes" shall mean the failure to pay taxes by the date such taxes are due and payable or the failure to be current with respect to a delinquent taxes payment schedule as set forth in a written agreement with the Revenue Collector.

The low bid will be determined by adding the totals of the various quantities for each item multiplied by the bid unit price. In the event of a math error or a discrepancy between the unit price and the total in the far right hand column for each item, the Town shall select the figure that is in the best interests of the Town and disregard the other.

Notice of acceptance of bid will be given to the successful bidder by the Town by mail to the bidders' address as stated on the Bid Form. If, within ten (10) calendar days immediately after receipt of Notice of Acceptance of Bid, the successful bidder shall fail or refuse to deliver the Performance and Labor & Material Payment Bonds properly executed, Bidder's Bid and Acceptance, at the option of the Town, shall become null and void. The Bidder shall forfeit to the Town, as liquidated damages for such failure or refusal, the Bid Bond or certified check accompanying this Bid, and the Town may proceed to accept another of the Bids.

Following award by the Town and the signing of a Contract, the Contractor shall start work under the Contract and shall continue to completion with all practical dispatch and regularity. Work shall be started and completed within times which Contractor has stated in the Contract.

Proposals will be evaluated on their qualifications and value by the Director of Public Works or his/her appointees using the following criteria:

- 1. Bid proposal adherence to technical specifications.
- 2. Ability to deliver goods and services in a timely fashion.
- 3. Proposed project schedule.

- 4. Value of proposed fees.
- 5. Compliance/completion with/of submission requirements noted above in Section IV.

VI. GENERAL TERMS AND CONDITIONS

- 1. The Town reserves the right to reject any and all proposals, to waive any informality, to request interviews of proposers prior to award and to select and negotiate the proposed services in the best interest of the Town.
- 2. The Town reserves the right to accept all or part of any proposal, and to negotiate a contract for services and cost with the selected firm or team.
- 3. The Bids from all bidders shall remain in effect for a period of one hundred and eighty (180) calendar days from the date of the bid opening, unless written consent is provided by the Town to withdraw. Once a contract award has been made all of the Contractor's bid prices shall be held firm throughout the term of the contract and will be construed as all-inclusive. There shall not be any unilateral imposition of additional surcharges for fuel or deliveries.
- 4. Unless otherwise stated, Payment Requests are to be submitted no more than once per month. Each Payment Request shall be signed by the Selected firm and shall constitute the Selected firm's representation that quantity of work has reached the level for which payment is requested, and that the Selected firm knows no reason why payment should not be made as requested. The Payment Request shall include an itemization of all services provided, including unit list price, net price, extensions and total amount due. The Town shall approve by signature the amount that, in the opinion of the Town, is properly owing to the Selected firm.
- 5. Unless otherwise stated, payment will be made within thirty (30) days of the completion of the work, in an acceptable fashion, to the Town and receipt of invoice, whichever is later.
- 6. Town is exempt from all sales and Federal excise taxes.
- 7. None of the services covered by the contract shall be assigned in full or in part, or subcontracted without the prior approval of the Town.
- 8. Unless otherwise specified all costs listed are firm for the term of the contract.
- 9. Proposal shall also mean quotation, bid, offer, qualification/experience statement, and services. Proposers shall also mean vendors, offerors, bidders, or any person or firm responding to the Invitation to Bid.
- 10. All contracts entered into by the Town shall be governed by the Laws of the State of Connecticut and any Town Codes or Ordinances. Any disputes shall be resolved within the venue of the State of Connecticut.

AWARD TO OTHER THAN THE APPARENT LOW BIDDER: The Town of

Stonington reserves the right to award the work to a proposer other than the one which submitted the lowest price if it deems such action to be in the best interest of the Town of Stonington.

VII. STANDARD INSTRUCTIONS TO PROPOSERS

INTRODUCTION

Interested parties should submit a proposal in accordance with the requirements and directions contained in this INVITATION TO BID. Proposers are prohibited from contacting any Town employee, officer or official concerning this INVITATION TO BID, except as set forth in Section 3, below. A proposer's failure to comply with this requirement may result in disqualification.

If there are any conflicts between the provisions of these Standard Instructions to Proposers and any other documents comprising this INVITATION TO BID, these Standard Instructions to Proposers shall prevail.

1. RIGHT TO AMEND OR TERMINATE THE INVITATION TO BID

The Town may, before or after proposal opening and in its sole discretion, clarify, modify, amend or terminate this INVITATION TO BID if the Town determines it is in the Town's best interest. Any such action shall be affected by a posting on the Town's website, <u>http://www.stonington-ct.gov/bids-rfps and/or the CT DAS Contracting Portal.</u> Each proposer is responsible for checking the Town's website and CT DAS Contracting Portal to determine if the Town has issued any addenda and, if so, to complete its proposal in accordance with the INVITATION TO BID as modified by the addenda.

2. <u>RIGHT TO TERMINATE THE CONTRACT</u>

All work done as a result of this bid shall be completed to the satisfaction of the Public Works Director. The Town reserves the right to terminate this agreement upon ten (10) calendar days written notice of failure by the Contractor to provide service to the satisfaction of the Public Works Director. If the Contractor does not start the work within time limits identified by the Town or does not prosecute the work in accordance with these specifications to the satisfaction of the Public Works Director, the Town of Stonington reserves the right to engage other Contractors and to charge the difference or extras in cost, if any, or to recover in bond.

3. <u>CONTRACTOR PERFORMANCE</u>

Failure of the Contractor to adhere to the specifications, prices, terms or conditions of its Agreement with the Town may preclude the Contractor, at the Town's sole discretion, from bidding on future Town bids, in addition to any action that the Town may take as a result of the Contractor's failure to perform.

4. <u>PROPOSAL SUBMISSION INSTRUCTIONS</u>

Proposals must be received, by the date and time noted in the INVITATION TO BID prior to the date and time the proposals are scheduled to be opened publicly. Postmarks prior to the opening date and time do **NOT** satisfy this condition. The Town will not accept submissions by e-mail or fax. Proposers are solely responsible for ensuring timely delivery. The Town will **NOT** accept late proposals.

One (1) original and two (2) hard copies, along with a digital copy of all proposal documents must be submitted in sealed, opaque envelopes clearly labeled with the proposer's name, the proposer's address, the words "**BID#2025-002 ENCLOSED** – **Rehab of White Rock Road Bridge**". The Town may decline to accept proposals submitted in unmarked envelopes that the Town opens in its normal course of business. The Town may, but shall not be required to, return such proposal documents and inform the proposer that the proposal documents may be resubmitted in a sealed envelope properly marked as described above.

Proposal fee must be submitted on the Bid Form included in this INVITATION TO BID, see **Exhibit F**. All blank spaces for proposal prices must be completed in ink or be typewritten; proposal fee must be stated in both words and figures. The person signing the Proposal Form must initial any errors, alterations or corrections on that form. Ditto marks or words such as "SAME" shall not be used in the Proposal Form.

Proposals may be withdrawn personally or in writing provided that the Town receives the withdrawal prior to the date and time the proposals are scheduled to be opened. Proposals are considered valid, and may not be withdrawn, cancelled or modified, for sixty (60) calendar days after the opening date, to give the Town sufficient time to review the proposals, investigate the proposers' qualifications, secure any required municipal approvals, and execute a binding contract with the successful proposer.

An authorized person representing the legal entity of the proposer must sign the Proposal Form and all other forms included in this INVITATION TO BID.

5. <u>OUESTIONS AND AMENDMENTS</u>

Questions concerning the process and procedures applicable to this INVITATION TO BID are to be submitted **only in writing via email** and directed **only to**:

Keegan Elder at kelder@wmcengineers.com

Proposers shall copy Mr. James. Sullivan, jsullivan@stonington-ct.gov as well.

Proposers are prohibited from contacting any Town employee, officer or official concerning this INVITATION TO BID other than the designated official noted above. A proposer's failure to comply with this requirement may result in disqualification.

The appropriate Town representative listed above must receive any questions from proposers no later than the date specified under the time line. That representative will confirm receipt of a proposer's questions by e-mail. The Town will answer all relevant written questions by issuing one or more addenda, which shall be a part of this INVITATION TO BID and the resulting Contract, containing all questions received and answers provided.

The Town will post any addenda on Town's website, <u>http://www.stonington-ct.gov/bids-rfps</u> or on the CT DAS contracting portal. Each proposer is responsible for checking the websites to determine if the Town has issued any addenda and, if so, to complete its proposal in accordance with the INVITATION TO BID as modified by the addenda.

No oral statement of the Town, including oral statements by the Town representatives listed above, shall be effective to waive, change or otherwise modify any of the provisions of this INVITATION TO BID, and no proposer shall rely on any alleged oral statement.

6. <u>ADDITIONAL INFORMATION</u>

The Town reserves the right, either before or after the opening of proposals, to ask any proposer to clarify its proposal or to submit additional information that the Town in its sole discretion deems desirable.

7. <u>COSTS FOR PREPARING PROPOSAL</u>

Each proposer's costs incurred in developing its proposal are its sole responsibility, and the Town shall have no liability for such costs.

8. <u>OWNERSHIP OF PROPOSALS</u>

All proposals submitted become the Town's property and will not be returned to proposers.

9. FREEDOM OF INFORMATION ACT

All information submitted in a proposal or in response to a request for additional information is subject to disclosure under the Connecticut Freedom of Information Act as amended and judicially interpreted. A proposer's responses may contain financial, trade secret or other data that it claims should not be public (the "Confidential Information"). A proposer must identify specifically the pages and portions of its proposal or additional information that contain the claimed Confidential Information by visibly marking all such pages and portions. Provided that the proposer cooperates with the Town as described in this section, the Town shall, to the extent permitted by law, protect from unauthorized disclosure such Confidential Information.

If the Town receives a request for a proposer's Confidential Information, it will promptly notify the proposer in writing of such request and provide the proposer with a copy of any written disclosure request. The proposer may provide written consent to the disclosure or may object to the disclosure by notifying the Town in writing to withhold disclosure of the information, identifying in the notice the basis for its objection, including the statutory exemption(s) from disclosure. The proposer shall be responsible for defending any complaint brought in connection with the nondisclosure, including but not only appearing before the Freedom of Information Commission, and providing witnesses and documents as appropriate.

10. **REQUIRED DISCLOSURES**

Each proposer must, in its <u>Required Disclosures Form</u>, see **Exhibit D**, make the disclosures set forth in that form. A proposer's acceptability based on those disclosures lies solely in the Town's discretion.

11. <u>REFERENCES</u>

Each proposer must complete and submit the <u>Proposer's Statement of References Form</u> included in this INVITATION TO BID, see **Exhibit C**.

12. LEGAL STATUS

If a proposer is a corporation, limited liability company, or other business entity that is required to register with the Connecticut Secretary of the State's Office, it must have a current registration on file with that office. The Town may, in its sole discretion, request acceptable evidence of any proposer's legal status. Each proposer must complete the <u>Proposer's Legal Status Disclosure Form</u> included in this INVITATION TO BID, see **Exhibit A**.

13. <u>PERFORMANCE SECURITY</u>

Upon award and prior to any work being performed, the Contractor shall furnish a Performance Bond and a Labor and Material Payment Bond in amounts equal to at least one hundred percent (100%) of the contract price as security for the faithful performance of the Contract, and for the payment of all persons performing labor on the project under this contract and furnishing materials, equipment and all other incidentals in connection with this contract. The Surety on such a bond shall be satisfactory to the Owner and the cost of the same shall be borne by the Contractor. Prior to the starting of any work, the bonds must be approved by the Owner and be in the Owner's hands. The bond shall be issued from a surety company either licensed or approved by the State of Connecticut Insurance Commissioner and which has an A.M. Best's rating of A-VII or better. The bond shall clearly state that on default by the Contractor the surety company shall pay all payables associated with this work that are outstanding. The form of such bonds shall be AIA Document A3123 or equal.

14. **PROPOSAL (BID) SECURITY**

Each bid must be accompanied by a bid bond duly executed by the bidder as principal and having as surety thereon a surety company approved by the Owner, in the amount of ten (10) percent of the bid. Such bid bonds will be returned to all but the three lowest bidders within thirty days after the opening of bids, and the remaining bid bonds will be returned promptly after the Owner and the accepted bidder have executed the contract; or if no award has been made within 60 days after the date of the opening of the bids, upon demand of the bidder at any time there- after, so long as he has not been notified of the acceptance of his bid. The bid bond of the successful bidder will be retained until the payment bond and performance bond have been executed and approved, after which it will be returned. These bonds shall be issued from a surety company either licensed or approved by the State of Connecticut Insurance Commissioner and which has an A.M. Best's rating of A-VII or better. The form of such bonds shall be AIA Document A3123 or equal.

15. <u>PRESUMPTION OF PROPOSER'S FULL KNOWLEDGE</u>

Each proposer is responsible for having read and understood each document in this INVITATION TO BID and any addenda issued by the Town. A proposer's failure to have reviewed all information that is part of or applicable to this INVITATION TO BID, including but not only any addenda posted on the Town's website and/or CT DAS Contracting Portal, shall in no way relieve it from any aspect of its proposal or the obligations related thereto.

Each proposer is deemed to be familiar with and is required to comply with all federal, state and local laws, regulations, ordinances, codes and orders that in any manner relate to this INVITATION TO BID or the provision or goods or performance of the work described herein.

By submitting a proposal, each proposer represents that it has thoroughly examined and become familiar with the scope of work outlined/the goods described in this INVITATION TO BID, and it is capable of performing the work/delivering/installing the goods to achieve the Town's objectives. If applicable, each proposer shall visit the site, examine the areas and thoroughly familiarize itself with all conditions of the property before preparing its proposal.

16. <u>TAX EXEMPTIONS</u>

The Town is exempt from the payment of federal excise taxes and Connecticut sales and use taxes. Exemption from State sales tax per Conn. Gen. Stat. Chapter 219, § 12-412(1). Federal Tax-Exempt number will be provided to the selected firm prior to execution of contract.

17. <u>INSURANCE</u>

The successful proposer shall, at its own expense and cost, obtain and keep in force at least the insurance listed in the Insurance Requirements that are a part of this ITB, as delineated in **Exhibit G**. The Town reserves the right to request from the successful proposer a complete, certified copy of each required insurance policy. A sample Certificate of Insurance should be submitted with bid proposal.

18. <u>AWARD CRITERIA; PRELIMINARY SELECTION; CONTRACT EXECUTION</u>

All proposals will be publicly opened and read aloud as received on the date, at the time, and at the place identified in this INVITATION TO BID. Proposers may be present at the opening.

The Town reserves the right to correct, after proposer verification, any mistake in a proposal that is a clerical error, such as a price extension, decimal point error or FOB terms. If an error exists in an extension of prices, the unit price shall prevail. In the event of a discrepancy between the price quoted in words and in figures, the words shall control.

The Town reserves the rights to accept all or any part of a proposal, reject all proposals, and waive any informalities or non-material deficiencies in a proposal. The Town also reserves the right, if applicable, to award the purchase of individual items under this INVITATION TO BID to any combination of separate proposals or proposers.

The Town will select the lowest responsible proposer, meaning that, in addition to price, due consideration will be given to factors such as a proposer's experience, references, capabilities, past performance, and other relevant criteria.

The Town will not award the proposal to any business that or person who is in arrears or in default to the Town with regard to any tax, debt, contract, security or any other obligation.

The Town will issue a Preliminary Notice of Award. The preliminary notice of award may be subject to further negotiations with the proposer. **The making of a preliminary award to a proposer does not provide the proposer with any rights and does not impose upon the Town any obligations. The Town is free to withdraw a preliminary award at any time and for any reason. A proposer** has rights, and the Town has obligations, <u>only if and when a Contract is executed by the Town</u> and the proposer.

19. <u>NONRESIDENT CONTRACTORS</u>

If the successful proposer is a "nonresident contractor" as defined in Conn. Gen. Stat. § 12- 430(7)(A) as amended, it shall comply fully with the provisions of § 12-430(7) and, prior to execution of the Contract, shall furnish the Town with proof that it is a "verified contractor" within the meaning of General Statutes Section 12-430(7) or that it has posted a bond with the Commissioner of Revenue Services in compliance with General Statutes Section 12-430(7). The successful proposer agrees to defend, indemnify, and hold harmless the Town, its employees, officers, officials, agents, volunteers and independent contractors, including any of the foregoing sued as individuals (collectively, the "Town Indemnified Parties"), from any and all taxes, interest and penalties that the State of Connecticut asserts are due with respect to the successful proposer's activities under the Contract.

Connecticut General Statute §12-430(7) requires that:

When a non-resident contractor enters into a contract, they must post a 5% cash or guarantee bond for the total amount with the Commissioner of Revenue Services; **or**

Any person dealing with a non-resident contractor without first obtaining a certificate of compliance <u>must</u> deduct 5% from the amount payable to the non-resident contractor and submit it to the state.

If the requirements are not met, the general contractor will be liable for all Connecticut taxes imposed.

All questions shall be directed to the State of Connecticut Department of Revenue Services Discovery Unit at 860-541-3280.

The successful proposer shall also be required to pay any and all attorney's fees incurred by the Town Indemnified Parties in enforcing any of the successful proposer's obligations under this section, whether or not a lawsuit or other proceeding is commenced, which obligations shall survive the termination or expiration of the Contract.

20. <u>COMPLIANCE WITH LAWS</u>

The successful proposer shall comply with all applicable laws, regulations, ordinances, codes and orders of the United States, the State of Connecticut and the Town related to its proposal and the performance of the Contract.

Immigration Laws

By submitting a proposal, each proposer confirms that it has complied, and during the term of the Contract will comply, with the Immigration Reform and Control Act ("IRCA") and that each person it provides under the Contract will at all times be authorized for employment in the United States of America. Each proposer confirms that it has a properly completed Employment Eligibility Verification, Form I-9, for each person who will be assigned under the Contract and that it will require each subcontractor, if any, to confirm that it has a properly completed Form I-9 for each person who

will be assigned under the Contract.

The successful proposer shall defend, indemnify, and hold harmless the Town, its employees, officials, agents, volunteers and independent contractors, including any of the foregoing sued as individuals (collectively, the "Town Indemnified Parties"), against any and all proceedings, suits, actions, claims, damages, injuries, awards, judgments, losses or expenses, including fines, penalties, punitive damages, attorney's fees and costs, brought or assessed against, or incurred by, the Town Indemnified Parties related to or arising from the obligations under IRCA imposed upon the successful proposer or its subcontractor. The successful proposer shall also be required to pay any and all attorney's fees and costs incurred by the Town Indemnified Parties in enforcing any of the successful proposer's obligations under this provision, whether or not a lawsuit or other proceeding is commenced. The successful proposer's obligations under this section shall survive the termination or expiration of the Contract.

Non-Discrimination and Affirmative Action

In the performance of the Contract, the successful proposer shall agree and warrant that it will not discriminate or permit discrimination in any manner prohibited by the laws of the United States or of the State of Connecticut against any person or group of persons on the grounds of race, color, religious creed, age (except minimum age), marital status or civil union status, national origin, ancestry, sex, sexual orientation, mental retardation, mental disability or physical disability, including but not limited to blindness, unless the successful proposer shows that such disability prevents performance of the work involved.

In the performance of the Contract, the successful proposer will take affirmative action to insure that applicants with job-related qualifications are employed and that employees are treated when employed without regard to their race, color, religious creed, age (except minimum age), marital status or civil union status, national origin, ancestry, sex, sexual orientation, mental retardation, mental disability or physical disability, including but not limited to blindness, unless the successful proposer shows that such disability prevents performance of the work involved.

Any violation of these provisions shall be considered a material violation of the Contract and shall be grounds for the Town's cancellation, termination or suspension, in whole or in part, of the Contract and may result in ineligibility for further Town contracts.

Connecticut's Prevailing Wage Law Provision

If applicable, the contractor must be in full compliance with CGS Section 31-53 and 31-53(a) which applies to each contract for the construction, remodeling, refinishing, refurbishing, rehabilitation, alteration, or repair of any public works project by the state or its agents, or by any political subdivision of the State, CGS Section 31-53 (g) provides monetary thresholds which must be met before the law is applicable. In accordance with CGS Section 31-53, projects are subject to the payment of minimum prevailing wages where the total cost of all work to be performed by all contractors and subcontractors in connection with new construction of any public works project is \$1,000,000 or more and where the total cost of all work to be performed by all contractors in connection with any remodeling, refinishing, refurbishing, rehabilitation, alteration or repair of any public works project is \$100,000 or more. For qualifying projects, all contractors and subcontractors shall submit to the Finance Department certified weekly payrolls for all contracts meeting the stated monetary limits. The certified payrolls shall be submitted to the Finance Department with the contractor's monthly certificate for payment. The contractor should familiarize themselves with all aspects of the provisions under state law in order to ensure full compliance.

Executive Orders

The contract is subject to the provisions of Executive Order No. Three of Governor Thomas J. Meskill, promulgate June 16, 1971, concerning labor employment practices, Executive Order No. Seventeen of Governor Thomas J. Meskill, promulgate February 15, 1973, concerning the listing of employment opening and Executive Order No. Sixteen of Governor John G. Rowland promulgated August 4, 1999, concerning violence in the workplace, all of which are incorporated into and are made a part of the contract as if they had been fully set forth in it. The contract may also be subject to Executive Order No. 7C of Governor M. Jodi Rell, promulgated July 13, 2006, concerning contracting reforms and Executive Order No. 14 of Governor M. Jodi Rell, promulgate April 1 7, 2006, concerning procurement of cleaning products and services, in accordance with their respective terms and conditions.

Occupational Safety and Health Administration Requirement

According to CGS, Section 31-53b (a) each contract entered into on or after July 1, 2007, for the construction, remodeling, refinishing, refurbishing, rehabilitation, alteration or repair of any public building project by the state or any of its agents, or by a political subdivision of the state or any of its agents, where the total cost of all work to be performed by all contractors and subcontractors in connection with the contract is at least \$100,000 shall contain a provision requiring that, not later than thirty days after the date such contract is awarded, each contractor furnish proof to the Labor Commissioner that all employees performing manual labor on or in such public building , pursuant to such contract, have completed a course of at least ten hours in duration in construction safety and health approved by the federal Occupational Safety and Health Administration or, in the case of telecommunications employees, have completed at least ten hours of training in accordance with 29 CFR 1910.268. The aforesaid provisions shall be deemed to be incorporated into the Contract with the Town. The contractors should familiarize themselves with all aspects of state law and any applicable regulations pertaining to these requirements in order to ensure full compliance.

