

**TOWN OF WATERTOWN
WATERTOWN, CONNECTICUT**

NOTICE OF BID

**Middlebury Road Drainage Bid
Watertown Public Works Department**

Sealed bids are invited and will be received by the Purchasing Agent of the Town of Watertown at the office of the Purchasing Agent, Town Hall, 61 Echo lake Road, Watertown, Connecticut, until **11:00 a.m., Tuesday, March 16, 2021**, at which time and place they will be publicly opened and read aloud for furnishing centerline striping and related traffic control pavement markings to the Town of Watertown.

The Information for Bidders, Form of Bid, Specifications and other contract documents may be obtained or examined at the office of the Purchasing Agent, Watertown Town Hall, 61 Echo Lake Road, Watertown, Connecticut 06795 or by accessing the Town of Watertown's website at <http://www.watertownct.org>. Proposals must be submitted on the forms provided and in a sealed envelope plainly marked **"Bid – Middlebury Road Drainage Bid"**.

To receive consideration bids must be in the hands of the Purchasing Agent or his authorized representative no later than the day and hour mentioned above.

The Purchasing Agent reserves the right to accept or reject any or all bids; to waive any informality; or to accept any bid deemed in the best interests of the Town of Watertown.

The Town of Watertown reserves the right to take into account the residency of bidders within the Town of Watertown and/or the location of the bidder's business within the Town of Watertown in awarding this bid.

All bids will be considered valid for a period of sixty (60) days.

Donna Ford
Purchasing Agent
Town of Watertown

INFORMATION FOR BIDDERS
TOWN OF WATERTOWN
WATERTOWN, CONNECTICUT 06795

Middlebury Road Drainage Bid
Watertown Public Works Department

BID OPENING:

PROPOSALS RECEIVED

All bids must be in a sealed envelope and received prior to **11:00 a.m., Tuesday, March 16, 2021**, at the office of the Purchasing Agent, 61 Echo Lake Road, Watertown, Connecticut 06795.

PREPARATION OF PROPOSALS

Proposals must be made upon forms contained herein. The blank spaces in the Proposal must be filled in correctly where indicated. The Bidder must state the prices for which he proposes to do each item of the work contemplated. In case of discrepancy where both words and the numerals are requested, the words shall govern. Ditto marks are not considered writing or printing and shall not be used. The Bidder shall sign his Proposal correctly. If the Proposal is made by an individual, his name, post office address and telephone number must be shown. If made by a firm, partnership, or corporation, the Proposal must be signed by an official of the firm, partnership, or corporation authorized to sign contracts, and must show the post office address and telephone number of the firm, partnership, or corporation. Failure to do so may disqualify the bid.

Each bid must be submitted in a sealed envelope bearing on the outside the name of the Bidder, post office address, and name of the project for which the bid is submitted. If forwarded by mail, the sealed envelope containing the bid must be enclosed in another envelope addressed to: The Purchasing Agent, Watertown Town Hall, 61 Echo Lake Road, Watertown, CT 06795.

All information shall be entered in ink or by typewriter. Mistakes may be crossed out and corrections inserted before submission of your bid. The person signing the bid shall initial corrections in ink.

Corrections and/or modifications received after the closing time specified will not be accepted.

SUBMISSION OF PROPOSALS

All proposals and literature shall be submitted **IN DUPLICATE** on the proposal form, which is a part of these specifications.

Descriptive literature containing complete specifications