21. <u>NON COLLUSION AFFIDAVIT</u>

Each proposer shall submit a completed <u>Proposer's Non-Collusion Affidavit Form</u> that is part of this INVITATION TO BID, see **Exhibit B**.

22. <u>CONTRACT TERMS</u>

The following provisions will be mandatory terms of the Town's Contract with the successful proposer. If a proposer is unwilling or unable to meet, or seeks to clarify or modify, any of these Contract Terms, the proposer <u>must</u> disclose that inability, unwillingness, clarification and/or modification in its Proposal Form.

a. <u>DEFENSE, HOLD HARMLESS AND INDEMNIFICATION</u>

The successful proposer agrees, to the fullest extent permitted by law, to defend, indemnify, and hold harmless the Town, its employees, officers, officials, agents, volunteers and independent contractors, including any of the foregoing sued as individuals (collectively, the "Town Indemnified Parties"), from and against all proceedings, suits, actions, claims, damages, injuries, awards, judgments, losses or expenses, including attorney's fees, arising out of or relating, directly or indirectly, to the successful proposer's malfeasance, misconduct, negligence or failure to meet its obligations under the INVITATION TO BID or the Contract, any breach by the Contractor of the terms and specifications, or any injuries, including death, sustained by or alleged to have been sustained by the officers employees, agents and/or

servants of the Town of Stonington, or the contractor or subcontractors or material men, any injuries including death sustained by or alleged to have been sustained by any member of the public or otherwise any or all persons, and any damage to property, real or personal, including property of the Town of Stonington or its respective officers, agents, and servants, caused in whole or in part by the acts or omissions of the contractor, any subcontractor, or any material men or anyone directly or indirectly employed by them while engage in the performance of any work for the Town of Stonington.. The successful proposer's obligations under this section shall not be limited in any way by any limitation on the amount or type of the successful proposer's insurance.

Nothing in this section shall obligate the successful proposer to indemnify the Town or its Indemnified Parties against liability for damage arising out of bodily injury to persons or damage to property caused by or resulting from the negligence of the Town Indemnified Parties.

In any and all claims against the Town or its Indemnified Parties made or brought by any employee of the successful proposer, or anyone directly or indirectly employed or contracted with by the successful proposer, or anyone for whose acts or omissions the successful proposer is or may be liable, the successful proposer's obligations under this section shall not be limited by any limitation on the amount or type of damages, compensation or benefits payable by the successful proposer under workers' compensation acts, disability benefit acts, or other employee benefits acts.

The successful proposer shall also be required to pay any and all attorney's fees incurred by the Town or its Indemnified Parties in enforcing any of the successful proposer's obligations under this section. The successful proposer's obligations under this section shall survive the termination or expiration of the Contract.

As a municipal agency of the State of Connecticut, the Town will NOT defend, indemnify, or hold harmless the successful proposer.

b. <u>ADVERTISING</u>

The successful proposer shall not name the Town in its advertising, news releases, or promotional efforts without the Town's prior written approval.

If it chooses, the successful proposer may list the Town in a Statement of References or similar document required as part of its response to a public procurement. The Town's permission to the successful proposer to do so is not a statement about the quality of the successful proposer's work or the Town's endorsement of the successful proposer.

c. <u>SUBCONTRACTING</u>

Prior to entering into any subcontract agreement(s) for the work described in the Contract, the successful proposer shall provide the Town with written notice of the identity (full legal name, street address, mailing address (if different from street address), and telephone number) of each proposed subcontractor. The Town shall have the right to object to any proposed subcontractor by providing the successful proposer with written notice thereof within seven (7) business days of receipt of all required information about the proposed subcontractor. If the Town objects to a proposed subcontractor, the successful proposer shall

not use that subcontractor for any portion of the work described in the Contract. A list of any and all subcontractors shall be supplied by the Contractor to the Director of Public Works before work begins. The Town shall have the right to reject any subcontractor(s) and require the Contractor to find an alternative subcontractor. The Town will only contract with one firm for this work. All subcontractors shall have the required background, technical knowledge, equipment and satisfactory prior work history to perform their tasks in a satisfactory manner. All terms and requirements of these Specifications, and any Contract resulting from this Bid, shall also apply to all subcontractors.

All permitted subcontracting shall be subject to the same terms and conditions as are applicable to the successful proposer. The successful proposer shall remain fully and solely liable and responsible to the Town for performance of the work described in the Contract. The successful proposer also agrees to promptly pay each of its subcontractors within thirty (30) days of receipt of payment from the Town or otherwise in accordance with law. The successful proposer shall assure compliance with all requirements of the Contract. The successful proposer shall also be fully and solely responsible to the Town for the acts and omissions of its subcontractors and of persons employed, whether directly or indirectly, by its subcontractor(s).

d. <u>PREFERENCES</u>

The successful proposer shall comply with the requirements of Conn. Gen. Stat. § 31-52(b), as amended. Specifically, the successful proposer agrees that in the employment of labor to perform the work under the Contract, preference shall be given to citizens of the United States who are, and have been continuously for at least three (3) months prior to the date of the Contract, residents of the labor market area (as established by the State of Connecticut Labor Commissioner) in which such work is to be done, and if no such qualified person is available, then to citizens who have continuously resided in Hartford County for at least three (3) months prior to the date hereof, and then to citizens of the State who have continuously resided in the State at least three (3) months prior to the date hereof, and then to citizens of the Contract.

e. <u>LICENSES AND PERMITS</u>

The successful proposer certifies that, throughout the Contract term, it shall have and provide proof of all approvals, permits and licenses required by the Town and/or any state or federal authority. The successful proposer shall immediately and in writing notify the Town of the loss or suspension of any such approval, permit or license.

f. <u>CESSATION OF BUSINESS/BANKRUPTCY/RECEIVERSHIP</u>

If the successful proposer ceases to exist, dissolves as a business entity, ceases to operate, files a petition or proceeding under any bankruptcy or insolvency laws or has such a petition or proceeding filed against it, the Town has the right to terminate the Contract effective immediately. In that event, the Town reserves the right, in its sole discretion as it deems appropriate and without prior notice to the successful proposer, to make arrangements with another person or business entity to provide the services described in the Contract and to exercise any or all of its rights at Law, in equity, and/or under the Contract.

g. <u>AMENDMENTS</u>

The Contract may not be altered or amended except by the written agreement of both parties.

h. <u>ENTIRE AGREEMENT</u>

It is expressly understood and agreed that the Contract contains the entire agreement between the parties, and that the parties are not, and shall not be, bound by any stipulations, representations, agreements or promises, oral or otherwise, not printed or inserted in the Contract or its attached exhibits.

i. <u>VALIDITY</u>

The invalidity of one or more of the phrases, sentences or clauses contained in the Contract shall not affect the remaining portions so long as the material purposes of the Contract can be determined and effectuated.

j. <u>CONNECTICUT LAW AND COURTS</u>

The Contract shall be governed by and construed in accordance with the internal laws (as opposed to the conflicts of law provisions) of the State of Connecticut, and the parties irrevocably submit in any suit, action or proceeding arising out of the Contract to the jurisdiction of the United States District Court for the District of Connecticut or of any court of the State of Connecticut, as applicable.

k. <u>NON-EMPLOYMENT RELATIONSHIP</u>

The Town and the successful proposer are independent parties. Nothing contained in the Contract shall create, or be construed or deemed as creating, the relationships of principal and agent, partnership, joint venture, employer and employee, and/or any relationship other than that of independent parties contracting with each other solely for the purpose of carrying out the terms and conditions of the Contract. The successful proposer understands and agrees that it is not entitled to employee benefits, including but not limited to worker's compensation and employment insurance coverage, and disability. The successful proposer shall be solely responsible for any applicable taxes.

l. <u>PAYMENT</u>

Payment for the work associated with this bid shall be made within thirty (30) days by the Town, following the completion of all work invoiced to the satisfaction of the Public Works Director, as determined by inspection of the completed project the Director of Public Works or their designated agent, and upon submission of an invoice to the Town of Stonington Finance Department, 152 Elm Street, Stonington CT 06378. Payment for materials shall only be for materials already used or for materials stored on site at the job location. Frequency of invoices shall not exceed one per month. Payment for all items shall be made at the contract unit price for the actual amount of work required, performed and accepted.

The Director of Public Works will make a check of the Contractor's monthly requisitions for partial payments to arrive at an estimate such as, in the Director of Public Works's opinion, shall be fair and just, of the materials in place and of material suitability stored on the site

and of the amount of work performed on the Contract. In making such partial payments for the work, there shall be deducted ten percent (10%) of the estimated amount of each payment to be retained by the Town until after completion of the entire contract in an acceptable manner. The retainage will be kept for a one-year period after acceptance of the project as a guarantee. It is recommended that measurements of work be done with the Director of Public Works or their agent before the estimate is submitted.

m. <u>SEVERABILITY</u>

In the event of any inconsistencies between applicable general laws and this bid, or any Contract resulting from this bid, the applicable general laws shall prevail. In the event that any terms or provisions of this bid, or any Contract resulting from this bid, shall be found to be invalid or unenforceable pursuant to judicial decree or decision, then such term(s) or provision(s) shall be deemed to be stricken and the remainder of this bid, or any Contract resulting from this bid, shall be valid and enforceable according to its terms. The validity, interpretation and enforcement of any Contract resulting from this bid shall be governed by the laws of the State of Connecticut.

n. <u>DISPUTE RESOLUTION</u>

The sole remedy for any claim, dispute, or other matter in question arising out of or related to any Contract resulting from this bid will either be by mediation or by legal or equitable suit filed in Superior Court for the Judicial District of New London, Connecticut. No party shall be entitled to arbitration for any claim, dispute or other matter in question.

o. <u>PROTECTION</u>

Precaution for the protection of persons and property must be exercised at all times. The safety provisions of applicable laws, as well as building, fire and construction codes, shall be observed at all times. The Contractor shall take such additional safety and health measures as are reasonably necessary. Special precaution shall be taken to protect the work area from the elements during the course of the project, including the use of tarps or other protective covers as directed by the Director of Public Works. The Contractor shall be responsible for ensuring pedestrian and traffic safety in all work zones.

p. <u>STORAGE AND HANDLING</u>

All materials and equipment shall be delivered, handled and stored in a manner which prevents the intrusion of foreign materials and damage by breakage or weather. Such storage, delivery, and handling shall not interfere with Town operations nor impede access to any public areas. All equipment shall be stored in a clean, dry location. Material which is damaged shall be replaced with new material at no additional cost to the Town.

q. <u>CLEANUP</u>

Removal of material to be replaced is the responsibility of the Contractor. All accumulated rubbish and debris shall be removed daily from the job site and adjacent areas by the Contractor. Any such rubbish and debris shall not be placed in the Town's dumpster but shall be transported by the Contractor from the premises. All dumpster and trash disposal costs

shall be included in the bid price. Any inflammable rubbish shall not be burned on the premises but shall be hauled away.

The work area(s) shall be left clean and ready for use by the Town. If the Contractor fails to properly clean up the job site the Town may do so or may hire another firm of its choosing to do so. In either case, the cost of such cleanup shall be charged to the Contractor.

The Contractor must remove all debris of every description daily, and as the work progresses, leaving the surroundings in a neat and orderly condition to the satisfaction of the Director of Public Works or their designated agent. Upon completion, and before acceptable and final payment, the Contractor shall remove from the site all equipment, forms, surplus material, rubbish and miscellaneous debris and leave the site in a neat and presentable condition. Rough grading should occur after forms are removed to avoid tripping hazards.

r. <u>APPEARANCE</u>

All work shall be performed in a workmanlike and professional manner and shall be left with a neat appearance. All disturbed areas, both in and around the work site, shall be restored to their original condition. The contractor shall report any damage to the surrounding area to the Director or their agent. Any damage to a building, property or pavement resulting from this work shall be repaired by the Contractor at no additional cost to the Town. This includes any existing concrete slabs, curbing, bituminous paving, driveways, sprinkler systems, lawns, shrubs, etc. that are not within the replacement work area identified by the Director of Public Works or the Director of Public Works' designated representative, but are damaged by the Contractor's activities. Such items shall be replaced in kind at the Contractor's expense. All preparation and installation shall be performed in conformance with the manufacturer's guidelines and appropriate building and fire codes.

s. <u>WARRANTY</u>

All installations shall be guaranteed by the Contractor for one (1) year against any defects. The one-year period shall begin from the date all work on a particular project area is completed and accepted by the Town. In the event that a formal notice of acceptance is not issued by the Town, the check date of final payment for the project area shall be the date of acceptance. The Town shall withhold ten percent retainage for the one-year warranty period and prior to the release of the Performance Bond.

t. <u>CONDITION</u>

All material shall be new and unused prior to installation by the Contractor. All items installed shall be completely and properly functional, and installed to the full satisfaction of the Stonington Public Works Director, before payment will be processed by the Town.

- u. <u>N/A</u>
- v. <u>N/A</u>
- w. <u>N/A</u>

x. <u>N/A</u>

y. <u>STATE AND TOWN STANDARDS</u>

All materials and methods of construction shall be in accordance with the current specifications of the Town of Stonington's Technical Standards for Land Development and Roadway Construction as amended and the latest Connecticut Department of Transportation's Standard Specifications for Roads, Bridges and Incidental Construction, Form 818, as amended to include all Supplements posted on the Connecticut Department of Transportation's website. Specifications and sidewalk details are attached in the appendix. The Town of Stonington's Technical Standards for Land Development and Roadway Construction can be found on the Town's website in the Engineering Department's page.

- z. <u>N/A</u>
- aa. <u>N/A</u>
- bb. <u>N/A</u>

cc. <u>PROTECTION OF THE PUBLIC, WORK AND PROPERTY</u>

The Contractor shall take all proper precautions to protect from injury or unnecessary interference, and provide proper means of access in the event driveway access is cut off by the Contractor. The Contractor shall take all proper precautions to protect persons from injury or unnecessary inconvenience and leave an unobstructed way along the public and private place for travelers, vehicles and access to hydrants. The Town shall be held harmless for any claims against the Contractor.

The Contractor shall provide and maintain all necessary watchmen, barricades, flashing lights and warning signs and take all necessary precautions for the protection of the public. The Contractor shall continuously maintain adequate protection of all work against damage, and shall take all reasonable precautions for protection of the Town from injury or loss arising in connection with this Contract. The Contractor shall make good any damage to the property of the Town, injury or loss of work resulting from lack of reasonable protective precautions, except such as may be the result of errors in the Contract Documents, or caused by agents or employees of the Town. The Contractor shall adequately protect adjacent private and public property, as provided by law and the Contract. No direct payment will be made for this item. Erosion controls may be requested if conditions are warranted and as determined by the Public Works Director or their designated agent. All excavated areas shall be barricaded by the Contractor and lit with electrified flashers during the hours of darkness.

dd. SUSPENSION FOR WEATHER CONDITIONS

Should the work be carried on late in the year, and in the opinion of the Public Works Director or their designated agent is in danger by reason of inclemency of weather or could not be finished in time to prevent such danger, the Contractor shall cease operations upon order of the Public Works Director or their designated agent, and shall not resume them until ordered to do so by the Public Works Director or their designated agent, when the weather conditions are favorable. The time of suspension should not be considered in the winter months. The Contractor shall only perform work activities after April 1st and before November 30th of any calendar year. Any work prior to April 1st or after November 30th must be approved by the Town Engineer or their designee. The Contractor shall, upon such orders, discontinue work, remove all materials or appliances for use by the public during the time the work is suspended as herein provided without cost to the Town.

ee. <u>UNSATISFACTORY PERFORMANCE</u>

If, in the opinion of the Public Works Director or the Public Works Director's designated agent, the Contractor is not prosecuting the work at a sufficient rate of progress, so as to finish in the time specified, or has abandoned said work or is not complying with the terms and stipulations of the contract and specifications, the Public Works Director or the Public Works Director's designated agent may serve notice on the Contractor to adopt such methods as will insure the completion of the work in the time specified or in compliance with the terms and stipulations of the contract and specifications.

If, within five (5) days after the Public Works Director or the Public Works Director's designated agent has notified the Contractor that the Contractor's work is not carried on satisfactorily as before mentioned, the Public Works Director shall have the right to annul the Contract and manage the work under the direction of the Director of Public Works or re-let, for the very best interest of the Town as a new Contract, the work remaining to be done without in any manner affecting or releasing the bond of the defaulting Contractor. The cost of the work under said new contract, shall be considered extra cost to the Town of the work left undone by the defaulting Contractor, and may be recovered by the Town by calling the original bond.

ff. <u>ROYALTIES AND PATENTS</u>

The Contractor shall pay all royalties and license fees. He shall defend all suits or claims for infringement of any patent rights and shall save the Town of Stonington harmless from loss when a particular manufacture, produce, or process is specified by the Town of Stonington.

gg. <u>PERMITS</u>

Permits, licenses and temporary easements necessary for the prosecution of the work shall be secured and paid for by the Contractor. Property and easements for permanent structures or permanent changes in existing facilities shall be secured or paid for by the Town. No permit fee will be assessed for work within the Town right-of-way.

The Contractor shall make arrangements with adjacent property owners for such trespass as he may reasonably anticipate in the prosecution of the work. All such arrangements shall be reported in writing to the Director of Public Works.

If this project involves work on a State Highway, the Town shall obtain a permit from District 2, Connecticut Department of Transportation, Bureau of Highways, for work within said State Highway rights of way and shall be responsible for any permit fees, insurance certificates and bonds to obtain same.

hh. **INSPECTION OF WORK**

Concrete must be supplied by a State Certified Vendor. Certificate must be submitted to Town prior to delivery. The Town shall provide sufficient competent personnel for supervision of the work. The Director of Public Works and their representative shall at all times have access to the work whenever it is in preparation or progress, and the Contractor shall provide proper facilities for such access and for inspection.

If the specifications, the Director of Public Works or their designated agent, instructions, law ordinances or any public authority require any work to be specially tested or approved, the Contractor shall give the Director of Public Works or their designated agent timely notice of its readiness for inspection, and if the inspection is by another authority other than the Director of Public Works or their designated agent, of the date for such inspection. Inspections by the Director of Public Works or their designated agent shall be promptly made, and where practicable at the source of supply. If work should be covered up without approval or consent of the Director of Public Works or their designated agent be uncovered for examination and properly restored at the Contractor's expense. A 24-hour notice for all inspections shall be made to the Engineering Department at (860) 535-5076, during normal office hours of 8:00 a.m. to 4:00 p.m. Monday through Friday.

Re-inspection of any work may be ordered by the Director of Public Works or their designated agent and, if so ordered, the work must be uncovered by the Contractor. If work is found to be in accordance with the Contract Document, the Town shall pay the cost of re-inspection and replacement. If such work is not in accordance with the Contract Document, the Contract

The contractor shall notify the Engineering Department for inspections. Inspections will be required to accept the line and grade, forms, stone base, and concrete. If the concrete does not comply with slump specifications, the inspector or agent has the right to reject the load at no expense to the Town. Water will not be allowed to be added to the concrete mix without permission from the inspector.

Upon notice from the Contractor, the Engineering Department will contact the State for inspections. All work within the State of Connecticut's right-of-way will be inspected by a State Department of Transportation representative for acceptance of lines and grades. Any areas within the State right-of-way which do not meet State inspection standards will be removed and replaced at the cost of the Contractor.

ii. EXISTING IMPROVEMENTS

The Contractor shall conduct their work so as to minimize damage to existing improvements, except where specifically stated in the specifications or drawings. It will be the responsibility of the Contractor to restore, as nearly as practical, to their original condition all improvements on public or private property, at the Contractor's expense.

The Contractor shall give ample notice to the various utilities so that the Contractor shall cooperate and coordinate its work so that the least interference is caused by the utilities. The Contractor shall support all utility lines uncovered due to trench excavation. Final utility depths and locations shall be coordinated between the Contractor and the utility company.

Toll-free Call Before You Dig number should be contacted 72 hours in advance of any excavation. (1-800-922-4455).

jj. <u>TRAFFIC AND SAFETY – See Specifications</u>

kk. <u>PROPERTY MARKERS</u>

Property line pins and concrete bound markers are to be protected during sidewalk construction. Any markers moved or destroyed during construction are to be reset by a State of Connecticut Licensed Land surveyor at the Contractor's expense.

II. LIQUIDATED DAMAGES

The contractor agrees to pay the Owner liquidated damages in the amount of one hundred dollars (\$1,000.00) per day for each day of delay over and above the completion date specified in this contract. If the Contractor ceases operation for ten (10) working days cumulative or consecutive, the owner shall reserve the right to consider the contract void and the performance bond shall be forfeited to the Town of Stonington.

mm. ASSIGNMENTS

The Contractor shall not sublet, sell, transfer, assign, or otherwise dispose of the contract or any portion thereof, or of the work provided therein, or of his right, title or interest therein, to any person, firm partnership or corporation without the written consent of the Town. If any part of the work is sublet, sold, transferred assigned or otherwise disposed of, the Contractor will not be relieved of any responsibility in connection therewith.

nn. UNIT PRICES

The prices herein shall be made a part of the Contract upon execution and will remain in effect until the completion of the project and cannot be renegotiated due to changes in cost of materials or labor costs.

oo. <u>COMPLETION DATE</u>

The Contractor shall have four months to complete the project from the date of the Town's written Notice to Proceed. A written request for extension due to unusual circumstances may be granted by the Director of Public Works.

рр. <u>N/A</u>

qq. <u>N/A</u>

23. LOCAL VENDOR PREFERENCE

The Town has a local vendor preference ordinance. Any bidder that qualifies for the "LOCAL VENDOR PREFERENCE" must fill out a "Town-Based Business Affidavit Form" signed by an authorized representative of the bidder at the time of the bid submittal in order to be considered for this preference. Failure to submit a Town Based Business Affidavit on the form provided by the Town of Stonington will result in disqualification of town-based business status and loss of any preference given to a town-based business on the part of such bidder as to its bid. The form is available on the Town's website at <u>www.stonington-ct.gov</u> or can be obtained by contacting the Finance Department at 860-535-5070.

24. OUALIFICATIONS OF BIDDER

The Town may make whatever investigations it deems necessary to determine the ability of the bidder to perform the work, and the bidder shall furnish to the Town all information and data for this purpose as the Town may request. The Town reserves the right to reject any bid if the evidence submitted by, or investigation of, the bidder fails to satisfy the Town that the bidder is properly qualified to carry out the obligations of the contract and to complete the work contemplated therein. Conditional bids will not be accepted.

25. <u>HAZARDOUS MATERIALS</u>

The Contractor, when providing, using, storing, delivering or disposing of any toxic, hazardous or potentially dangerous materials, shall advise the Town, in writing, of the condition of such hazardous materials in advance of conducting any work and is responsible for protecting the Contractor's own employees, those of the Town, and all its' agents from the hazards associated with such materials. The Contractor shall furnish direction, precautions, or training, provided or made available from the supplier of the materials, or other acceptable source, for use by all persons who may be subject to the hazard. The Contractor shall comply with all applicable regulations and laws. The Contractor shall dispose of any hazardous or toxic substances in accordance with all applicable regulations or laws, including E.P.A. and D.O.T., and shall provide the Town with the appropriate generator E.P.A. number. The Contractor shall do all things necessary to ensure that there will be no discharge, spillage, uncontrolled loss, seepage or filtration of any hazardous or toxic waste on the site caused by the Contractor's operations. The Contractor is responsible for any and all costs and liabilities associated with the cleanup of any such spillage, etc., or as required by any regulating authority, and holds the Town harmless against any current or future liabilities resulting from such an incident.

END OF STANDARD INSTRUCTIONS TO PROPOSERS

VIII.

NOTICES, SECTIONS AND SPECIAL PROVISIONS

INDEX PAGE

- Section 1.07 Legal Relation and Responsibilities
- Section 1.08 Prosecution and Progress
- Item #0219011A Sedimentation Control at Catch Basin
- Item #0406194A Joint and Crack Sealing of Bituminous Concrete Pavement
- Item #0520036A Asphaltic Plug Expansion Joint System
- Item #0520041A Preformed Joint Seal
- Item #0707009A Membrane Waterproofing (Cold Liquid Elastomeric)
- Item #0971001A Maintenance and Protection of Traffic

SECTION 1.07 - LEGAL RELATIONS AND RESPONSIBILITIES

Article 1.07.13 - Contractor's Responsibility for Adjacent Property, Facilities and Services is supplemented as follows:

The following company and representative shall be contacted by the Contractor to coordinate the protection of their utilities on this project 30 days prior to the start of any work on this project involving their utilities:

Aquarion Water Company of Connecticut

Mr. Carlos Vizcarrondo, Relocations Coordinator 600 Lindley Street Bridgeport, CT 06606 PHONE: (203) 337-5950 EXT: Mobile: (203) 395-3097 E-MAIL: <u>cvizcarrondo@aquarionwater.com</u>

Aquarion Water Company of Connecticut, (Mapping Requests)

Mr. Ralph Odame, GIS Analyst II 600 Lindley Street Bridgeport, CT 06606 PHONE: (203) 337-5888 EXT: Mobile: E-MAIL: rodame@aquarionwater.com

Southeastern Connecticut Water Authority

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Town of Westerly

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SECTION 1.08 - PROSECUTION AND PROGRESS

Article 1.08.04 - Limitation of Operations - Add the following:

In order to provide for traffic operations as outlined in the Special Provision "Maintenance and Protection of Traffic," the Contractor will not be permitted to perform any work which will interfere with the described traffic operations on all project roadways as follows:

White Rock Road

The Contractor shall maintain an alternating one-way traffic operation controlled by Temporary Stop Signs for construction (roadway paving and marking). Work at the site is restricted to Monday through Friday (except legal holidays) from 7:00AM to 6:00PM. Work at the site will not be permitted on Saturday, Sunday, or legal Holidays without authorization from the Towns of Stonington (Connecticut) and Westerly (Rhode Island).

The Contractor shall notify the Engineer at least 14 days in advance of the start of the White Rock Road traffic operations.

All Other Roadways

Monday through Friday between 6:00 a.m. and 9:00 a.m. & between 3:00 p.m. and 6:00 p.m. Saturday and Sunday between 10:00 a.m. and 6:00 p.m.

Additional Lane Closure Restrictions

It is anticipated that work on adjacent projects will be ongoing simultaneously with this project. The Contractor shall be aware of those projects and anticipate that coordination will be required to maintain proper traffic flow at all times on all project roadways, in a manner consistent with these specifications and acceptable to the Engineer.

The Contractor will not be allowed to perform any work that will interfere with traffic operations on a roadway when traffic operations are being restricted on that same roadway, unless there is at least a one-mile clear area length where the entire roadway is open to traffic or the closures have been coordinated and are acceptable to the Engineer. The one-mile clear area length shall be measured from the end of the first work area to the beginning of the signing pattern for the next work area.

ITEM #0219011A – SEDIMENTATION CONTROL AT CATCH BASIN

Description: This work shall consist of furnishing, installing, cleaning, maintaining, replacing, and removing sedimentation control at catch basins at the locations and as shown on plans and as directed by the engineer.

<u>Materials</u>

Sack shall be manufactured from a specially designed woven polypropylene geotextile sewn by a double needle machine, using a high strength nylon thread. Sack shall be manufactured by one of the following or an approved equal:

<u>Siltsack®</u> SI Geosolutions: www.sigeosolutions.com (800)621-0444

Dandy Sack[™] Dandy Products Inc. P.O. Box 1980 Westerville, Ohio 43086 Phone: 800-591-2284 Fax: 740-881-2791 Email: dlc@dandyproducts.com Website: www.dandyproducts.com

<u>FLeXstorm Inlet Filters</u> Inlet & Pipe Protection 24137 W. 111th St - Unit A Naperville, IL 60564 Telephone: (866) 287-8655 Fax: (630) 355-3477

The sack will be manufactured to fit the opening of the catch basin or drop inlet. Sack will have the following features: two dump straps attached at the bottom to facilitate the emptying of sack and lifting loops as an integral part of the system to be used to lift sack from the basin. The sack shall have a restraint cord approximately halfway up the sack to keep the sides away from the catch basin walls, this cord is also a visual means of indicating when the sack should be emptied. Once the strap is covered with sediment, the sack should be emptied, cleaned and placed back into the basin.

Construction Methods:

Installation, removal, and maintenance shall be per manufacturer instructions and recommendations.

[Type text]

<u>Method of Measurement</u>: Sedimentation Control at Catch Basin will be measured as each installed, maintained, accepted, and removed. There will be no separate measurement for maintenance or replacement associated with this item.

Basis of Payment:

Sedimentation Control at Catch Basin will be paid for at the contract unit price each complete in place and accepted, which price shall include all maintenance throughout construction, materials, equipment, tools, and labor incidental thereto.

ITEM #0406194A – JOINT AND CRACK SEALING OF BITUMINOUS CONCRETE PAVEMENT

Description: This work consists of furnishing and applying hot-applied asphalt crack sealer to bituminous concrete pavement joints and cracks. It shall be constructed in close conformity with the lines, grades, thicknesses, and typical cross sections shown on the plans or established by the Engineer. Joint and Crack Sealing of Bituminous Concrete Pavement may be used in conjunction with other repair treatments including joint and crack filling or patching, in which case the sequence of treatments will be provided in the Plans or directed by the Engineer.

For the purposes of this document, the word "crack" includes all longitudinal (along the direction of travel) and transverse (perpendicular to the direction of travel) cracks and joints. All work specified for "crack(s)" herein shall apply to all types of cracks and joints unless otherwise specified.

Materials:

- <u>Crack Seal:</u> The crack seal material shall be composed of a hot-applied asphalt meeting ASTM D6690 Type II requirements. The Contractor must submit to the Engineer all Material Safety Data Sheet documents from the material manufacturer prior to the commencement of work. During work progress, the Contractor must submit to the Engineer the manufacturer's Material Certificate for compliance to ASTM D6690 Type II requirements for each batch or lot of material utilized on the Contract.
- 2. <u>Optional Barrier Material Backer Rod:</u> The backer rod shall be a heat resistant material compatible with the crack sealant and acceptable to the manufacturer of the sealant. No bond or reaction shall occur between the sealant and the rod. It shall be of a non-water absorbent material and shall not melt or shrink when hot sealant is poured on it.

The backer rod shall have a maximum of 5% absorption when immersed in water for 24 hours with the ends sealed. The backer rod shall be of such a size that compression is required for installation in the crack, so that it maintains its position during the sealing operation. Backer rod shall be dry.

3. <u>Optional Barrier Material – Hot Mix Asphalt (HMA)</u>: Any HMA placed in the bottom of a crack between 1.5 and 2 inches wide shall be HMA S0.25 Traffic Level 2 and shall meet all requirements of Section 4.06 - Bituminous Concrete.

The Contractor must submit to the Engineer all Material Safety Data Sheet documents from the material manufacturer(s) prior to the commencement of work. During work progress, the Contractor must submit to the Engineer the manufacturer's Material Certificate for compliance to applicable specifications for each batch or lot of material utilized on the Contract.

Construction Methods: The crack sealing operation shall proceed in accordance with the requirements of the "Maintenance and Protection of Traffic" and "Prosecution and Progress" specifications.

- 1. <u>Equipment:</u> The equipment used by the Contractor shall include, but not be limited to, the following:
 - a. Melter Applicator: The unit shall consist of a boiler kettle equipped with pressure pump, hose, and applicator wand; the boiler kettle may be a combination melter and pressurized applicator of a double-boiler type with space between the inner and outer shells filled with heat transfer oil. Heat transfer oil shall have a flash point of not less than 600°F. The kettle shall include a temperature control indicator. The kettle shall be capable of maintaining the crack seal material at the manufacturer's specified application temperature range. The kettle shall include an insulated applicator hose and application wand. The hose shall be equipped with a shutoff control. The kettle shall include a mechanical full sweep agitator to provide continuous blending. The unit shall be equipped with thermometers to monitor the material temperature and the heating oil temperature. The unit shall be equipped with thermostatic controls that allow the operator to regulate material temperature up to at least 425°F.
 - b. Application Wand and Squeegee Applicator: The material shall be applied with a wand followed by a squeegee applicator. The squeegee applicator shall be of commercial/industrial quality designed with a "U" shaped configuration. It shall be of a size adequate to strike off, flush with the surrounding pavement surface and without overflow around the sides, all crack seal material placed. This tool shall be either attached to the applicator wand or used separately as its own long handled tool.
 - c. Hot Air Lance: The unit shall be designed for cleaning and drying the pavement surface cracks. Minimum compressed air capacity shall be 100 psi. The compressed air emitted from the tip of the lance shall be capable of achieving a temperature of at least 1500°F.
 - d. Vertically Mounted Power Driven Wire Brush: This tool shall be used to remove any dirt, debris, or vegetation to the depths specified that cannot be removed by the hot air lance. It shall be of adequate size and power to remove all material from cracks as specified.
- 2. <u>Weather Requirements:</u> Work shall not be performed unless the pavement is dry. No frost, snow, ice, or standing water may be present on the roadway surface or within the cracks. The ambient temperature must be 40°F and rising during the field application operations for work to proceed.
- 3. <u>Material Mixing Procedure</u>: The prepackaged material shall be added to the melter applicator in the presence of the Engineer. It shall then be mixed and heated to the recommended application temperature. The crack seal material shall never exceed 400°F.

4. <u>Determination of Cracks to be Sealed</u>: The width and depth requirements for cracks to be sealed are as follows:

All crack width determinations shall be made by measuring the crack width flush at the surface of the pavement prior to being sealed. A straightedge shall be used whenever necessary to establish the location or limits of the flush surface of the pavement.

All cracks from 1/8 inch up to 1.5 inches wide shall be prepared and sealed as stated below. Cracks that are between 1/8 inch and 1.5 inches wide, but eventually taper in width below the minimum 1/8 inch, shall also be prepared and sealed as stated below. Only cracks that are less than 1/8 inch wide throughout their entire length shall be excluded.

Transverse cracks, where a portion of the crack (50% or less) exceeds a width of 1.5 inches, up to 2 inches, shall also be prepared and sealed as stated below.

All joints to be sealed that are raveled (loss of the pavement surface material) shall be at least $\frac{1}{2}$ inch in depth at the joint's deepest point. The minimum width of a raveled joint must be $\frac{1}{2}$ inch. The maximum width of a raveled joint to be sealed is 3 inches.

Any cracks exceeding the width and depth requirements specified above shall be repaired using separate items.

5. <u>Crack Preparation:</u> Cracks to be sealed shall be treated with a hot air lance prior to application of the crack seal material. Two (2) passes minimum shall be made with the hot air lance. The hot air lance operation shall proceed at a rate no greater than 120 feet per minute. There shall be no more than 10 minutes between the second hot air lance treatment and the material application.

The use of the hot air lance is not intended to heat the crack. It is to be used to blow all debris from the crack to the depths specified below and to remove any latent moisture from the crack until the inside of the crack is completely dry as determined by the Engineer. "Moisture" does not include standing water. The hot air lance is not to be used to boil off or blow standing water from the bottom of a crack. If standing water is present in the bottom of any crack, the sealing operation shall be postponed until such time that the standing water evaporates naturally. The Contractor may use compressed, oil-free air (not heated) to blow standing water from a crack to help accelerate the natural evaporation process. If standing water remains after using compressed air, the crack shall be allowed to dry naturally until remaining standing water evaporates. The hot air lance shall be used after visible water has evaporated. If a crack is already completely dry as determined by the Engineer, the hot air lance shall be operated at its lowest temperature possible.

The hot air lance is to be used to blow all debris from cracks (not including raveled joints) to a depth of at least $\frac{3}{4}$ inch for cracks between $\frac{1}{8}$ inch and $\frac{3}{4}$ inch wide, and to a depth of 1.25 inches for cracks between $\frac{3}{4}$ inch and 2 inches wide. The hot air lance shall be used to blow

all debris from raveled joints to a depth of 1 inch or the full depth of the joint, whichever is smaller.

In the event that cracks are packed tightly with debris, dirt, vegetation, or other material, except previously placed sealant or filler, the Contractor shall use a vertically mounted power driven wire brush to remove all material and burnish the sides of the crack to the depths specified above. Cracks treated with the power driven wire brush shall subsequently be treated with a hot air lance as described in this section. The use of both the power driven wire brush and the hot air lance shall result in the complete removal of all material in the crack (except previously placed sealant or filler) to the depths specified above such that the sides of the crack are completely free and clean of any debris and moisture.

In the event that cracks have depths greater than 2 inches below the pavement surface, the Contractor may place a barrier composed of backer rod as specified herein. The backer rod shall be placed in a manner leaving 1.25 inches below the elevation of the pavement surface for crack seal material. Use of backer rod will not be allowed for cracks wider than 1.5 inches or less than ½ inch wide. For cracks between 1.5 and 2 inches wide, HMA S0.25 Traffic Level 2 may be placed in the bottom of the prepared crack. HMA shall be placed and compacted with a steel T-bar approved by the Engineer in a manner leaving 1.25 inches below the elevation of the pavement surface for crack seal material.

- 6. <u>Crack Sealing</u>: As soon as cracks have been prepared, they shall be filled to refusal along their entire length with the crack sealant material. The treatment material shall be maintained at the manufacturer's specified/recommended application temperature range at all times. The sealing operation shall be suspended if the temperature of the crack seal material falls outside the specified temperature range and shall remain suspended until the crack seal material is brought within the specified temperature range. Sealed cracks are to be squeegeed immediately following application of the crack seal material, striking excess sealer flat to the adjacent pavement surface. There shall be no build-up of treatment material fails to fill the crack or shrinks upon cooling such that there is a depression formed of at least ¼ inch or greater, a second application of sealant shall be placed over the first application.
- 7. <u>Protection of Sealed Cracks:</u> Traffic shall not be permitted on the pavement until the crack seal material is set so that the material does not track and is not deformed or pulled out by tires. If the work under this item is being performed prior to placing a hot mix overlay or other surface treatment, a detackifier or blotting agent will not be allowed. If work under this item is not followed by placement of an overlay of any kind, a detackifier or blotting agent may be used. If a detackifier or blotting agent is used, it shall be one recommended by the supplier of the crack seal material and shall be used as recommended by the supplier, except that no paper, cotton, or other organic materials shall be allowed. Information on the type and usage of a detackifier or blotting agent shall be presented to the Engineer for their written acceptance prior to use.

8. <u>Removal and Disposal of Material:</u> All debris generated from the operations described above shall be removed from the roadway by the Contractor.

Treatment material remaining in the Contractor's kettle at the close of the daily work session shall be discarded. At no time shall treatment material be re-heated for use in subsequent crack sealing applications unless permitted by the Engineer following a review of specific circumstances.

All debris and surplus treatment material shall be properly disposed in accordance with Article 1.10.03 and State of Connecticut law.

9. <u>Acceptance of Work:</u> When work is complete, an inspection shall be scheduled with the Engineer. The Engineer will note all deficiencies including, but not limited to, areas exhibiting adhesion failure, cohesion failure, tracking of sealant material, and missed cracks. Work identified by the Engineer as not acceptable shall be repaired at the Contractor's expense. The Contractor shall notify the Engineer upon completion of any corrective work performed.

Method of Measurement: This work will be measured by the total number of linear feet of cracks sealed as indicated in the Contract plans and as measured, verified, and accepted by the Engineer.

Basis of Payment: This work will be paid for at the Contract unit price per linear foot for "Joint and Crack Sealing of Bituminous Concrete Pavement" complete and accepted in place. The price shall include all submittals, materials, equipment, tools, and labor incidental thereto. No payment will be made to the Contractor prior to submittal of required documents.

Pay Item	Pay Unit
Joint and Crack Sealing of Bituminous Concrete Pavement	l.f.
ITEM #0520036A - ASPHALTIC PLUG EXPANSION JOINT SYSTEM

Description: Work under this item shall consist of furnishing and installing an asphaltic plug expansion joint system (APJ) in conformance with ASTM D6297, as shown on the plans, and as specified herein.

Work under this item shall also consist of the removal and disposal of bituminous concrete, membrane waterproofing, existing joint components and sealing elements, cleaning and sealing median barrier joints, parapet joints, and sidewalk joints.

Work under this item excludes the removal of Portland cement concrete headers.

Materials: The APJ component materials shall conform to ASTM D6297 and the following:

<u>Aggregate:</u> The aggregate shall meet the following requirements:

- a) Loss on abrasion: The material shall show a loss on abrasion of not more than 25% using AASHTO Method T96.
- b) Soundness: The material shall not have a loss of more than 10% at the end of five cycles when tested with a magnesium sulfate solution for soundness using AASHTO Method T 104.
- c) Gradation: The aggregate shall meet the requirements of Table A below:
- d) Dust: aggregate shall not exceed 0.5% of dust passing the #200 sieve when tested in accordance with AASHTO T-11.

Square Mesh Sieves	1"	³ / ₄ "	¹ / ₂ "	³ / ₈ "	No. 4
	(25.0 mm)	(19.0 mm)	(12.5 mm)	(9.5 mm)	(4.75 mm)
% passing	100	90 - 100	20 - 55	0 - 15	0 - 5

<u>Table A</u>

A sample of the aggregate shall be submitted to the Department with a Certified Test Report in accordance with Article 1.06.07 for each 20 tons of loose material or its equivalent number of bags delivered to the job site. The Certified Test report must include a gradation analysis resulting from a physical test performed on the actual material that accompanies the report.

<u>Anti-Tacking Material</u>: This material shall be a fine graded granular material with 100% passing the $^{3}/_{16}$ " sieve and no more than 5% passing the #200 when tested in accordance with AASHTO T-27.

Backer Rod: All backer rods shall satisfy the requirements of ASTM D5249, Type 1.

<u>Bridging Plate:</u> The bridging plates shall be steel conforming to the requirements of ASTM A36 and be a minimum $\frac{1}{4}$ " thick and 8" wide. For joint openings in excess of 3" the minimum plate dimensions shall be $\frac{3}{8}$ " thick by 12" wide. Individual sections of plate <u>shall not exceed</u>

<u>4'</u> in length. Steel locating pins for securing the plates shall be size 16d minimum, hot-dip galvanized, and spaced no more than 12" apart.

<u>Concrete Leveling Material</u>: Shall be a cementitious-based material that conforms to ASTM C928 Standard Specification for Packaged, Dry, Rapid-Hardening Cementitious Materials for Concrete Repair, for R3 performance requirements in Table 1 and achieve the following:

- a. Final set in 45 Minutes
- b. 2500 psi compressive strength in 24 hours
- c. 5000 psi compressive strength in 7 days

<u>Parapet Sealant</u>: The sealant used in parapet joint openings shall be a single component nonsag silicone sealant that conforms to the requirements of ASTM D5893.

<u>Sidewalk Sealant:</u> The sealant used in sidewalk joint openings shall be a rapid cure, selfleveling, cold applied, two-component silicone sealant. The silicone sealant shall conform to the requirements listed in Table B:

Properties - As Supplied	Test Method	Requirement	
Extrusion Rate	ASTM C1183	200-600 grams/min	
Leveling	ASTM C639	Self-Leveling	
Specific Gravity	ASTM D792	1.20 to 1.40	
Properties - Mixed	Test Method	Requirement	
Tack Free Time	ASTM C679	60 min. max.	
Joint Elongation –	ASTM D5329 ^{1,2,3}	600% min	
Adhesion to concrete			
Joint Modulus @	ASTM D5329 ^{1,2,3}	15 psi max	
100% elongation			
Cure Evaluation	ASTM D5893	Pass @ 5 hours	

Table B

- 1. Specimens cured at 77 ± 3^{0} F and $50\pm5\%$ relative humidity for 7 days
- 2. Specimens size: ¹/₂"wide by ¹/₂"thick by 2" long
- 3. Tensile Adhesion test only

The date of manufacture shall be provided with each lot. No sealant shall be used beyond its maximum shelf-life date.

The two-part silicone sealants shown in Table C are known to have met the specified requirements:

Table C

Product	Supplier
Dow Corning 902RCS	Dow Corning Corporation
	2200 W Salzburg Road
	Auburn, Michigan 48611
	BASF/Watson Bowman Acme Corporation
Wabo SiliconeSeal	95 Pineview Drive
	Amherst, New York 14228

Other two-component silicone joint sealants expressly manufactured for use with concrete that conform to the aforementioned ASTM requirements will be considered for use provided they are submitted in advance for approval to the Engineer. Other joint sealants will be considered for use only if a complete product description is submitted, as well as documentation describing at least five installations of the product. These documented installations must demonstrate that the product has performed successfully for at least three years on similar bridge expansion joint applications.

A Materials Certificate and Certified Test Report for the asphaltic binder shall be submitted by the Contractor in accordance with the requirements of Article 1.06.07 certifying that the asphaltic binder satisfies the requirements of the most current version of ASTM D6297.

A Materials Certificate for all other components of the APJ, leveling material, backer rod and sealant used in sealing parapet and sidewalk joint openings, shall be submitted by the Contractor in accordance with the requirements of Article 1.06.07

Construction Methods: The APJ shall be installed at the locations shown on the plans and in stages in accordance with the traffic requirements in the special provisions "Maintenance and Protection of Traffic" and "Prosecution and Progress".

At least 30 days prior to start of the work, the Contractor shall submit to the Engineer for approval a detailed Quality Control Plan for the installation of the APJ. The submittal shall include:

- a) A list of all manufactured materials and their properties to be incorporated in the joint system, including, but not limited to the asphaltic binder, anti-tack material, backer rod, sealant, leveling material, as well as the aggregate's source.
- b) A detailed step by step installation procedure and a list of the specific equipment to be used for the installation. The Quality Control Plan must fully comply with the specifications and address all anticipated field conditions, including periods of inclement weather.

The APJ shall not be installed when bituminous concrete overlay or joint cutout is wet. The APJ shall only be installed when the bridge superstructure surface temperature is within the limits specified in Table D and when the ambient air temperature is within the range of 45^oF to 95^oF. The bridge superstructure surface temperature range is determined using the thermal movement

range provided on the contract plans for the proposed APJ deck installation location and the selected APJ product.

Installation Restrictions			
Designed Deck Joint Thermal Movement Range ²	Bridge Superstructure Surface Temperature ¹		
0" to 1"	45° F to 95° F		
1-1/8"	45° F to 90° F		
1-1/4"	45° F to 80° F		
1-3/8"	45° F to 70° F		
1-1/2"	45° F to 65° F		

Tabl	le D

- The superstructure surface temperature shall be determined from the average of three or more surface temperature readings taken at different locations on the interior girder surfaces by the Contractor as directed by the Engineer. Temperature measurements of the superstructure shall be taken by the contractor with a calibrated hand held digital infrared laser-sighted thermometer on the surfaces of an interior steel girder, or interior concrete girder protected from direct sunlight. The infrared thermometer to be supplied by the Contractor for this purpose shall meet certification requirements of EN61326-1, EN61010-1, and EN60825-1 maintained by the European Committee for Electrotechnical Standardization (CENELEC). The thermometer shall have a minimum distance-to-spot ratio of 50:1 and shall have adjustable emissivity control. The thermometer shall have a minimum accuracy value of ±1% of reading or ±2°F, whichever is greater. The thermometer shall be used in strict accordance with the manufacturer's written directions. An additional infrared thermometer satisfying the same standards to be used in this application shall also be provided to the Engineer for quality assurance purposes.
- 2. Linear interpolation may be used to determine an allowable surface temperature range for thermal movement ranges in between values shown in the table, as approved by the Engineer.

Prior to installing the APJ, the Contractor shall determine the exact location of the deck joint beneath the bituminous concrete overly.

The APJ shall be installed symmetrically about the deck joint opening to the dimensions shown on the plans or as directed by the Engineer; not to exceed 24 inches measured perpendicular to the deck joint. The proposed saw cut lines shall be marked on the bituminous concrete overlay by the Contractor and approved by the Engineer, prior to saw-cutting. The saw-cuts delineating the edges of the APJ shall extend full depth of the bituminous concrete overlay.

The existing bituminous concrete overlay, waterproofing membrane and/or existing expansion joint material, within the saw cut limits shall be removed and disposed of by the Contractor to create the joint cutout.

Concrete surfaces that will support the bridging plates shall be smooth and form a plane along and across the deck joint. Rough or damaged concrete surfaces shall be repaired with a leveling compound meeting the requirements of this specification. Deteriorated concrete areas within the joint limits shall be repaired as directed by the Engineer: such repairs, when deemed necessary by the Engineer, shall be compensated for under the applicable concrete deck repair items in the Contract. The existing and repaired concrete surfaces shall provide continuous uniform support for the bridging plate and prevent the plate from rocking and deflecting.

Prior to the installation of the backer rod, all horizontal and vertical surfaces of the joint cutout shall be abrasive blast cleaned using an oil-free, compressed air supply. The entire cutout shall then be cleared of all loose blast media, dust, debris and moisture using an oil-free, hot air lance capable of producing an air stream at 3,000°F with a velocity of 3,000 feet per second.

A single backer rod, with a diameter at least 25% greater than the existing joint opening at the time of installation, shall be installed at an inch below the bridging plate in the existing deck joint opening between the concrete edges.

Asphaltic binder shall be heated to a temperature within the manufacturer's recommended application temperature range which shall be provided in the Quality Control Plan. During application, the temperature of the binder shall be maintained within this range. In no case shall the temperature of the binder go below 350° F nor exceed the manufacturer's recommended maximum heating temperature.

Asphaltic binder shall then be poured into the joint opening until it completely fills the gap above the backer rod. A thin layer of binder shall next be applied to the all horizontal and vertical surfaces of the joint cutout.

Bridging plates shall be abrasive blast-cleaned on-site prior to installation and then placed over the deck joint opening in the joint cutout. The plates shall be centered over the joint opening and secured with locating pins along its centerline. The plates shall be placed end to end, without overlap, such that the gap between plates does not exceed ¹/₄". The plates shall extend to the gutter line and be cut to match the joint's skew angle, where concrete support exists on both sides of the joint. Within APJ installation limits, where concrete support does not exist at both sides of the joint opening (such as where a bridge deck end abuts a bituminous concrete roadway shoulder), bridging plates shall not be installed. Installed bridging plates shall not rock or deflect in any way.

After installation of bridging plates, a thin layer of asphaltic binder shall be applied to all exposed surfaces of the plates.

The remainder of the joint cutout shall then be filled with a mixture of hot asphaltic binder and aggregate prepared in accordance with the submitted Quality Control Plan and the following requirements:

- The aggregate shall be heated in a vented, rotating drum mixer by the use of a hotcompressed air lance to a temperature of between 370° F. to 380° F. This drum mixer shall be dedicated solely for the heating and, if necessary, supplemental cleaning of the aggregate. Venting of the gas and loose dust particles shall be accomplished through ¹/₄" drilled holes spaced no more than 3" on center in any direction along the entire outside surface of the drum
- Once the aggregate has been heated, it shall then be transferred to a secondary drum mixer where it shall be fully coated with asphaltic binder. A minimum of two gallons of binder per 100lbs of stone is required.
- The temperature of the aggregate and binder shall be monitored by the contractor with a calibrated digital infrared thermometer.
- The coated aggregate shall be loosely placed in the joint cutout in lifts not to exceed 2 inches.
- Each lift shall be leveled, compacted and then flooded with hot asphaltic binder to the level of the aggregate to fill all voids in the coated aggregate layer. The surface of each lift shall be flooded until only the tips of the aggregate protrude out of the surface.
- The final lift shall be placed such that no stones shall project above the level of the adjacent overlay surface following compaction of the coated aggregate.
- Following installation of the final lift, sufficient time and material shall be provided to allow all voids in the mixture to fill. This step may be repeated as needed.
- The joint shall then be top-dressed by heating the entire area with a hot-compressed air lance and applying binder. The final joint surface must be smooth with no protruding stones and be absent of voids.
- Once top-dressed, the joint shall have an anti-tack material spread evenly over the entire surface to prevent tracking.

The Contractor shall be responsible for removing all binder material that leaks through the joint and is deposited on any bridge component, including underside of decks, headers, beams, diaphragms, bearings, abutments and piers.

Traffic shall not be permitted over the joint until it has cooled to 130° F when measured with a digital infrared thermometer. Use of water to cool the completed joint is permitted.

Sidewalk, parapet, and/or curb joint openings

Before placement of any sealing materials in parapets, curbs, or sidewalks, the joints shall be thoroughly cleaned of all scale, loose concrete, dirt, dust, or other foreign matter by abrasive blast cleaning. Residual dust and moisture shall then be removed by blasting with oil free compressed air using a hot air lance. Projections of concrete into the joint space shall also be removed. The backer rod shall be installed in the joint as shown on the plans. The joint shall be clean and dry before the joint sealant is applied. Under no circumstances is the binder material to be used as a substitute for the joint sealant.

Whenever abrasive blast cleaning is performed under this specification, the Contractor shall take adequate measures to ensure that the abrasive blast cleaning will not cause damage to adjacent traffic or other facilities.

The joint sealant shall be prepared and placed in accordance with the manufacturer's instructions and with the equipment prescribed by the manufacturer. Extreme care shall be taken to ensure that the sealant is placed in accordance with the manufacturer's recommended thickness requirements.

The joint sealant shall be tooled, if required, in accordance with the manufacturer's instructions.

Primer, if required, shall be supplied by the sealant manufacturer and applied in accordance with the manufacturer's instructions.

When the sealing operations are completed, the joints shall be effectively sealed against infiltration of water. Any sealant which does not effectively seal against water shall be removed and replaced at the Contractor's expense.

Any installed joint that exhibits evidence of failure, as determined by the Engineer, such as debonding, cracking, rutting, or shoving of the APJ mixture shall be removed and replaced full-width and full-depth to a length determined by the Engineer at no additional cost to the State.

Method of Measurement: This work will be measured for payment by the number of cubic feet of "Asphaltic Plug Expansion Joint System" installed and accepted within approved horizontal limits. No additional measurement will be made for furnishing and installing backer rod and joint sealant in the parapets, concrete medians, curbs and/or sidewalks.

Basis of Payment: This work will be paid for at the contract unit price per cubic foot for "Asphaltic Plug Expansion Joint System," complete in place, which price shall include the sawcutting, removal and disposal of bituminous concrete, membrane waterproofing, existing joint components and sealing elements, the furnishing and placement of the leveling compound, cleaning of the joint surfaces, furnishing and installing bridging plates, the furnishing and installing of the asphaltic plug joint mixture, the cost of furnishing and installing joint sealant in the parapets, concrete medians, curbs and sidewalks, and all other materials, equipment including, but not limited to, portable lighting, tools, and labor incidental thereto. No additional payment shall be made for the 12" wide bridging plates that are required for deck joint openings with widths in excess of 3".

If directed by the Engineer, additional deck repairs will be addressed and paid for under the applicable concrete deck repair items in the Contract.

ITEM #0520041A - PREFORMED JOINT SEAL

Description: Work under this item consists of furnishing and installing a preformed joint seal as shown on the plans. Work also includes a pre-installation survey to measure the pavement depth at all locations where the joint meets the curb.

Materials: One of the following Preformed Joint Seals specified on the plans shall be supplied:

V-Shaped Silicone Seals:

- Silicoflex: RJ Watson, Inc. 11035 Walden Ave Alden, New York 14004 Tel: (716) 901-7020 Website: <u>http://www.rjwatson.com</u>
- <u>V-Seal:</u> D.S. Brown Company 300 East Cherry Street North Baltimore, Ohio 45872 Tel: (419) 257-3561 Website: <u>http://www.dsbrown.com</u>

Foam-Supported Silicone Seals:

- Bridge Expansion Joint System (B.E.J.S.): EMSEAL Joint Systems Ltd.
 25 Bridle Lane, Westborough, MA 01581 Tel: (508) 836-0280 Website: <u>http://www.emseal.com</u>
- 4. Wabo FS Bridge Seal Watson Bowman Acme Corp.
 95 Pineview Drive Amherst, NY 14228 Tel: (716) 691-9239 Website: <u>https://wbacorp.com/products/bridge-highway/joint-seals/wabofsbridge/</u>

When foam-supported silicone joint seals are the only type allowed on the plans (such as at bridge joints that extend through sidewalks), the CTDOT will consider products from other foam-supported silicone joint manufacturers, if the products have been installed by another State Department of Transportation, are functioning successfully in a similar climate to Connecticut's for at least one year, and are deemed by the CTDOT to be suitable for use in the specific application for which the Contractor is requesting. To be considered, the Contractor shall submit documentation indicating the product name, manufacturer, the contact information for a Department of Transportation official who can confirm the successful installation and continued success of the product, the date of installation and the nature of the installation, including thermal movement range and skew of the installed joint.

A Materials Certificate for all components of the selected preformed joint seal shall be submitted by the Contractor in accordance with the requirements of Article 1.06.07

Construction Methods: All work at each joint location shall be accomplished in accordance with "Maintenance and Protection of Traffic" and "Prosecution and Progress."

Submittals:

Prior to ordering preformed joint seals, and prior to forming block-outs for the preformed joint seals in the headers, the Contractor shall submit the following to the Engineer:

- The Manufacturer and product information of the selected joint system;
- Material safety data sheets (MSDS) and technical product information;
- Name and credentials of a qualified technical representative supplied by the manufacturer and acceptable to the Engineer. This person shall be available to provide assistance at the beginning of the work and be available to provide training and guidance throughout the project.
- A detailed, step-by-step installation procedure, including surface preparation, splicing of the preformed joint seal, and a list of the specific equipment to be used for the installation.

<u>Installation</u>: The technical representative of the accepted joint system shall be notified of the scheduled installation a minimum of 2 weeks in advance and be present to provide direction and assistance for the first joint installation and succeeding joint installations until the Contractor becomes proficient in the work and to the satisfaction of the Engineer.

The minimum ambient temperature for installing any of the qualified, preformed joint seals is 40° F and rising. When the manufacturer's requirement for minimum installation temperature is greater than 40° F, the manufacturer's requirement will govern.

All concrete surfaces to which sealing glands will be bonded shall be prepared in accordance with International Concrete Repair Institute (ICRI) concrete surface profile standards. The minimum acceptable surface profile is CSP2 (grinding), but CSP3 (light abrasive blast) is preferred. Any discontinuities or sharp projections into the plane of the joint shall be ground smooth prior to blasting. Whenever abrasive blast cleaning is performed, the Contractor shall take adequate measures to ensure that the abrasive blast cleaning will not cause damage to adjacent traffic or other facilities. Traffic will not be allowed to pass over the joint after blasting has occurred.

Following blasting, the joint surfaces shall be wiped down or blown clean as recommended by the manufacturer.

The joint surfaces shall be completely dry before installing any of the components of the selected joint seal. The selected joint seal shall not be installed immediately after precipitation or if precipitation is forecast. Joint preparation and installation of the selected preformed joint seal must be done during the same day.

The selected joint sealing system shall be installed continuously with no field splices in the preformed seal in the roadway section, unless field splices are allowed by the manufacturer of the selected preformed joint seal. In no case shall field splices of the preformed joint seal be allowed in a wheel path or within the roadway shoulder. When splices cannot be avoided due to traffic constraints, the splice shall be at a painted lane line.

After the joint seal has been installed, water shall not be able to penetrate the joint. Any joint seal that does not effectively seal against water shall be removed and replaced at the Contractor's expense.

Method of Measurement: This work will be measured for payment by the number of linear feet of preformed joint sealing system installed and accepted. The measurement will be made along the centerline of the joint at the top surface of header, curb, sidewalk and parapet.

Basis of Payment: This work will be paid for at the Contract unit price per linear foot for "Preformed Joint Seal," complete in place, including all materials, equipment, tools, and labor incidental thereto.

The Contract unit price shall include the cost of assistance from a technical representative of the selected joint system.

Pay Item Preformed Joint Seal Pay Unit l.f.

ITEM #0707009A - MEMBRANE WATERPROOFING (COLD LIQUID ELASTOMERIC)

Description: Work under this item consists of furnishing and installing a seamless elastomeric waterproofing membrane system applied to a concrete or steel surface as shown on the plans, in accordance with this specification and as directed by the Engineer. Work shall also include conditioning of the surface to be coated and all quality-control testing noted herein.

The completed membrane system shall be comprised of a primer coat, two layers of the membrane coating (minimum total thickness of 80 mil and maximum total thickness not to exceed 120 mil), an additional 40 mil membrane layer with aggregate broadcast into the material while still wet, reinforcing material at deck panel joints and two applications of asphalt emulsion (tack coat) at a rate of 0.05-0.07 gal/s.y. each, allowing the first application to break prior to applying the second.

Materials: The Contractor shall select a waterproofing membrane system from the Department's current Qualified Product List (QPL) for Spray-Applied Membrane Waterproofing System. All materials incorporated in the works shall meet the Manufacturer's specification for the chosen system. The Engineer will reject any system that is not on the QPL.

Reinforcing material shall be as recommended by the manufacturer.

Materials Certificate: The Contractor shall submit to the Engineer a Materials Certificate for the primer, membrane and aggregate in accordance with the requirements of Article 1.06.07.

Construction Methods: At least 30 days prior to installation of the membrane system, the Contractor shall submit to the Engineer a Site-specific Installation Plan that includes the manufacturer's recommended procedure for preparing the deck surface, pre-treatment or preparing at cracks and gaps, treatment at curbs, vertical surfaces or discontinuities, applying the primer and membrane, placing of aggregated coat and all Quality Control (QC Plan) testing operations to be performed during the membrane system's installation. Procedures shall also include recommended repairs of system non-compliant issues identified during application. The system shall be applied to the prepared area(s) as defined or shown in the plans, strictly in accordance with the Installation Plan.

A technical representative, in the direct employ of the manufacturer, shall be present on-Site immediately prior to and during application of the membrane. The representative shall inspect and approve the surface prior to priming, and provide guidance on the handling, mixing and addition of components and observe application of the primer and membrane. The technical representative shall perform all required QC testing and remain on the Project site until the membrane has fully cured.

All QC testing, including verbal direction or observations at the time of installation, shall be recorded and submitted to the Engineer for inclusion in the Project records. The QC testing data

shall be received by the Department's project personnel prior to any paving over the finished membrane, or within 24 hours following completion of any staged portion of the work.

- 1. Applicator Approval: The Contractor's membrane Applicator shall be fully trained and licensed by the membrane manufacturer and shall have successfully completed at least three spray membrane projects in the past five years. The Contractor shall furnish references from those projects, including names of contact persons and the names, addresses and phone numbers of persons who supervised the projects. This information shall be submitted to the Engineer prior to the submittal of the Installation Plan. The Engineer shall have sole authority to determine the adequacy and compliance of the submitted information. Inadequate proof of ability to perform the work will be grounds to reject proposed applicators.
- 2. Job Conditions:
 - (a) Environmental Requirements: Air and substrate temperatures shall be between 32°F and 104°F and the substrate shall be above the dew point. Outside of this range, the Manufacturer shall be consulted.

The Applicator shall be provided with adequate disposal facilities for nonhazardous waste generated during installation of the membrane system. The applicator shall follow safety instructions regarding respirators and safety equipment.

(b) Safety Requirements: All open flames and spark producing equipment shall be removed from the work area prior to commencement of application.

"No Smoking" signs shall be visibly posted at the Site during application of the membrane waterproofing.

Personnel not involved in membrane application shall be kept out of the work area.

- 3. Delivery, Storage and Handling:
 - (a) Packaging and Shipping: All components of the membrane system shall be delivered to the Site in the Manufacturer's packaging, clearly identified with the product type and batch number.
 - (b) Storage and Protection: The Applicator shall be provided with a storage area for all components. The area shall be cool, dry and out of direct sunlight and shall be in accordance with the Manufacturer's recommendations and relevant health and safety regulations.

Copies of Material Safety Data Sheets (MSDS) for all components shall be kept on Site for review by the Engineer or other personnel.

- (c) Shelf Life Membrane Components: Packaging of all membrane components shall include a shelf life date sealed by the Manufacturer. No membrane components whose shelf life has expired shall be used.
- 4. Surface Preparation:
 - (a) Protection: The Applicator shall be responsible for the protection of equipment and adjacent areas from over spray or other contamination. Parapets and bridge joints shall be masked prior to application of the materials.
 - (b) Surface Preparation: Sharp peaks and discontinuities shall be ground smooth. Any peak greater than ¼ inch above the surface profile of the prepared substrate shall be ground to the surrounding elevation. Any valley or minor surface deterioration of ½ inch or greater shall also be repaired. The extent and location of surface patches require the approval of the Engineer before the membrane system is applied.

Surfaces shall be free of oil, grease, curing compounds, loose particles, moss, algae, growth, laitance, friable matter, dirt, bituminous products, and previous waterproofing materials. If required, degreasing shall be done by detergent washing in accordance with ASTM D4258.

The surface shall be abrasively cleaned, in accordance with ASTM D4259, to provide a sound substrate free from laitance.

Voids, honeycombed areas, and blow holes on vertical surfaces shall be repaired as indicated in the Installation Plan.

All steel components to receive membrane waterproofing shall be blast cleaned in accordance with SSPC SP6 and shall be coated with the membrane waterproofing system within the same work shift.

- 5. Inspection and Testing: Prior to priming of the surface, the Engineer, Applicator and Manufacturer's technical representative shall inspect and approve the prepared substrate.
 - (a) Random tests for deck moisture content shall be conducted on the substrate by the Contractor at the Site using a "Sovereign Portable Electronic Moisture Master Meter," a "Tramex CMEXpertII Concrete Moisture Meter" or approved equal. The minimum frequency shall be one test per 1000 s.f. but not less than three tests per shift for each contiguous section worked on during that shift. Additional tests may be required if atmospheric conditions change and retesting of the substrate moisture content is warranted.

The membrane system shall not be installed on substrate with a moisture content greater than 6%, or at a moisture content above the amount recommended by the system's Manufacturer, whichever is less.

(b) Random tests for adequate tensile bond strength shall be conducted by the Contractor on the substrate using an adhesion tester in accordance with the requirements of ASTM D4541. The minimum frequency shall be one test per 5,000 s.f. but not less than three adhesion tests per shift for each contiguous section worked on during that shift. The locations of the pull tests shall be at least a distance from each other equal to or greater than 1/3 of the width or length (whichever is greater) of the area being worked in that section. The location of the pull tests shall be located in accordance with ASTM D3665 or a statistically-based procedure of stratified random sampling approved by the Engineer.

Adequate surface preparation will be indicated by tensile bond strengths of primer to the substrate greater than or equal to 150 psi or failure in a concrete surface and greater than or equal to 300 psi for steel surfaces.

If the tensile bond strength is lower than the minimum specified, the Engineer may request additional substrate preparation. Any primer not adequately applied shall be removed and new primer applied at the Contractor's expense, as directed by Engineer.

- (c) Grouted joints, materials that the membrane cannot bond to, and cracks or discontinuities that cannot be bridged over by the membrane material shall be covered by a reinforcing material recommended by the membrane system's Manufacturer prior to application of membrane layers as approved or directed by the Engineer.
- 6. Application:
 - (a) The System shall be applied in the following distinct steps as follows:
 - 1) Substrate preparation
 - 2) Priming
 - 3) Reinforcing material application over grouted joints, cracks, etc.
 - 4) Membrane application (minimum 2 layers)
 - 5) Membrane with aggregate
 - (b) Immediately prior to the application of any components of the System, the surface shall be adequately dry (see Section 5(a) of this specification) and any remaining dust or loose particles shall be removed using clean, dry, oil-free compressed air or industrial vacuum.
 - (c) Where the area to be treated is bound by a vertical surface (e.g. curb or wall), the membrane system shall be continued up the vertical, if shown on the plans or directed by the Engineer.
 - (d) The handling, mixing and addition of components shall be performed in a safe manner to achieve the desired results, in accordance with the Manufacturer's recommendations or as approved or directed by the Engineer.

- (e) A neat finish with well defined boundaries and straight edges shall be provided by the Applicator.
- (f) Primer: The primer shall consist of one coat with an overall coverage rate of 125 to 175 s.f./gal unless otherwise recommended in the Manufacturer's written instructions.

All components shall be measured and mixed in accordance with the Manufacturer's recommendations.

The primer shall be spray applied using a single component spray system approved for use by the Manufacturer. If required by Site conditions and allowed by the manufacturer brush, squeegee or roller application will be allowed.

The primer shall be allowed to cure tack-free for a minimum of 30 minutes or as required by the Manufacturer's instructions, whichever time is greater, prior to application of the first lift of waterproofing membrane.

Porous concrete (brick) may require a second coat of primer should the first coat be absorbed.

(g) Membrane and Reinforcing Material: Application of the membrane on the primed surface shall not commence until the primer is cured as described in Section 6(f) of this specification and the adhesion pull tests are completed in accordance with Section 5(b) of this specification.

The waterproofing membrane shall consist of two coats for a total dry film thickness of a minimum 80 mils but not to exceed 120 mils. Adjacent coats shall be of a contrasting color to aid in Quality Assurance and inspection. Any reinforcing material shall be applied immediately before the first coat of membrane in accordance with the Manufacturer's recommendations.

The membrane shall be comprised of Components A and B and a hardener powder which is to be added to Component B in accordance with the Manufacturer's recommendations.

The substrate shall be coated in a methodical manner.

Thickness checks: For each layer, checks for wet film thickness using a gauge pin or standard comb-type thickness gauge shall be carried out once every 100 s.f. Where rapid set time of the membrane does not allow for wet film thickness checks, ultrasonic testing (steel surfaces only), calibrated point-penetrating (destructive) testing, in-situ sampling (cutout of small sections for measuring thicknesses), or other methods approved by the Engineer shall be employed for determination of dry film

thickness. The measured thickness of each and every individual test of the membrane shall be greater than or equal to the required thickness.

Bond Strength: Random tests for adequate tensile bond strength shall be conducted on the membrane in accordance with the requirements of ASTM D4541. The minimum test frequency shall be one test per 5,000 s.f. but no less than three adhesion tests per bridge. Adequate adhesion will be indicated by tensile bond strengths of the membrane to the substrate of greater than or equal to 150 psi or failure in a concrete surface, and greater than or equal to 300 psi for steel surfaces.

Repair the membrane system following destructive testing and correct any deficiencies in the membrane system or substrate noted during QC testing in accordance with the Manufacturer's recommendations to the satisfaction of the Engineer at no additional cost to the State.

(h) Repairs: If an area is left untreated or the membrane becomes damaged, a patch repair shall be carried out to restore the integrity of the system. The damaged areas shall be cut back to sound materials and wiped with solvent (e.g. acetone) up to a width of at least four inches on the periphery, removing any contaminants unless otherwise recommended by the Manufacturer. The substrate shall be primed as necessary, followed by the membrane layers. A continuous layer shall be obtained over the substrate with a four-inch overlap onto existing membrane.

Where the membrane is to be joined to existing cured material, the new application shall overlap the existing by at least four inches. Cleaning and surface preparation on areas to be lapped shall be as recommended in the Manufacturer's written instructions.

- (i) Aggregated Finish:
 - 1) Apply an additional 40 mil thick layer of the membrane material immediately followed by an aggregate coating, before the membrane cures, at a rate to fully cover the coated area to a point where no membrane material is visible. The membrane and aggregate shall be fully integrated after the aggregate has been applied and the membrane cured.
 - 2) Localized areas not fully coated shall be touched-up with additional membrane and aggregate as needed.
 - 3) Using motorized mechanical sweepers or a vacuum sweeper apparatus, remove all loose and excess aggregate from the surface to the satisfaction of the Engineer and dispose of properly after application prior to allowing traffic onto finished surface or application of tack coat. Any areas not fully coated after sweeping shall be touched up with additional membrane and aggregate as needed.
- 7. Final Review: The Engineer and the Applicator shall jointly review the area(s) over which the completed system has been installed. Any irregularities or other criteria that do not meet the requirements of the Engineer shall be addressed at this time.

Method of Measurement: This item shall be measured by the number of square yards of waterproofed surface completed and accepted.

Basis of Payment: This item will be paid for at the Contract unit price per square yard of "Membrane Waterproofing (Cold Liquid Elastomeric)," complete and accepted in place, which price shall include all surface preparation, furnishing, storing and applying the system, technical representative and Quality Control testing, and any necessary repairs and remediation work as well as all materials, equipment, tools, labor incidental to this work.

Pay Item	Pay Unit
Membrane Waterproofing (Cold Liquid Elastomeric)	s.y.

ITEM NO. 0971001A – MAINTENANCE AND PROTECTION OF TRAFFIC

Article 9.71.01 – Description *is supplemented by the following:*

The Contractor shall maintain and protect traffic as described by the following and as limited in the special provision for Section 1.08 - Prosecution and Progress:

White Rock Road:

The Contractor shall maintain and protect a minimum of 1 lane of traffic not less than 11 feet in width for construction (roadway paving and marking).

Commercial and Residential Driveways

The Contractor shall maintain access to and egress from all commercial and residential driveways throughout the Project limits. The Contractor will be permitted to temporarily close affected driveways while actively working with coordination and permission from the owner or proprietor.

Article 9.71.03 - Construction Methods is supplemented as follows:

General

Unpaved travel paths will only be permitted for areas requiring full depth and full width reconstruction. The unpaved section shall be the full width of the road and shall be perpendicular to the travel lanes. The Contractor will be allowed to maintain traffic on processed aggregate for a duration not to exceed 10 calendar days and opposing traffic lane dividers shall be used as a centerline.

The Contractor is required to delineate any raised structures within the travel lanes, so that the structures are visible day and night, unless there are specific Contract plans and provisions to temporarily lower these structures prior to the completion of work.

The Contractor shall schedule operations so that pavement removal and roadway resurfacing shall be completed full width across a roadway or bridge section by the end of a work shift, or as directed by the Engineer.

When the installation of all intermediate courses of bituminous concrete pavement is completed for the entire roadway, the Contractor shall then install the final course of bituminous concrete pavement.

When the Contractor is excavating adjacent to the roadway, the Contractor shall provide a 3 foot shoulder between the work area and travel lanes, with traffic drums spaced every 50 feet. At the end of the work shift if the vertical drop-off exceeds 3 inches, the Contractor shall provide a temporary bituminous concrete traversable slope of 4:1 or flatter that is acceptable to the Engineer.

The Contractor, during the course of any active overhead construction work, shall close the lanes directly below the work area for the entire length of time overhead work is being undertaken.

At no time shall an overhead sign be left partially removed or installed.

When an existing sign is to be relocated or replaced, the work shall be completed during the same work shift.

The field installation of a signing pattern shall constitute interference with existing traffic operations and shall not be allowed, except during the allowable periods.

On limited-access highways, construction vehicles entering travel lanes shall not be allowed without a lane closure. The lane closure shall be of sufficient length to allow vehicles to enter or exit the work area at the posted speed limit, in order to merge with existing traffic.

Existing Signing

The Contractor shall maintain all existing overhead and side-mounted signs within the Project limits throughout the duration of the Project. The Contractor shall temporarily relocate signs and sign supports as many times as deemed necessary, and shall install temporary sign supports if necessary and as directed by the Engineer.

Requirements for Winter

The Contractor shall schedule a meeting with representatives of the Town to determine any interim traffic control measures the Contractor shall accomplish prior to winter to provide safety to motorists and permit adequate snow removal procedures. This meeting shall be held prior to October 31 of each year and will include, but not be limited to, discussion of the status and schedule of the following items: lane and shoulder widths, pavement restoration, traffic signal work, pavement markings, and signing.

Pavement Markings - Non-Limited Access Roadways

During construction, the Contractor shall maintain all pavement markings on paved surfaces on all roadways throughout the limits of the Project.

Temporary pavement markings shall be installed on each intermediate course of bituminous concrete pavement and on any milled surface by the end of the work shift.

Permanent Epoxy Resin Pavement Markings shall be installed on the final course of bituminous concrete pavement within 10 calendar days of the final pavement installation if no Pavement Marking Grooves are proposed.

Temporary Pavement Markings

Temporary pavement markings that will be in place for less than 72 continuous hours may consist of temporary plastic pavement marking tape at the Contractor's expense. Additionally;

- 1. These temporary pavement markings shall include centerlines, lane lines (solid and broken), and stop bars.
- 2. Centerlines shall consist of two 4 inch wide yellow markings, 2 feet in length, side by side, 4 inches apart, at 40 foot intervals.

- 3. Lane lines shall consist of 4 inch wide white markings, 2 feet in length, at 40 foot intervals.
- 4. No passing zones shall be posted with signs in those areas where the final centerlines have not been established on two-way roadways.
- 5. Stop bars may consist of two 6 inch wide white markings or three 4 inch wide white markings placed side by side.
- 6. The temporary plastic pavement marking tape shall be installed in accordance with Section 12.12.
- 7. The Contractor shall remove and dispose of the temporary plastic pavement marking tape prior to another course of bituminous concrete pavement being installed.

Temporary pavement markings that will be in place for 72 continuous hours or more should consist of temporary painted pavement markings and shall be installed in accordance with Section 12.09. The markings shall include centerlines, edge lines, lane lines (solid and broken), lane-use arrows, and stop bars on each intermediate course of bituminous concrete pavement and on any milled surface by the end of the work shift Edge lines and lane-use arrows are not required if the next course of bituminous concrete pavement will be placed within 10 calendar days.

All temporary pavement markings exposed throughout the winter shall be Epoxy Resin Pavement Markings, unless directed otherwise by the Engineer.

Temporary pavement markings, as described above, shall be maintained until the permanent pavement markings are installed.

Final Pavement Markings

Refer to Pavement Marking Groove special provisions for pavement marking requirements. Permanent epoxy resin pavement markings shall be installed in accordance with Section 12.10 and the applicable Traffic Engineering Standard Drawings.

If Temporary Plastic Pavement Marking Tape is installed, then the Contractor shall remove and dispose of these markings during the same work shift that the permanent epoxy resin pavement markings are to be installed. The cost of furnishing, installing and removing the Temporary Plastic Pavement Marking Tape shall be at the Contractor's expense.

Signing Patterns

The Contractor shall erect and maintain all signing patterns in accordance with the traffic control plans contained herein. Proper distances between advance warning signs and proper taper lengths are mandatory.

Traffic Control During Construction Operations

The following guidelines shall assist field personnel in determining when and what type of traffic control patterns to use for various situations. These guidelines shall provide for a safer and more efficient movement of traffic through work zones and enhance the safety of work forces in the work area.

Traffic Control Patterns

Traffic control patterns shall be used when a work operation requires that all or part of any vehicle or work area protrudes onto any part of a travel lane or shoulder or is within the clear zone. For each situation, the installation of traffic control devices shall be based on the following:

- Speed and volume of traffic.
- Duration of operation.
- Exposure to hazards.

Traffic control patterns shall be uniform, neat, and orderly in order to command respect from the motorist.

Lane reduction tapers should be placed so that the entire length of the taper is installed on a tangent section of roadway and the entire taper area can be seen by the motorist.

All existing conflicting signs shall be removed, covered with an opaque material, or turned so that they are not legible to oncoming traffic prior to implementing a traffic control pattern. The existing signs shall be uncovered or reinstalled once the pattern is removed.

A buffer area should be provided during installation of a traffic control pattern and maintained for the duration of the work. The buffer area shall be free of any equipment, workers, materials, and parked vehicles.

Construction Traffic Control Plans 19 through 25 should be used for moving operations such as line striping, rumble strips, pothole patching, mowing, or sweeping when it is necessary for equipment to occupy a travel lane.

Traffic control patterns are not required for vehicles on an emergency patrol type activity or for a short duration stop of up to one hour, as long as the equipment is contained within the shoulder. Flashing lights, arrow boards, truck-mounted or trailer-mounted impact attenuators, and appropriate Trafficperson(s) shall be used when required.

In a situation not adequately covered by the Construction Traffic Control Plans, the Contractor shall contact the Engineer for assistance prior to setting up a traffic control pattern.

Placement of Signs

Signs shall be placed in a position that allows motorists the opportunity to reduce their speed prior to the work area. Signs shall be installed on the same side of the roadway as the work area. On multi-lane divided highways, advance warning signs shall be installed on both sides of the highway. On directional roadways (on-ramps, off-ramps, one-way roads) where the sight distance to signs is restricted, these signs should be installed on both sides of the roadway.

Allowable Adjustment of Signs and Devices Shown on the Construction Traffic Control Plans

The Construction Traffic Control Plans contained herein show the location and spacing of signs and devices under ideal conditions. Signs and devices should be installed as shown on these plans.

The proper application of the Construction Traffic Control Plans and installation of traffic control devices is dependent upon actual field conditions.

In the case of a horizontal or vertical sight restriction in advance of the work area, the traffic control pattern shall be extended to provide adequate sight distance for approaching traffic.

Adjustments to the Construction Traffic Control Plans shall only be made at the direction of the Engineer.

Table 1 indicates the minimum taper lengths required for a lane closure based on the posted speed limit and lane width of the roadway. These taper lengths shall only be used when the recommended taper lengths shown on the Construction Traffic Control Plans cannot be achieved.

POSTED SPEED	MINIMUM TAPER LENGTH		
LIMIT	FOR A SINGLE LANE CLOSURE (FEET)		
(MPH)	FREEWAYS SECONDARY ROADS		
30 OR LESS	180	165	
35	245	225	
40	320	295	
45	540	495	
50	600	550	
55	660	605	
65	780	715	

 Table 1 – Minimum Taper Length

1. Work Zone Safety Meetings

1.a) Prior to the commencement of work, a Work Zone Safety Meeting shall be conducted with representatives from DOT Construction, Connecticut State Police (Local Barracks), Municipal Police, the Contractor (Project Superintendent) and the Traffic Control Subcontractor (if different than the prime Contractor) to review the traffic operations, lines of responsibility, and operating guidelines which will be used on the Project. DOT

Traffic Engineering shall be invited to the Work Zone Safety Meeting. Other Work Zone Safety Meetings during the course of the Project should be scheduled as needed.

- 1.b) A Work Zone Safety Meeting Agenda shall be developed and used at the Meeting to outline the anticipated traffic control issues during the construction of this Project. Any issues that can't be resolved at these Meetings will be brought to the attention of the District Engineer and the Office of Construction. The agenda shall include:
 - i. Review Project scope of work and time;
 - ii. Review Section 1.08, Prosecution and Progress;
 - iii. Review Section 9.70, Trafficpersons;
 - iv. Review Section 9.71, Maintenance and Protection of Traffic;
 - v. Review Contractor's schedule and method of operations;
 - vi. Review special concern areas: ramps, turning roadways, medians, lane drops, etc.;
 - vii. Open discussion of work zone questions and issues;
 - viii. Discussion of review and approval process for changes in Contract requirements as they relate to work zone areas.
- 2. General

2.a) Traffic control patterns shall only be installed if the required minimum number of signs, traffic cones, traffic drums, and other equipment (i.e. one Arrow Board for each lane closed, two Truck-Mounted or Trailer-Mounted Attenuators (TMAs), Changeable Message Sign, etc.) are on Site.

- 2.b) The Contractor shall have spare maintenance and protection of traffic equipment (TMAs, Arrow Board, Changeable Message Sign(s), construction signs, traffic cones, traffic drums, etc.) available at all times in case of mechanical failures, etc. Spare maintenance and protection of traffic equipment installed as a result of a sudden equipment breakdown shall be replaced by the Contractor within 24 hours.
- 2.c) Failure of the Contractor to have the required minimum number of signs, personnel, and equipment, which results in the pattern not being installed, shall not be a reason for a time extension or claim for lost time.
- 2.d) In cases of differences of opinion between the Contractor and the Inspection staff, the Contractor shall follow the directions of the Engineer. The matter shall be brought to the District Office for resolution immediately or, in the case of work after regular business hours, on the next business day.

3. Installing and Removing Traffic Control Patterns

- 3.a) Lane closures shall be installed beginning with the advance warning signs and proceeding forward toward the work area.
- 3.b) Lane closures shall be removed in the reverse order, beginning at the end of the work area, or traffic control pattern, and proceeding back toward the advance warning signs.
- 3.c) Stopping traffic may be allowed within the allowable hours stated in Section 1.08.04:
 - i. For those activities stated within the Contract.
 - ii. During paving, milling operations, or similar activities where, in the middle of the operation, it is necessary to flip the pattern to complete the operation on the other half of the roadway so traffic does not travel across the longitudinal joint or difference in roadway elevation.
 - iii. To move slow moving equipment across live traffic lanes into the work area.
- 3.d) The Contractor shall adhere to using the proper signs, placing the signs correctly, and ensuring the proper spacing of signs.
- 3.e) Additional devices are required on entrance ramps, exit ramps, and intersecting roads to warn and/or move traffic into the proper travel path prior to merging with or exiting from the mainline traffic. This shall be completed before installing the mainline pattern past the ramp or intersecting roadway.
- 3.f) Workers are prohibited from crossing the travel lanes on limited access roadways to install and remove signs or other devices on the opposite side of the roadway. Any signs or devices on the opposite side of the roadway shall be installed and removed separately.

4. Implementation of Rolling Road Block (RRB)

- 4.a) Temporary road closures using a RRB may be allowed on limited access highways for operations associated with the installation and removal of temporary lane closures. RRB may be allowed for the installation and removal of lead signs and lane tapers only and shall meet the following requirements:
 - i. Refer to the Limitation of Operations Chart provided in Section 1.08.04 for the hours allowed for implementing a RRB operation. The Contractor shall only implement a RRB operation within the hours shown in the Chart.
 - ii. In areas with good sight lines and full shoulders, signs on the side of the road opposite the traffic pattern should be installed in a separate operation.
 - iii. TMAs equipped with Arrow Boards shall be used to slow traffic to implement the RRB. State Police Officers in marked vehicles may be used to support the implementation of the RRB. The RRB shall start by having all vehicles, including TMAs and police vehicles, leave the shoulder or on-ramp and accelerate to normal roadway speeds in each lane. The vehicles will then position themselves side by side and decelerate to the RRB speed on the highway.

- iv. A Pre-Warning Vehicle, as specified elsewhere in the Contract, shall be used to advise the motorists that sign pattern installation or removal is underway.
- v. The RRB duration shall not exceed 15 minutes from the start of the traffic block until all lanes are opened as designated in the Limitation of Operations chart. If the RRB duration exceeds 15 minutes on 2 successive shifts, no further RRB will be allowed until the Contractor obtains approval for a revised installation procedure from the District.
- vi. RRB shall not be used to expand a lane closure pattern to an additional lane during the shift. The workers and equipment required to implement the additional lane closure should be staged from within the closed lane. TMAs (and State Police if available) shall be used to protect the workers installing the taper in the additional lane.
- vii. Exceptions to these work procedures may be submitted to the District Office for consideration. A minimum of 2 business days shall be allowed for review and comment by the District.
- viii. The Engineer and the Contractor will review and discuss the RRB procedures (including any revisions) in advance of the work. The implementation of the agreed upon plan will be reviewed with the State Police during the Work Zone Safety Meeting held before each shift involving temporary lane closures. If the State Police determine that alternative procedures should be implemented for traffic control during the work shift, the Department and Contractor will attempt to resolve any discrepancies with the duty sergeant at the Troop. If the discrepancies are unable to be resolved prior to the start of the shift, then the work will proceed as recommended by the Department. Any unresolved issues shall be addressed the following day.

5. Use of Arrow Boards

- 5.a) On limited access roadways, one Arrow Board shall be used for each lane that is closed. The Arrow Board shall be installed concurrently with the installation of the traffic control pattern and its placement shall be as shown on the Construction Traffic Control Plans. Additional Arrow Boards shall be deployed if sight distances are limited.
- 5.b) On non-limited access roadways, the use of an Arrow Board for lane closures is optional. The roadway geometry, sight distance, and traffic volume shall be considered in the decision to use the Arrow Board.
- 5.c) A vehicle displaying an arrow board shall be equipped with high-intensity rotating, flashing, oscillating, or strobe lights.
- 5.d) The flashing arrow mode shall be used for lane closure (merge) tapers.
- 5.e) The flashing arrow mode shall not be used for temporary alternating one-way traffic operations or to laterally shift lanes of traffic.

- 5.f)The flashing double arrow mode shall only be used for closing a center lane on a multilane roadway where adjacent left and right lanes remain open.
- 5.g) For shoulder work or roadside work near the shoulder, the Arrow Board shall be positioned in the shoulder and the flashing alternating diamond mode should be used.
- 5.h) The flashing alternating diamond caution mode should also be used when supplemental Arrow Boards are positioned in an already closed lane.

6. Use of Truck-Mounted or Trailer-Mounted Impact Attenuators (TMAs)

- 6.a) On limited access roadways, lane closures shall use a minimum of two TMAs to install and remove traffic control patterns. If two TMAs are not available, then the pattern shall not be installed.
- 6.b) On non-limited access roadways, the use of TMAs to install and remove patterns closing a lane(s) is optional. The roadway geometry, sight line distance, and traffic volume shall be considered in the decision to utilize the TMAs.
- 6.c) On limited access roadways, one TMA shall be placed on the shoulder and the second TMA shall be approximately 1,000 feet ahead blocking the lane to establish the advance and transition signing. The Arrow Board mounted on the TMA shall be in the arrow mode when taking the lane. The sign truck and workers shall be at sufficient distance ahead of the second TMA. In no case shall the TMA be used as the sign truck or a work truck. Once the transition is in place, the TMAs shall travel in the closed lane until all Portable Changeable Message Signs, signs, Arrow Boards, and cones/drums are installed. The Arrow Board mounted on the TMA should be in the flashing alternating diamond caution mode when traveling in the closed lane.
- 6.d) A TMA shall be placed prior to the first work area in the pattern. If there are multiple work areas within the same pattern, then additional TMAs shall be positioned at each additional work area as needed. The Arrow Board mounted on the TMA should be in the flashing alternating diamond caution mode when in the closed lane.
- 6.e) TMAs shall be positioned a sufficient distance prior to the workers or equipment being protected to allow for appropriate vehicle roll-ahead in the event that the TMA is hit, but not so far that an errant vehicle could travel around the TMA and into the work area. For additional placement and use details, refer to Section 18.06. Some operations, such as paving and concrete repairs, do not allow for placement of the TMA(s) within the specified distances. In these situations, the TMA(s) shall be placed at the beginning of the work area and shall be advanced as the paving or concrete operations proceed.
- 6.f) TMAs will be paid for in accordance with how the unit is used. If it is used as a TMA and is in the proper location as specified, then it will be paid for at the specified hourly rate for Truck-Mounted or Trailer-Mounted Impact Attenuator. When the TMA is used

as an Arrow Board, it will be paid for at the daily rate for Arrow Board. If a TMA is used to install and remove a pattern and is also used as an Arrow Board in the same day, then the unit will be paid for as a Truck-Mounted or Trailer-Mounted Impact Attenuator for the hours used to install and remove the pattern, typically 2 hours (1 hour to install and 1 hour to remove). If the TMA is also used as an Arrow Board during the same day, then the unit will only be paid for at the daily rate as an Arrow Board.

7. Use of Traffic Drums and Traffic Cones

- 7.a) On limited-access highways, ramps, and turning roadways:
 - i. Traffic drums shall be used for taper channelization.
 - ii. Traffic drums shall be used to delineate raised catch basins and other hazards.
 - iii. Traffic cones with a minimum height of 42 inches may be used in place of drums in the tangent section of a closed lane or shoulder.
 - iv. Traffic cones less than 42 inches in height shall not be used.
- 7.b) On all roadways:
 - i. Traffic drums shall be used in place of traffic cones in traffic control patterns that are in effect for more than a 36-hour duration.
 - ii. Traffic cones shall not be left unattended.
 - iii. Traffic cones with a minimum height of 42 inches shall be used when the posted speed limit is 45 MPH or above.
- 7.c) Typical spacing of traffic drums and/or cones shown on the Construction Traffic Control Plans in the Contract are maximum spacings and may be reduced to meet actual field conditions as required.

8. Use of Barricade Warning Lights

- 8.a) Barricade Warning Lights may be installed on channelizing devices when used in a merge taper. The Barricade Warning Lights shall flash in a sequential pattern when used in a merge taper. The successive flashing shall occur from the upstream end (beginning) of the merge taper to the downstream end (end) of the merge taper.
- 8.b) Type C Barricade Warning Lights may be used at night to delineate the edge of the travel way.

c) Type B Barricade Warning Lights shall be used on post-mounted advanced warning signs.

9. Use of Portable Changeable Message Signs (PCMS)

9.a) On limited access roadways, one PCMS shall be used in advance of the traffic control pattern for all lane closures. Prior to installing the pattern, the PCMS shall be installed and in operation, displaying the appropriate lane closure information. The PCMS shall be positioned $\frac{1}{2}$ to 1 mile ahead of the start of the lane closure taper. If the distance to the nearest exit ramp is greater than the specified $\frac{1}{2}$ to 1 mile distance, then an additional PCMS shall be positioned a sufficient distance

ahead of the exit ramp (and before the previous on-ramp where practical) to alert motorists to the work and therefore offer them an opportunity to take the exit.

- 9.b) On non-limited access roadways, the use of PCMS for lane closures is optional. The roadway geometry, sight line distance, and traffic volume shall be considered in the decision to use the PCMS.
- 9.c) PCMS should be placed off the shoulder of the roadway and behind a traffic barrier, if practical. Where a traffic barrier is not available to shield the PCMS, it should be placed off the shoulder and outside of the clear zone. If a PCMS has to be placed on the shoulder of the roadway or within the clear zone, it should be placed on the paved shoulder with a minimum of five traffic drums placed in a taper in front of it to delineate its position. The taper shall meet minimum distance requirements for a shoulder closure. The PCMS shall be protected if it is used for a continuous duration of 36 hours or more.
- 9.d) The PCMS shall be removed from the clear zone and have the display screen cleared and turned 90 degrees away from the roadway when the PCMS is no longer required.
- 9.e) The PCMS should not be used within 1,000 feet of an existing PCMS or Variable Message Sign (VMS).
- 9.f) A PCMS message shall:
 - i. consist of no more than two phases;
 - ii. contain no more than three lines of text per phase;
 - iii. have no more than eight characters per line, including spaces.
- 9.g) The PCMS should be used for specific situations that need to command the motorist's attention which cannot be conveyed with standard construction signs. The PCMS should not be used for generic messages (ex.: Road Work Ahead, Bump Ahead, Gravel Road, etc.) or for messages that need to be displayed for long periods of time, such as during stage construction. These types of messages should be displayed with construction signs. Special signs shall be coordinated with the Office of Construction and the Division of Traffic Engineering for the proper layout/dimensions required.
- 9.h) Typical messages that are allowed on the PCMS are shown below. Approval must be received from the Office of Construction for any message(s) different than the typical messages shown in Figure 1.
- 9.i) All messages shall comply with the information provided in Tables 2 and 3.



Figure 1: Typical PCMS Messages

Word Message	Standard	Word Message	Standard
	Abbreviation		Abbreviation
Access	ACCS	Minimum	MIN
Afternoon / Evening	PM	Minor	MNR
Ahead	AHD	Minute(s)	MIN
Alternate	ALT	Monday	MON
Avenue	AVE, AV	Morning / Late Night	AM
Bicycle	BIKE	Mount	MT
Blocked	BLKD	Mountain	MTN
Boulevard	BLVD	National	NATL
Bridge	BR	Normal	NORM
CB Radio	СВ	North	Ν
Center	CTR	Northbound	NBND
Center	CNTR	Oversized	OVRSZ
Chemical	CHEM	Parking	PKING
Circle	CIR	Parkway	PKWY
Compressed Natural Gas	CNG	Pavement	PVMT
Condition	COND	Pedestrian	PED
Congested	CONG	Place	PL
Construction	CONST	Pounds	LBS
Court	СТ	Prepare	PREP
Crossing	XING	Quality	OLTY
Crossing (other than	XING	Right	RT
highway-rail)	7 m vo	iught	
Downtown	DWNTN	Road	RD
Drive	DR	Roadwork	RDWK
East	Е	Route	RT, RTE
Eastbound	EBND	Saint	ST
Electric Vehicle	EV	Saturday	SAT
Emergency	EMER	Service	SERV
Entrance, Enter	ENT	Shoulder	SHLDR
Exit	EX	Slippery	SLIP
Express	EXP	South	S
Expressway	EXPWY	Southbound	SBND
Feet	FT	Speed	SPD
Freeway	FRWY, FWY	State, county, or other	[Route Abbreviation
		non-US or non-Interstate	determined by highway
		numbered route	agency]**
Friday	FRI	Street	ST
Frontage	FRNTG	Sunday	SUN
Hazardous	HAZ	Telephone	PHONE
Hazardous Material	HAZMAT	Temporary	TEMP
High Occupancy Vehicle	HOV	Terrace	TFR
Highway	HWY	Thruway	THWY
Highway_Rail Grada	RR XING	Thursday	THURS
Crossing		Thuisuay	1110KS
CIUSSIIIg			

Table 2: Acceptable Abbreviations

Hospital	HOSP	Tons of Weight	Т
Hour(s)	HR, HRS	Traffic	TRAF
Information	INFO	Trail	TR
International	INTL	Travelers	TRVLRS
Interstate	I-	Tuesday	TUES
Junction / Intersection	JCT	Turnpike	ТРК
Lane	LN	Two-Way Intersection	2-WAY
Left	LFT	Two-Wheeled Vehicles	CYCLES
Liquid Propane Gas	LP-GAS	Upper	UPR
Local	LOC	US Numbered Route	US
Lower	LWR	Vehicle(s)	VEH, VEHS
Maintenance	MAINT	Warning	WARN
Major	MAJ	Wednesday	WED
Maximum	MAX	West	W
Mile(s)	MI	Westbound	WBND
Miles Per Hour	MPH		

** A space and no dash shall be placed between the abbreviation and the number of the route.

Table 3: Unacceptable Abbreviations

Unacceptable Abbreviation	Intended Word	Common Misinterpretation
ACC	Accident	Access (Road)
CLRS	Clears	Colors
DLY	Delay	Daily
FDR	Feeder	Federal
L	Left	Lane (Merge)
LT	Light (Traffic)	Left
PARK	Parking	Park
POLL	Pollution (Index)	Poll
RED	Reduce	Red
STAD	Stadium	Standard
WRNG	Warning	Wrong

10. Use of State Police Officers

- 10.a) State Police may be used only on limited access highways and secondary roadways that are under their primary jurisdiction. A minimum of one Officer may be used per critical sign pattern; however, a State Police presence is not required. Shoulder closures and right lane closures can generally be implemented without the presence of a State Police Officer. Left lane closures may also be implemented without State Police presence in areas with only moderate traffic and wide, unobstructed medians. It may be desirable to have a State Police presence, when available, under specific situations, such as nighttime lane closures; left lane closures with minimal width for setting up advance signs and staging; lane and shoulder closures on turning roadways/ramps or mainline where sight distance is minimal; and closures where extensive turning movements or traffic congestion regularly occur; however, they are not required.
- 10.b) If a State Police presence is provided, once the pattern is in place, the State Police Officer should be positioned in a non- hazardous location in advance of the pattern to provide advance warning to the motorist. If traffic backs up beyond the beginning of the pattern, then the State Police Officer shall reposition so that they are located prior to the backup. The State Police Officer should not be located immediately behind or within the roll ahead area of any TMA or within the work zone buffer area. The State Police Officer shall not be positioned in such a way that the State Police Officer obstructs any construction warning signs or PCMS from view of the motorist.
- 10.c) Other functions of the State Police Officer(s) may include:
 - i. Assisting construction vehicles entering and exiting the work area.
 - ii. Enforcement of motor vehicle laws within the work area, if specifically requested by the Engineer.
- 10.d) State Police Officers assigned to a work site shall take direction from the Engineer.

SERIES 16 SIGNS				
H CONSTRUCTION AHEAD ROAD USE RESTRICTED STATE LIABILITY LIMITED GENERAL STATUTES SEC 13a-115, 13a-145 COMMISSIONER OF TRANSPORTATION W H 16-E 80-1605 84" x 60" 16-H 80-1608 60" x 42" 16-M 80-1613 30" x 24"	W CONSTRUCTION AHEAD SIDEWALK USE RESTRICTED STATE LIABILITY LIMITED GENERAL STATUTES SEC 130-115, 130-145 COMMISSIONER OF TRANSPORTATION W H 16-S 80-1619 48" x 30"			
 SIGN 16-S SHALL BE USED ON ALL PROJECTS THAT REQUIRE SIDEWALK RECONSTRUCTION OR RESTRICT PEDESTRIAN TRAVEL ON AN EXISTING SIDEWALK. SERIES 16 SIGNS SHALL BE INSTALLED IN ADVANCE OF THE TRAFFIC CONTROL PATTERNS. SERIES 16 SIGNS SHOULD BE LOCATED TO ALLOW MOTORISTS THE OPPORTUNITY TO AVOID A WORK ZONE. SERIES 16 SIGNS SHOULD BE INSTALLED ON MAJOR INTERSECTING ROADWAYS THAT APPROACH THE WORK ZONE. ON LIMITED-ACCESS HIGHWAYS, THESE SIGNS SHOULD BE LOCATED IN ADVANCE OF THE NEAREST UPSTREAM EXIT RAMP AND ON ANY ENTRANCE RAMPS PRIOR TO OR WITHIN THE WORK ZONE 				
SIGNS 16-E AND 16-H SHALL BE POST-MOUNTED.				
SIGN 16-E SHALL BE USED ON ALL FREEWAYS AND E	EXPRESSWAYS.			
SIGN 16-H SHALL BE USED ON ALL RAMPS, OTHER STATE ROADWAYS AND MAJOR TOWN/CITY ROADWAYS.				
SIGN 16-M SHALL BE USED ON OTHER TOWN ROADWAYS.				
[CONSTRUCTION TRAFFIC CONTROL PLAN			
	SERIES 16 SIGNS			
CONNECTICUT DEPARTMENT OF TRANSPORTATION	Jun JJunt Travel Economic RE			

BUREAU OF ENGINEERING & CONSTRUCTION

APPROVED Trany of Figure Trans L Figure P. 2013.10.02.16.20.32-04:00"



	N	OTES FOR	TRAFFIC	CONTROL PLANS	
1.	IF A TRAFFIC STOP (A) SHALL BE INST	PAGE OCCURS IN ALLED IN ADVAN	N ADVANCE OF ICE OF THE STO	SIGN (Å), THEN AN ADDITIONAL SIGN	
2.	SIGNS (A), (A), AND INSTALLED IN ADV THAT IS ENCOMPAS	SHOULD BE ANCE TO DESIGN SED ON THIS P	OMITTED WHEN NATE A LARGER LAN.	THESE SIGNS HAVE ALREADY BEEN WORK ZONE THAN THE WORK ZONE	
3.	SEE TABLE 1 FOR	ADJUSTMENT OF	TAPERS IF NEC	ESSARY.	
4.	TRAFFIC CONES AN	ID PORTABLE CO	NSTRUCTION SI	GNS SHALL NOT BE LEFT UNATTENDED.	
5.	ALL CONFLICTING S SHALL BE COVERED UNCOVERED WHEN	SIGNS WITHIN TH WITH AN OPAC THE ROADWAY ;	HE LIMITS OF A QUE MATERIAL V / LANE CLOSURE	ROADWAY / LANE CLOSURE AREA /HILE THE CLOSURE IS IN EFFECT, AND IS RE-OPENED TO ALL LANES OF TRAFFIC.	
6.	IF THIS PLAN REM ANY EXISTING CON AND TEMPORARY P SHALL BE INSTALLE	AINS IN CONTINU IFLICTING PAVEM AVEMENT MARKIN D.	JOUS OPERATIO ENT MARKINGS IGS THAT DELIN	N FOR MORE THAN 48 HOURS, THEN SHALL BE ERADICATED OR COVERED, IEATE THE PROPER TRAVELPATHS	
7.	DISTANCES BETWER	EN SIGNS IN TH BAN ROADS (SPI	E ADVANCE WA EED LIMIT ≼ 40	RNING AREA MAY BE REDUCED TO 100' O MPH).	
8.	 IF THIS PLAN IS TO REMAIN IN OPERATION FROM SUNSET TO SUNRISE, INSTALL BARRICADE WARNING LIGHTS - HIGH INTENSITY ON ALL POST-MOUNTED DIAMOND SIGNS IN THE ADVANCE WARNING AREA. 				
9.	 A PORTABLE CHANGEABLE MESSAGE SIGN SHALL BE INSTALLED ONE HALF MILE TO ONE MILE IN ADVANCE OF THE LANE CLOSURE TAPER. 				
10	SIGN (P) SHALL BE THE BOTTOM OF T	MOUNTED A MIN HE SIGN.	IIMUM OF 7 FE	ET FROM THE PAVEMENT SURFACE TO	
	TABLE 1 - MININ	1UM TAPER LENG	iTHS		
ſ	POSTED SPEED LIMIT (MILES PER HOUR)	MINIMUM TAPER LE	NGTH FOR		
ſ	30 OR LESS 35	180' 245'			
	40	320'			
	45 50	540' 600'			
	55	660'			
L	65	780			
				CONCEPTION TRAFFIC CONTROL PLAN	
			2011 F. 1101-		
CONNEC	TICUT DEPARTMENT OF	TRANSPORTATION	SCALE: NONE	Tury & Figuety, Trasy L Fogath, P.E.	
BUREAU	OF ENGINEERING & CO	ONSTRUCTION		APPROVED PRINCIPAL ENGINEER	


Article 9.71.05 – Basis of Payment *is supplemented by the following:*

The temporary relocation of signs and supports, and the furnishing, installation and removal of any temporary supports shall be paid for under the item "Maintenance and Protection of Traffic". Temporary overhead sign supports and foundations shall be paid for under the appropriate item(s).

The cost of furnishing, installing, and removing the material for the 4H:1V traversable slope shall be paid for under the item "Maintenance and Protection of Traffic".

TOWN OF STONINGTON, CONNECTICUT

INVITATION TO BID FOR REHABILITATION OF WHITE ROCK ROAD BRIDGE #04182 ITB: #2025-002

PROPOSER'S LEGAL STATUS DISCLOSURE

Please fully complete the applicable section below, attaching a separate sheet if you need additional space.

For purposes of this disclosure, "permanent place of business" means an office continuously maintained, occupied and used by the proposer's regular employees regularly in attendance to carry on the proposer's business in the proposer's own name. An office maintained, occupied and used by a proposer only for the duration of a contract will not be considered a permanent place of business. An office maintained, occupied and used by a person affiliated with a proposer will not be considered a permanent place of business of the proposer.

IF A SOLELY OWNED BUSINESS:

Proposer's Full Legal Name		
Street Address		
Mailing Address (if different	from Street Address)	
Owner's Full Legal Name		
Number of years engaged in	ousiness under sole pr	oprietor or trade name
Does the proposer have a "pe	rmanent place of busi	ness" in Connecticut, as defined above?
Yes	No	

If yes, please state the full street address (not a post office box) of that "permanent place of business."

IF A CORPORATION:

Proposer's Full Legal Name			
Street Address			
Mailing Address (if different from Street Address)			
Owner's Full Legal Name			

	Secretary	Chief Financial Officer
Does the pr	oposer have a "permanent place Yes	of business" in Connecticut, as defined aNo
	If yes, please state the full str "permanent place of business	eet address (not a post office box) of tha ."
IMITED L	IABILITY COMPANY:	
Proposer's	Full Legal Name	
Street Addr	ess	
Mailing Ad	dress (if different from Street Ad	dress)
Owner's Fu	Ill Legal Name	
Number of	years engaged in business	
Names of C	Current Manager(s) and Member(s)
Name & Ti	tle (if any)	Residential Address (street only
Name & Ti	tle (if any)	Residential Address (street only
Name & Ti	tle (if any)	Residential Address (street only
	tle (if any)	Residential Address (street only
Name & Ti		

If yes, please state the full street address (not a post office box) of that "permanent place of business."

IF A PARTNERSHIP:

Proposer's Ful	 11 Legal Name	
Street Address	<u> </u>	
Mailing Addre	ess (if different from Street A	Address)
Owner's Full	Legal Name	lui 055/
Number of ve	ars engaged in business	
Names of Cur	rent Partners	
Name & Title	(if any)	Residential Address (street only)
Name & Title	(if any)	Residential Address (street only)
Name & Title (if any)		Residential Address (street only)
Does the prop	oser have a "permanent plac	e of business" in Connecticut, as defined
above?		
		N.
	Y es	N0
	If yes, please state the full s "permanent place of busine	treet address (not a post office box) of that ss."
	Proposer's Fu	ıll Legal Name
	(print) Name and T	itle of Proposer's Authorized Representative
	(signature) Proposer's F	Representative, Duly Authorized

Date

END OF LEGAL STATUS DISCLOSURE FORM

TOWN OF STONINGTON, CONNECTICUT

INVITATION TO BID FOR REHABILITATION OF WHITE ROCK ROAD BRIDGE #04182 ITB: #2025-002

PROPOSER'S NON-COLLUSION AFFIDAVIT FORM

PROPOSAL FOR:

The undersigned proposer, having fully informed himself/herself/itself regarding the accuracy of the statements made herein, certifies that:

- (1) the proposal is genuine; it is not a collusive or sham proposal;
- (2) the proposer developed the proposal independently and submitted it without collusion with, and without any agreement, understanding, communication or planned common course of action with, any other person or entity designed to limit independent competition;
- (3) the proposer, its employees and agents have not communicated the contents of the proposal to any person not an employee or agent of the proposer and will not communicate the proposal to any such person prior to the official opening of the proposal; and
- (4) no elected or appointed official or other officer or employee of the Town of Stonington is directly or indirectly interested in the proposer's proposal, or in the supplies, materials, equipment, work or labor to which it relates, or in any of the profits thereof.

The undersigned proposer further certifies that this affidavit is executed for the purpose of inducing the Town of Stonington to consider its proposal and make an award in accordance therewith.

Legal Name of Proposer (signature)	Proposer's Representative, Duly Authorized
	Name of Proposer's Authorized Representative
	Title of Proposer's Authorized Representative
	Date
Subscribed and sworn to before me this	day of_, 20
	Notary Public My Commission Expires:

END OF NON-COLLUSION AFFIDAVIT FORM

EXHIBIT C

TOWN OF STONINGTON, CONNECTICUT

INVITATION TO BID FOR REHABILITATION OF WHITE ROCK ROAD BRIDGE #04182 ITB: #2025-002

PROPOSER'S STATEMENT OF REFERENCES FORM

Provide at least three (3) references:

BUSINESS NAME	
ADDRESS	
CITY, STATE	
TELEPHONE:	
INDIVIDUAL CONTACT NAME AND POSITION	

BUSINESS

NAME

ADDRESS

CITY, STATE

TELEPHONE:

INDIVIDUAL CONTACT NAME AND POSITION

BUSINESS

NAME

ADDRESS

CITY, STATE

TELEPHONE:

INDIVIDUAL CONTACT NAME AND POSITION

END OF STATEMENT OF REFERENCES FORM

TOWN OF STONINGTON, CONNECTICUT

INVITATION TO BID FOR REHABILITATION OF WHITE ROCK ROAD BRIDGE #04182 ITB: #2025-002

REOUIRED DISCLOSURES

1. Exceptions to/Clarifications of/Modifications of the INVITATION TO BID

_____This proposal does not take exception to or seek to clarify or modify any requirement of the INVITATION TO BID, including but not only any of the Contract Terms set forth in the Standard Instructions to Proposers. The proposer agrees to each and every requirement, term, provision and condition of this INVITATION TO BID.

OR

_____ This proposal takes exception(s) to and/or seeks to clarify or modify certain of the INVITATION TO BID requirements, including but not only the following Contract Terms set forth in the Standard Instructions to Proposers. Attached is a sheet fully describing each such exception.

2. <u>State Debarment List</u>

Is the proposer on the State of Connecticut's Debarment List?

____Yes ____No _____Department of Consumer Protection License No. _____CT Secretary of State Business ID No.

3. Occupational Safety and Health Law Violations

Has the proposer or any firm, corporation, partnership or association in which it has an interest (1) been cited for three (3) or more willful or serious violations of any occupational safety and health act or of any standard, order or regulation promulgated pursuant to such act, during the three-year period preceding the proposal (provided such violations were cited in accordance with the provisions of any state occupational safety and health act or the Occupational Safety and Health Act of 1970, and not abated within the time fixed by the citation and such citation has not been set aside following appeal to the appropriate agency or court having jurisdiction) or (2) received one or more criminal convictions related to the injury or death of any employee in the three-year period preceding the proposal? ____Yes ____No

If "yes," attach a sheet fully describing each such matter.

4. <u>Arbitration/Litigation</u>

Has either the proposer or any of its principals (current or former, regardless of place of employment) been involved for the most recent ten (10) years in any pending or resolved arbitration or litigation? Has either the proposer or any of its principals (current or former, regardless of place of employment) been party to a lawsuit or claim against the Town of Stonington, in the most recent ten (10) years? If yes to either, please explain.

If "yes," attach a sheet fully describing each such matter.

5. <u>Criminal Proceedings</u>

Has the proposer or any of its principals (current or former, regardless of place of employment) ever been the subject of any criminal proceedings?

If "yes," attach a sheet fully describing each such matter.

6. <u>Ethics and Offenses in Public Projects or Contracts</u>

Has either the proposer or any of its principals (current or former, regardless of place of employment) ever been found to have violated any state or local ethics law, regulation, ordinance, code, policy or standard, or to have committed any other offense arising out of the submission of proposals or bids or the performance of work on public works projects or contracts?

If "yes," attach a sheet fully describing each such matter.

7. <u>Federal Debarment List</u>

Is the proposer on the Federal Government's Debarment List?

____Yes ____No _____*Federal Unique Entity ID#*

8. <u>MBE/WBE/SBE</u>

Is the proposer an MBE?	Yes	No
Is the proposer an WBE?	Yes	No
Is the proposer an SBE? _	Yes	No

END OF REQUIRED DISCLOSURES FORM

TOWN OF STONINGTON, CONNECTICUT

INVITATION TO BID FOR REHABILITATION OF WHITE ROCK ROAD BRIDGE #04182 ITB: #2025-002

AFFIRMATIVE ACTION/EEO AFFIDAVIT

Concerning Equal Employment Opportunities and/or Affirmative Action Policy I/we, the respondent, certify to the TOWN OF STONINGTON that:

- 1. I/we are in compliance with the equal opportunity clause as set forth in Connecticut state law (Executive Order No. Three, <u>http://www.cslib.org/exeorder3.htm</u>).
- 2. I/we do not maintain segregated facilities.
- 3. I/we have filed all required employer's information reports.
- 4. I/we have developed and maintain written affirmative action programs.
- 5. I/we list job openings with federal and state employment services.
- 6. I/we attempt to employ and advance in employment qualified handicapped individuals.
- 7. I/we are in compliance with the Americans with Disabilities Act.
- 8. I/we (check one)

have an Affirmative Action Program, or

employ 10 people or fewer

Legal Name of Bidder:

END OF AFFIDAVIT FORM

TOWN OF STONINGTON, CONNECTICUT **INVITATATION TO BID FOR REHABILITATION OF WHITE ROCK ROAD BRIDGE #04182 SCHEDULE OF PRICES**

DATE OF BID OPENING:

Note:

NO BIDS WILL BE ACCEPTED AFTER 2:00 P.M. "NO EXCEPTIONS" TIME: The bidder shall fill in, under the column "Unit Prices Bid," the unit prices, written in words and in numbers, for which he proposes to perform the various items of work called for, and under the column headed "Amount," the amount of each of the items at the unit price bid. Approximate Unit Prices Bid

Total Amount ltem Numbe Items Unit Quantities Figures Writing (Figures) 0201001 Clearing and Grubbing .s. 0202529 .F. 65 Cut Bituminous Concrete Pavement 0219011 Sedimentation Control at Catch Basin 2 Ea. 0406171 HMA S0.5 Ton 220 0406173 HMA S0.25 70 Ton 0406194 Joint and Crack Sealing of Bituminous Concrete Pavement F 525 A 0406236 260 Material for Tack Coat Gal 0409001 Fine Milling of Bituminous Concrete (0" - 4") S.Y 1400 0520036 Asphaltic Plug Expansion Joint System ΥE 15 0520041 ...F. 35 Preformed Joint Seal 0522202 ...F 35 2" Elastomeric Compression Seal C E 52 0601072 Surface Repair Concrete 0601074 C.F. 702 Structural Repair Concrete 0602030 1700 Deformed Steel Bars - Galvanized _bs 0707009 Membrane Waterproofing (Cold Liquid Elastomeric) S.Y 945 0970006 Trafficperson (Municipal Police Officer)(Estimated Cost) Est 0970007 Trafficperson (Uniformed Flagger) 960 Hr 0971001 ..s А Maintenance and Protection of Traffic 1 0975004 Mobilization and Project Closeout .s 1 0977001 Traffic Cone 100 Ea. 0978002 Traffic Drums Fa 50 0980020 Construction Surveying .s 1 1210101 840 4" White Epoxy Resin Pavement Markings .F 1210102 .F 4" Yellow Epoxy Resin Pavement Markings 840 1220027 Construction Signs SF 200

A - Equals item with special provisons

Kindly insert here the total amount of your Bid \$ _

It is understood that the unit prices shall govern in case of discrepancy between the

unit-prices and this amount. This bid includes addenda no.(s) : Total:

EXHIBIT F

TOWN OF STONINGTON, CONNECTICUT

INSURANCE REQUIREMENTS

Contractor shall purchase and maintain without interruption from the date of commencement of the Services until the date of final payment for the last Project to be completed and for the additional periods specified herein, the following insurance and all insurance that may be required under any Applicable Laws, written by insurance companies with a rating of at least an "A-VIII" in the latest addition of A.M. Best. If Contractor fails to obtain and keep in force the insurance required hereunder, Owner may obtain and maintain the required insurance in the name of Contractor and the cost thereof shall be payable by Contractor to Owner on demand. Failure to maintain the insurance coverage required or failure to comply fully with any of the insurance provisions as may be necessary to carry out the terms and provisions of the Agreement shall be deemed to be a material breach of the Agreement. Insurance requirements are independent of, and in addition to, Contractor's liability under the Agreement. The limits and coverages set forth in this Exhibit are the minimum requirements under the Agreement. Except for Professional Liability and Workers Compensation insurance which cannot have additional insureds, the inclusion of these minimum requirements shall not be interpreted to restrict the rights of the Additional Insureds to the stated minimum coverage amounts in the event the Contractor maintains coverage at higher limits. Nothing in the Agreement shall be deemed to limit Contractor's liability under the Agreement to the limits of the insurance coverages required hereunder. Contractor shall be solely responsible for payment of all deductible or retention amounts pertaining to any insurance required hereby. If any policy is written on a "Claims Made" basis, the policy must be continually renewed for a minimum of two (2) years from the completion date of the contract. If the policy is replaced and/or the retroactive date is changed, then the expiring policy must be endorsed to extend the reporting period for claims for the policy in effect during the contract for two (2) years from the completion date. Capitalized terms in this Exhibit that are not specifically defined in this Exhibit shall have the meanings set forth in the Agreement to which this Exhibit is attached.

- 1. **Commercial General Liability** ("CGL") insurance on an "occurrence" basis for bodily injury and property damage that may arise out of or result from Contractor's operations and completed operations under the Agreement, whether such operations be by Contractor or by anyone directly or indirectly employed by the Contractor, or by anyone for whose acts the Contractor may be liable. Such insurance shall include, along with other coverages available to the Contractor or under the CGL policy, each of the following:
 - (a) At a minimum, the following limits and coverages:
 - (i) \$1,000,000 each occurrence or the full per occurrence limits of the policy, whichever is greater
 - (ii) \$1,000,000 personal and advertising injury or the full personal and advertising injury limits of the policy, whichever is greater
 - (iii) \$5,000,000 general aggregate or the full general aggregate limits of the policy, whichever is greater

- (iv) \$300,000 damage to rented premises
- (v) \$10,000 Medical Expenses
- (b) Coverage for ongoing operations, independent Contractors, and any persons or entities performing work on behalf of Contractor.
- (c) Products and completed operations coverage, which coverage shall be maintained in effect for a period equivalent to the statute of repose for the state in which the Project is located.
- (d) An appropriate endorsement acceptable to Owner stating that "limits apply per project."
- (e) Contractual liability coverage.
- (f) Contain a severability or separation of insureds clause.
- (g) The insurance maintained by Contractor shall be primary and noncontributory, and any other insurance or self-insurance maintained by Owner or the Additional Insureds is in excess and shall not contribute to Contractor's insurance in all instances regardless of any like insurance that Owner or the Additional Insureds may have.
- (h) No exclusion or limitation for residential construction.
- (i) Waiver of Subrogation endorsement in favor of Owner.
- 2. **Commercial Automobile Liability** coverage to include owned, hired and nonowned automobile liability insurance covering all use of all automobiles, trucks and other motor vehicles utilized by Contractor, including each of the following:
 - (a) A combined single limit for bodily injury and property damage of \$1,000,000 per accident.
 - (b) Coverage for upset, overturn and collision coverage related to pollution events (applying to the vehicle, trailer or other attachments to vehicle and extend to cargo/waste carried and to Contractors or others providing services to Contractor).
 - (c) Waiver of Subrogation endorsement in favor of Owner.
- 3. Follow-form **umbrella** (excess) liability insurance with a limit of \$5,000,000 each occurrence in excess of the general liability, employer's liability, workers' compensation liability, and business automobile liability coverages required of Contractor under this Exhibit. Such insurance shall contain a provision that it will not be more restrictive than the primary insurance. Aggregate limits of liability shall apply separately with respect to the Project.
- 4. **Workers' Compensation insurance**, including employer's liability, for all persons whom Contractor employs (or uses as contract labor if the Contractor is uninsured) in carrying out any Work. Such insurance shall be in strict compliance with the requirements of the most current and applicable workers' compensation insurance laws in effect from time to time in the state(s) where the Services are performed, and shall include the following:

- (a) Coverage A (Workers' Compensation) Statutory
- (b) Coverage B (Employer's Liability) At a minimum, the following limits and coverages:
 - At a minimum, the following minis and coverages: (i) 500,000 for each assidant, for hadily injury.
 - (i) \$500,000 for each accident, for bodily injury by accident
 - (ii) \$500,000 for each employee, for bodily injury by disease
 - (iii) \$500,000 for each disease policy limit
- (c) Waiver of Subrogation endorsement in favor of Owner.
- (d) Contain endorsements that provide:
 - (i) Voluntary Compensation
- 5. **Property insurance** providing coverage for property in which Contractor retains the risk of loss including their own equipment, (stationary or mobile), tools (including employee tools), supplies, materials, or any other property owned or leased by Contractor. If Contractor chooses to self-insure any of the property described under this Paragraph, it is agreed that Contractor shall hold Owner and its representatives, agents and employees harmless for any loss sustained by the Contractor of its equipment, tools, supplies, materials and other property of Contractor whether owned or leased.
- 6. Additional Insureds: Commercial General Liability, Umbrella Liability and Comprehensive Automobile Liability insurance policies will name the Owner, and its respective employees, agents and representatives as additional insureds. Certificates of Insurance showing such coverages and additional insureds, along with copies of appropriate additional insured endorsements will be filed with the Owner on or before the execution of the Agreement. At any time requested by the Owner, the Contractor will provide to the Owner a copy of any of the aforementioned policies, and any endorsements or amendments thereto.
- 7. Contractor's pollution liability insurance: N/A
- 8. **Notice of Cancellation**: The Contractor shall provide written notification to the Owner of the cancellation or expiration of any insurance required by this Exhibit. The Contractor shall provide such written notice within five (5) business days of the date the Contractor is first aware of the cancellation or expiration or is first aware that the cancellation or expiration is threatened or otherwise may occur, whichever comes first. Each insurance policy will state that the insurance company agrees to investigate and defend the insured against all claims for damages to the extent that all alleged damages might be covered by insurance.
- 9. **Contractors and Contractors Insurance**: Contractor shall require that each Contractor and sub-contractor under contract with the Contractor comply with the insurance requirements above, except that a Contractor or sub-contractor that provides no professional services for any Project shall not be required to provide Professional Services Liability Insurance. Before permitting any of its Contractors or sub-contractors to perform any Services, Contractor shall obtain a certificate of insurance from each such Contractor and sub-contractor evidencing that such

Contractor or sub-contractor, as applicable, has obtained the required minimum insurance and has added those entities as additional insureds with respect to the Commercial General Liability, umbrella liability, and Commercial Automobile Liability insurance, and all other insurances as required herein. All policies of Contractors and sub-contractors shall include a waiver of any right of subrogation of the insurers thereunder against Contractor, the Owner and the other Additional Insureds.

INSURANCE REQUIREMENTS FOR SUBCONTRACTORS

The Contractor shall ensure that all tiers of their subcontractors shall procure and maintain insurance in like form and amounts including the Additional Insured requirements, as set forth above. Copies of the certificates of insurance must be provided to the Town prior to the subcontractor entering the jobsite.

CERTIFICATES ON INSURANCE & POLICY ENDORSEMENTS

Original, completed Certificates of Insurance must be presented to the Town prior to contract issuance, and must name the Town as an additional insured. The Contractor agrees to provide replacement/renewal certificates at least 60 days prior to the expiration of any policy. Should any of the above-described policies be cancelled before the expiration date, written notice must be given to the Town 30 days prior to cancellation. *A copy of the insurance endorsement naming the Town as an additional insured must also be provided to the Finance Director along with copies of the endorsements within the policy naming the Town as an additional insured.* Required limits are scheduled out below:

REQUIRED LIMITS

- - - -

General Liability*	Each Occurrence	(Minimum Limits) \$1,000,000
	General Aggregate	\$5,000,000
	Products/Completed Operations Aggregate	\$5,000,000
	Personal and ADV Injury	\$1,000,000
	Damage to Rented Premises	\$ 300,000
	Medical Expense (anyone person)	\$ 10,000
Auto Liability*	Combined Single Limit	

	Each Accident	\$1,000,000
	Aggregate	\$1,000,000
Umbrella*	Each Occurrence	\$5,000,000
Excess Liability)	Aggregate	\$5,000,000
Contractor's Pollution Liability Insurance	Each Occurrence / Aggregate	N/A
Workers' Compensation and Employers' Liability	WC Statutory Limits EL Each EL Disease Each Employee EL Disease Policy Limit	\$500,000 \$500,000 \$500,000

APPENDICES

Appendix A

IX.

Plan for the Rehabilitation of White Rock Road Bridge #04182



TOWN OF STONINGTON

PLAN FOR REHABILITATION OF BRIDGE #04182 WHITE ROCK ROAD OVER PAWCATUCK RIVER

ROADWAY RECONSTRUCTION WHITE ROCK ROAD STATION 0+50.00 TO STATION 4+50.00 TO BE MAINTAINED BY THE TOWN OF STONINGTON



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STANDARD DRAWINGS		
TR-1205_01	DELINEATION, DELINEATORS AND OBJECT MARKER DETAILS	
TR-1208_01	SIGN PLACEMENT AND RETROREFLECTIVE STRIP DETAILS	
TR-1208_02	METAL SIGN POSTS AND SIGN MOUNTING DETAILS	
TR-1210_04	PAVEMENT MARKING LINES AND SYMBOLS	
TR-1210_08	PAVEMENT MARKINGS FOR NON FREEWAYS	
TR-1220_01	SIGNS FOR CONSTRUCTION AND PERMIT OPERATIONS	
TR-1220_02	CONSTRUCTION SIGN SUPPORTS AND CHANNELIZING DEVICES	



TECHNICAL SPECIFICATIONS: STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADS, BRIDGES, FACILITIES AND INCIDENTAL CONSTRUCTION (FORM 818 DATED 2020) AND LATEST SUPPLEMENTAL SPECIFICATIONS DATED JULY, 2023 THERETO, AS WELL AS ANY SPECIAL PROVISIONS.

DESIGN STANDARDS: AASHTO POLICY ON THE GEOMETRIC DESIGN OF HIGHWAYS AND STREETS, DATED 2004 AND THE CONNECTICUT DEPARTMENT OF TRANSPORTATION HIGHWAY DESIGN MANUAL DATED 2003.

SURVEY: ALL COORDINATES ON THE PROJECT ARE BASED ON NAD 83. ALL ELEVATIONS ARE BASED ON NAVD 1988.

CONNECTICUT DEPARTMENT OF TRANSPORTATION OR TOWN OF STONINGTON BIDDING AND OTHER INFORMATION AND DOCUMENTS WHICH ARE OBTAINED THROUGH THE INTERNET, WORLD WIDE WEB SITES OR OTHER SOURCES ARE NOT TO BE CONSTRUED TO BE OFFICIAL INFORMATION FOR THE PURPOSES OF BIDDING OR CONDUCTING OTHER BUSINESS WITH THE TOWN OF STONINGTON.

IT IS THE RESPONSIBILITY OF EACH BIDDER AND ALL OTHER INTERESTED PARTIES TO OBTAIN ALL BIDDING RELATED INFORMATION AND DOCUMENTS FROM OFFICIAL SOURCES WITHIN THE TOWN OF STONINGTON.

PERSONS AND/OR ENTITIES WHICH REPRODUCE AND/OR MAKE SUCH INFORMATION AVAILABLE BY ANY MEANS ARE NOT AUTHORIZED BY THE TOWN OF STONINGTON TO DO SO AND MAY BE LIABLE FOR CLAIMS RESULTING FROM THE DISSEMINATION OF UNOFFICIAL, INCOMPLETE AND/OR INACCURATE INFORMATION.



DESIGNED BY WMC CONSULTING ENGINEERS

SUBMITTED BY

KEEGAN ELDER

DATE 02/26/2024

TOWN ENGINEER - TOWN OF STONINGTON

CHRISTOPHER GREENLAW, P.E.

DATE

THE INFORMATION INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS	WHEREVER THE PAY UNITS IN THE
IS BASED ON LIMITED INVESTIGATIONS BY THE TOWN OF STONINGTON IS NO WAY	LEFT COLUMN APPEAR ON THE
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OF QUANTITIES OF WORK WHICH WILL BE REQUIRED.	SHALL BE CONSTRUED TO MEAN THE
	EQUIVALENT PAY UNITS IN THE RIGHT COLUMN ON THE PROPOSAL FORM.

FOR THE CONSTRUCTION OF REHABILITATION OF BRIDGE NO. 04182, WHITE ROCK ROAD OVER PAWCATUCK RIVER

							R	OAD	WAY	ITE	MS			
	ITEM NUMBER	0201001	0202529	0219011A	0406171	0406236	0409001	00270007	0971001A	0975004	0977001	0978002	0980020	1210101
	ITEM DESCRIPTION	CLEARING AND GRUBBING	CUT BITUMINOUS CONCRETE PAVEMENT	SEDIMENTATION CONTROL AT CATCH BASIN	HMA S0.5	MATERIAL FOR TACK COAT	FINE MILLING OF BITUMINOUS CONCRETE (0" TO 4")	TRAFFICPERSON (UNIFORMED FLAGGER)	MAINTENANCE AND PROTECTION OF TRAFFIC	MOBILIZATION AND PROJECT CLOSEOUT	TRAFFIC CONE	TRAFFIC DRUMS	CONSTRUCTION SURVEYING	4" WHITE EPOXY RESIN PAVEMENT MARKING
	UNIT	L.S.	L.F.	Ea.	Ton	Gal.	S.Y.	Hr	L.S.	L.S.	Ea.	Ea.	L.S.	L.F.
ТО	TAL	L.S.	65	2	95	85	455	960	L.S.	L.S.	100	50	L.S.	840
TO	TAL	L.S.	65	2	95	85	455	960	L.S.	L.S.	100	50	L.S.	840

							STR	υстυ	RE IT	EMS					
	ITEM NUMBER	0406171	0406173	0406194A	0406236	0409001	0520036A	0520041A	0522202	0601072	0601074	0602030	0707009A		
	ITEM DESCRIPTION	HMA S0.5	HMA S0.25	JOINT AND CRACK SEALING OF BITUMINOUS CONCRETE PAVEMENT	MATERIAL FOR TACK COAT	FINE MILLING OF BITUMINOUS CONCRETE (0" TO 4")	ASPHALTIC PLUG EXPANSION JOINT SYSTEM	PREFORMED JOINT SEAL	2" ELASTOMERIC COMPRESSION SEAL	SURFACE REPAIR CONCRETE	STRUCTURAL REPAIR CONCRETE	DEFORMED STEEL BARS-GALVANIZED	MEMBRANE WATERPROOFING (COLD LIQUID ELASTOMERIC)		
	UNIT	Ton	Ton	L.F.	Gal.	S.Y.	C.F.	L.F.	L.F.	C.F.	C.F.	Lbs.	S.Y.		
тс	DTAL	125	70	525	175	945	15	35	35	52	702	1700	945		
тс	DTAL	125	70	525	175	945	15	35	35	52	702	1700	945		

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE TOWN AND IS IN NO WAY WARRANTED TO INDICATE THE TRUE CONDITIONS OR ACTUAL QUANTITIES OR DISTRIBUTION OF QUANTITIES OF WORK WHICH WILL BE REQUIRED.

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l.f.	L.F.	
ton	TON	
s.y.	S.Y.	
lb.	LB.	
s.f.	S.F.	
gal.	GAL.	
c.f.	C.F.	
c.i.	C.I.	

1210102 1220027 4" YELLOW EPOXY RESIGN PAVEMENT MARKINGS CONSTRUCTION SIG L.F. S.F. 840 200 840 200

A WMC	PREPARED FO
CONSULTING ENGINEERS	TOWN OF STONING
WENGELL, McDONNELL & COSTELLO	152 ELM STREET
87 HOLMES ROAD NEWINGTON, CT 06111 (860) 667-9624	STONINGTON, CT 063
91	

- IN THE TOWN OF STONINGTON, CONNECTICUT

OR GTON	REHABILITATION OF WHITE ROCK ROAD BRIDGE OVER PAWCATUCK RIVER DETAILED ESTIMATE SHEET
378	D – WHITE ROCK ROAD – P.D. – 22091 – SIZE PROJECT FILE NAME NUMBER REV. OF 8



HE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON

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PAVEMENT MARKING NOTES:

- 1. FINAL PAVEMENT MARKING SHALL BE EPOXY RESIN AND SHALL MATCH EXISTING MARKINGS AT CONSTRUCTION LIMITS.

4. SIGNS SHALL BE PLACED NO CLOSER THAN 10 FEET FROM UTILITY POLES.

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON IMITED INVESTIGATIONS BY THE TOWN AND IS IN NO WAY WARRANTED TO INDICATE THE TRUE CONDITIONS

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		KEVISIONS		00,01,2021

1.5"x1.5" WOODEN POSTS FLOW

> 1. SET POSTS AND EXCAVATE A 6"x6" TRENCH. SET POSTS DOWN SLOPE. ANGLE 10° UPSLOPE FOR STABILITY AND SELF CLEANING.

FLOW

FLOW



THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE TOWN AND IS IN NO WAY WARRANTED TO INDICATE THE TRUE CONDITIONS OR ACTUAL QUANTITIES OR DISTRIBUTION OF QUANTITIES OF WORK WHICH WILL BE REQUIRED.

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WENGELL, McDONNELL & COSTELLO	152 ELM STREET
87 HOLMES ROAD NEWINGTON, CT 06111 (860) 667-9624	STONINGTON, CT 0637

OR GTON	REHABILITATION OF WHITE ROCK ROAD BRIDGE OVER PAWCATUCK RIVER SEDIMENTATION CONTROL DETAILS
378	D – WHITE ROCK ROAD – P.D. – 22091 – SHEET 5
	SIZE PROJECT FILE NAME NUMBER REV. OF 8



DATE

REVISIONS

08/01/2024

COMPONENT OR DETAIL	STRUCTURE SHEET REFERENCE			
NONE	NONE			

(860) 667-9624

30'-0" CURB TO CURB 4'-0" SHOULDER CURB 11'-0" TRAVEL LANE P OF WHITE ROCK ROAD **4" WHITE EPOXY RESIN** 3" MIN. HMA OVERLAY ON PAVEMENT MARKINGS MEMBRANE WATERPROOFING (TYP.) 4" YELLOW EPOXY RESIN (COLD LIQUID ELASTOMERIC) PAVEMENT MARKINGS 1/4" / FT <u>a | a</u> . 4. 4 4. 4. 4. 4. 4. 4. 4. 4. FLOW _____U G3 G4 3'-1" 3 SPACES @ 9'-0" = 27'-0" WELDED PLATE GIRDERS **TYPICAL BRIDGE SECTION** SCALE: 1" = 2'-0" REHABILITATION OF WHITE ROCK ROAD **PREPARED FOR** BRIDGE OVER PAWCATUCK RIVER TOWN OF STONINGTON STRUCTURE PLAN, ELEVATIONS AND SECTION 152 ELM STREET SHEET STONINGTON, CT 06378 **D** – WHITE ROCK ROAD – P.D. **_** 22091 **_**

SIZE

PROJECT

FILE NAME

NUMBER

REV.

OF

GENERAL NOTES:

SPECIFICATIONS: CONNECTICUT DEPARTMENT OF TRANSPORTATION FORM 818 (2020) SUPPLEMENTAL SPECIFICATIONS DATED JULY 2021 AND SPECIAL PROVISIONS.

DESIGN SPECIFICATIONS: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS (AASHTO EIGHTH EDITION, DATED 2017 INCLUDING INTERIM SPECIFICATIONS UP TO 2018), AS SUPPLEMENTED BY THE CONNECTICUT DEPARTMENT OF TRANSPORTATION BRIDGE DESIGN MANUAL (2003). MATERIAL STRENGTHS:

CONCRETE:

CLASS PCC 04481f'c = 4000 P.S.I.

THE CONCRETE STRENGTH, f'c, USED IN DESIGN OF THE CONCRETE COMPONENTS IS NOTED ABOVE. THE COMPRESSIVE STRENGTH OF THE CONCRETE IN THE CONSTRUCTED COMPONENTS SHALL CONFORM TO THE REQUIREMENTS OF 6.01 - CONCRETE FOR STRUCTURES, AND M.03 - PORTLAND CEMENT CONCRETE. REINFORCEMENT: ALL REINFORCEMENT SHALL BE GALVANIZED AFTER FABRICATION UNLESS NOTED OTHERWISE. ALL REINFORCEMENT SHALL CONFORM TO THE REQUIREMENTS OF ASTM A767, CLASS I, INCLUDING SUPPLEMENTAL REQUIREMENTS. THE COST OF FURNISHING AND PLACING THIS REINFORCEMENT SHALL BE INCLUDED IN THE ITEM "DEFORMED STEEL BARS - GALVANIZED." fy = 60,000 P.S.I.

FUTURE PAVING ALLOWANCE: NONE

HMA OVERLAY: THIS SHALL CONSIST OF 2" OF HMA S0.5 ON TOP OF 1" OF HMA S0.25 ON MEMBRANE WATERPROOFING (COLD LIQUID ELASTOMERIC).

DIMENSIONS: WHEN DECIMAL DIMENSIONS ARE GIVEN TO LESS THAN THREE DECIMAL PLACES, THE OMITTED DIGITS SHALL BE ASSUMED TO BE ZEROS.

EXISTING DIMENSIONS: DIMENSIONS OF THE EXISTING STRUCTURE SHOWN ON THESE PLANS ARE FOR GENERAL REFERENCE ONLY. THEY HAVE BEEN TAKEN FROM THE ORIGINAL DESIGN DRAWINGS AND ARE NOT GUARANTEED. THE CONTRACTOR SHALL TAKE ALL FIELD MEASUREMENTS NECESSARY TO ASSURE PROPER FIT OF THE FINISHED WORK AND SHALL ASSUME FULL RESPONSIBILITY FOR THEIR ACCURACY. WHEN SHOP DRAWINGS BASED ON FIELD MEASUREMENTS ARE SUBMITTED FOR REVIEW, THE FIELD MEASUREMENTS SHALL ALSO BE SUBMITTED FOR REFERENCE BY THE REVIEWER.

CONCRETE NOTES:

CONCRETE: THE FOLLOWING PAY ITEMS AND CONCRETE CLASSES ARE REQUIRED FOR CAST-IN-PLACE BRIDGE COMPONENTS:

ITEM	BRIDGE COMPONENTS	PCC CLASS
STRUCTURAL REPAIR CONCRETE	DECK SLAB	PCC04481

CONCRETE COVER: ALL REINFORCEMENT SHALL HAVE MIN. 2" COVER UNLESS DIMENSIONED OTHERWISE.

CONSTRUCTION JOINTS: CONSTRUCTION JOINTS, OTHER THAN THOSE SHOWN ON THE PLANS, WILL NOT BE PERMITTED WITHOUT PRIOR APPROVAL OF THE ENGINEER.



THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE TOWN AND IS IN NO WAY WARRANTED TO INDICATE THE TRUE CONDITIONS

		REVISIONS	DATE	08/01/2024
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	CONSULTING ENGINEERS	TOWN OF STONING
	WENGELL, McDONNELL & COSTELLO	152 ELM STREET
	87 HOLMES ROAD NEWINGTON, CT 06111 (860) 667-9624	STONINGTON, CT 063
	96	



1. THE EXACT LOCATION AND EXTENT OF ALL DETERIORATED DECK AREAS TO BE REPAIRED WILL BE DETERMINED BY THE ENGINEER. AFTER REMOVAL OF THE EXISTING OVERLAY, THE ENGINEER SHALL CHAIN DRAG AND/OR HAMMER TAP THE CONCRETE SLAB TO DELINEATE THE DETERIORATED AREAS. THE DETERIORATED AREAS SHALL BE REPAIRED BY THE CONTRACTOR UTILIZING THE "PARTIAL DEPTH PATCH" DETAIL OR "FULL DEPTH PATCH FOR REPAIR TO THE SLAB AS DIRECTED BY THE ENGINEER.

2. CONCRETE USED FOR FULL DEPTH PATCH SHALL CONFORM TO (STRUCTURAL REPAIR CONCRETE, PCC04481). CONCRETE USED FOR PARTIAL DEPTH PATCH SHALL CONFORM TO

3. THE COST OF REMOVAL OF THE DETERIORATED CONCRETE, INCLUDING THE 1/2 IN. SAW CUT, AND THE FURNISHING AND PLACING THE PATCHING MATERIAL OR CONCRETE SHALL BE PAID FOR UNDER THE ITEM "SURFACE REPAIR CONCRETE" OR "STRUCTURAL

4. WHERE EXISTING REINFORCING STEEL IS NOT SOUND, REPAIRS SHALL BE MADE AS SHOWN ON THIS SHEET AND/OR AS DIRECTED BY THE ENGINEER.

5. THE REINFORCEMENT USED FOR REPAIRS SHALL BE GALVANIZED AND CONFORM TO

6. THE COST OF FURNISHING AND PLACING THE REINFORCEMENT SHALL BE PAID FOR UNDER THE ITEM "DEFORMED STEEL BARS - GALVANIZED".

7. IN PLACES ON THE DECK SLAB WHERE FULL DEPTH PATCH ISN'T NECESSARY, PARTIAL DEPTH PATCH MAY BE USED. THESE LOCATIONS MUST BE APPROVED BY THE ENGINEER.

DR TON	REHABILITATION OF WHITE ROCK ROAD BRIDGE OVER PAWCATUCK RIVER MISCELLANEOUS DETAILS	ION OF WHITE ROCK ROAD VER PAWCATUCK RIVER ELLANEOUS DETAILS				
78	D – WHITE ROCK ROAD – P.D. – 22091 – SHEET 8					
	SIZE PROJECT FILE NAME NUMBER REV. OF 8					





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99

* Anticipated: 12" Water Main (Capped for future use) 8" Water Main

-

SCALE: 1/4" = 1'-0"

TYPICAL BRIDGE SECTION - WEST ABUTMENT TO PIER NO. 1

1 •...

TYPICAL BRIDGE SECTION - PIER NO. 1 TO PIER NO. 2

SCALE: 1/4" = 1-0"

•

		04182		
	REVISIONS	RHODE ISLAND		
	NO DATE BY	DEPARTMENT OF TRANSPORTATION DIVISION OF PUBLIC WORKS		
		WHITE ROCK BRIDGE No. 65 WESTERLY, RI STONINGTON, CT		
Parsons DeLeuw, Inc. ENGINEERS AND PLANNERS		TYPICAL BRIDGE SECTIONS		



DELINEATORS DE-1, DE-2, DE-3

REV. DATE

REVISION DESCRIPTION

Plotted Date: 8/10/2018





CONNECTION CONNECTION	SUBMITTED BY:	NAME/DATE/TIME:	
STATE OF CONNECTICUT	Marle Mabuli APPROVED BY:	Mark F. Makuch, P.E. 2018.08.17 09:06:06-04'00' NAME/DATE/TIME:	CTDOT STANDARD SHEET
DEPARIMENT OF TRANSPORTATION	WER	Mark F. Carlino, P.E.	OFFICE OF ENGINEEPING
ilename: TR_1208_01_1_2018.dgn Model: TR-1208_01		2010.00.21 07.40.00-04 00	CITICE OF ENGINEERING

A/2 A/2

RETROREFLECTIVE STRIPS

OVER 48" LONG:

MIN

RETROREFLECTIVE STRIP DETAIL

RETROREFLECTIVE STRIPS WHICH ARE 48 IN LONG OR LESS SHALL BE ATTACHED USING 2 BOLTS AND RETROREFLECTIVE STRIPS OVER 48 IN LONG SHALL BE ATTACHED USING 3 BOLTS AS SHOWN ON

AND SIGN MOUNTING DETAILS" FOR MOUNTING DETAILS.

"DO NOT ENTER" SIGNS SHALL BE RED.

REFER TO STANDARD SHEET No. TR-1208_02 "METAL SIGN POSTS

RETROREFLECTIVE STRIP COLOR SHALL MATCH THE BACKGROUND COLOR OF THE SIGN, EXCEPT THAT THE COLOR OF THE STRIP FOR "YIELD" AND

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FOR SIDE MOUNTED SIGNS ON STRUCTURAL STEEL BREAKAWAY SIGN SUPPORTS

RETROREFLECTIVE STRIPS

48" LONG OR LESS:

< >

MIN

THE DETAILS ABOVE.

NOTES:

SIGN ORIENTATION DETAILS



ON A HORIZONTAL CURVE SECTION, POSITION THE SIGN SO THE VERTICAL AXIS IS PLUMB AND THE HORIZONTAL AXIS IS AT AN ANGLE OF 90° WITH A STRAIGHT LINE BETWEEN THE SIGN AND THE POINT AT WHICH THE SIGN SHALL BE READ.



ON A TANGENT SECTION, POSITION THE SIGN SO THE VERTICAL AXIS IS PLUMB AND THE HORIZONTAL AXIS IS AT AN ANGLE OF 90° WITH THE TRAFFIC LANE WHICH THE SIGN SERVES. SIGNS LOCATED 30 FT OR MORE FROM THE EDGE OF THE ROAD

SHALL BE TURNED APPROXIMATELY 3° TOWARD THE ROAD.

FOR MAXIMUM EFFECTIVENESS, POSITION SIDE MOUNTED SIGNS ON STRUCTURAL STEEL BREAKAWAY SIGN SUPPORTS AS FOLLOWS:

DIM."A" MIN SIGN HEIGHT	DIM."B" MIN LATERAL OFFSET (1)	DIM."C" MIN PLAQUE HEIGHT	ASSEMBLY LOCATION
7' ②	6' 12' ③	5'	SIGNS ON FREEWAYS AND EXPRESSWAYS EXCEPT CHEVRON ALIGNMENT SIGNS, ONE-DIRECTION LARGE ARROW SIGNS, DO NOT ENTER SIGNS, AND WRONG WAY SIGNS
5'	2'	4'	 SIGNS IN RURAL AREAS DO NOT ENTER AND WRONG WAY SIGNS ALONG EXIT RAMPS DO NOT ENTER AND WRONG WAY SIGNS ON LIMITED ACCESS HIGHWAYS
5'	2'	N/A	 CHEVRON ALIGNMENT SIGNS LOCATED ON FREEWAYS, EXPRESSWAYS, RAMPS, AND IN RURAL AREAS ONE-DIRECTION LARGE ARROW SIGNS LOCATED ON FREEWAYS, EXPRESSWAYS, RAMPS, AND IN RURAL AREAS
4'	6' 12' (3)	N/A	INCIDENT MANAGEMENT SIGNS AND MILE POST MARKER ASSEMBLIES LOCATED ON FREEWAYS AND EXPRESSWAYS
4'	2'	4'	CENTRAL ISLANDS OF ROUNDABOUTS
7'	2' (4)	6'	BUSINESS & RESIDENTIAL AREAS WHERE PARKING OR OTHER OBSTRUCTIONS LIMIT VISIBILITY
7'	2' (4)	7'	SIDEWALKS 5

IF A RETFOREFLECTIVE STRIP IS USED ON SIGN SUPPORT, IT SHALL BE PLACED FOR THE FULL LENGTH OF THE SUPPORT FROM THE BOTTOM OF THE SIGN TO WITHIN 2 FT ABOVE THE EDGE OF THE ROADWAY. PARKING SIGNS TYPICALLY USE 45° MOUNTING BRACKET.

ALL SIGNS AND SHIELDS ON DIRECTIONAL ASSEMBLIES SHALL ABUT VERTICALLY. REFER TO STANDARD SHEET No. TR-1208_02 "METAL SIGN POSTS AND SIGN MOUNTING DETAILS" FOR SIGN POSTS AND SIGN MOUNTING.

TYPICAL SIGN PLACEMENT DETAIL

NOTES:

 $\langle 3 \rangle$

 $\langle 4 \rangle$



SIGN PLACEMENT AND **RETROREFLECTIVE STRIP DETAILS**

ANDARD SHEET TITLE

(5) A CLEAR PATH OF NOT LESS THAN 4 FT SHALL BE PROVIDED IN SIDEWALK AREAS.

12 FT FROM EDGE OF TRAVELWAY, WHEN SHOULDER IS LESS THAN 6 FT WIDE. A LATERAL OFFSET OF AT LEAST 1 FT FROM THE FACE OF THE CURB MAY BE USED WHERE SIDEWALK WIDTH IS LIMITED OR WHERE EXISTING UTILITY POLES ARE CLOSE TO THE CURB.

6 FT FROM EDGE OF SHOULDER, WHEN SHOULDER IS OVER 6 FT WIDE

 $\langle 2 \rangle$ 8 FT MINIMUM HEIGHT REQUIRED IF A SUPPLEMENTAL PLAQUE IS SUBMOUNTED BELOW THE MAJOR SIGN.

(1) OR AS DIRECTED BY THE ENGINEER



RETROREFLECTIVE STRIP

(OPTIONAL)



TR-1208_01

TANDARD SHEET NO.:







	1 1	
Mark Mabul	Mark F. Makuch, P.E. 2018.08.17 09:07:44-04'00'	CTDOT STANDARD SHEET
PPROVED BY: NAME/DATE/TIME:		STANDARD SHEET
WERE	Mark F. Carlino, P.E. 2018.08.21 07:48:45-04'00'	OFFICE OF ENGINEERING



STATE OF CONNECTICUT	Mark Mabuli	Mark F. Makuch, P.E. 2018.08.17 09:10:18-04'00'	CTDOT STANDARD SHEET	
DEPARTMENT OF TRANSPORTATION	APPROVED BY:	NAME/DATE/TIME:	STANDARD SILLI	
	UFTR	Mark F. Carlino, P.E. 2018.08.21 07:49:18-04'00'	OFFICE OF ENGINEERING	
-ilename: TR-1210_08.DGN Model: TR-1210_05				



	AHEAD (L)	AHEAD (R)			(R) OCTAGON - R ARROW & BO BACKGROUND	ED W/ WHITE BORDER DRDER - BLACK - FLUORESCENT ORANGE
POSTS 1 1 2	AREA (SQ. FT) SIZE (INCHES) 16.0 48 16.0 48	CONN. POSTS D.O.T. # 80-9433L 2 80-9435R 2	AREA (SQ. FT) (1 25.0 25.0 W1-4c	SIZE CONN. INCHES) D.O.T. # 60 80-9483L 60 80-9485R	POSTS AREA (SQ. FT) 2 9.0 2 16.0 W3-2 W3-2	SIZE (INCHES) CONN. D.O.T. POSTS 36 80-9050 1 48 80-9051 2
2	BOTH LANES SHIFT LEFT	BOTH LANES SHIFT RIGHT			(R) TRIANGLE - R ARROW & BO	ED W/ WHITE BORDER DRDER - BLACK
	AREA SIZE (SQ. FT) (INCHES 16.0 48	CONN. POSTS D.O.T. # 80-9434L 2 80.0436B 2	AREA (SQ. FT) (1 25.0	SIZE CONN. NCHES) D.O.T. # 60 80-9484L	BACKGROUND POSTS AREA (SQ. FT 2 9.0	- FLUORESCENT ORANGE SIZE CONN. (INCHES) D.O.T. # POSTS 36 80-9054 1
2			23.0	<u>00</u> 00-9480K	W3-3	
20STS	AREA SIZE (SQ. FT) (INCHES 25.0 60 25.0 60 W1-4b	(R) CONN. POSTS D.O.T. # POSTS 80-9443L 2 80-9445R 2			BOTTOM CIRC COPY & BORE BACKGROUND AREA (SQ. FT 9.0 16.0	CLE - GREEN DER - BLACK - FLUORESCENT ORANGE SIZE CONN. POSTS (INCHES) D.O.T. # POSTS 36 80-9052 1 48 80-9053 2
1	(L)	(R) (R) (R)				
	25.0 60 25.0 60	80-9444L 2 80-9446R 2			STOP-9	SLOW PADDLE
				RIABLE)	SIDE SIDE A BACKGROUNI COPY & BOR SIDE B	A SIDE B SLOW
POSTS 2	BLANK OR VARIABLE LEGEND AREA SIZE (SQ. FT) (INCHES) D.O.T. # POSTS	AREA (SQ. FT) (1	SIZE CONN. NCHES) D.O.T. #	BACKGROUND COPY & BOR POSTS AREA (SQ. FT	D - ORANGE DER - BLACK PLAIN SIZE CONN. POSTS (INCHES) D.O.T. # POSTS
2 2	9.0 36 16.0 48	80-9933 1 80-9934 2	12.5 24.0	60X30 80-9928 72X48 80-9929	2 2.25 2	18 80-9950 PADDLE
	USE	DER	SHOULDER CLOSED AHEAD		DER ED	
	AREA SIZE (SQ. FT) (INCHES 16.0 48	CONN. POSTS D.O.T. # POSTS 80-9956 2	(1) (1) (2) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1	SIZE CONN. NCHES) D.O.T. # 48 80-9957 36 80-9958	POSTS	
LEGEN D SHI S./FT. E FOR ORTS ES".	ID "O.S.T.A." SHALI EET TR-1208_02 - LONG TERM INST SEE STANDARD SH	_ APPEAR. "METAL SIGN PC TALLATION. SEE S HEET TR-1220_02	(2) 16.0 OSTS AND SIC STANDARD SH 2 - "CONSTRUC	48 80-9959 GN MOUNTING EET TR-1208_C CTION SIGN SI	2 DETAILS". D2. UPPORTS AND	
ESIGN HWA F SAME IGNS SHAL	I, CONTACT CONN. PUBLICATION "STAI POSTS, OR SPAN/I TO BE PAID FOR I L CONFORM TO S	D.O.T., DIVISION NDARD HIGHWAY MAST ARM MOUN UNDER THE CON TATE SPECIFICAT	I OF TRAFFIC SIGNS". SIG NTED, MAY RE STRUCTION S IONS.	ENGINEERING. INS OF DIFFER QUIRE SPECIAL IGNS ITEM IN	FOR BOLT HOLE ENT DIMENSIONS BOLT HOLE PATT THE CONTRACT.	TO ERNS.
M TO ST MC 3E .12 NE CO	THE REQUIREMEN DUNTED SIGNS SHA 5", PLYWOOD THIC AT OF PRIMER PAI	TS OF NCHRP RE ALL BE .100" EXC KNESS FOR POS NT PRIOR TO AF	PORT 350 (TI CEPT SIGN #s T MOUNTED S PPLICATION O	3) OR THE A/ 3. 80-1605, 80-9 5IGNS SHALL B F RETROREFLEC	ASHTO MASH FOR 9914, 80-9815, 3E 1/2" EXTERIOR CTIVE SHEETING 8	& COPY.
DTED. TO U SHEET	SE TYPE VIII RETR ING.	OREFLECTIVE SH	EETING.			
STAN	DARD SHEET TITLE:					STANDARD SHEET NO.:
	SIGI AN	NS FOR D PERM	CONS 1IT OP	TRUCT	ION DNS	TR-1220_01

W3 - SERIES

W1 - SERIES

BOTH LANES

SHIFT RIGHT

BOTH LANES

SHIFT LEFT



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FANDARD SHEET NO.:

TR-1220_02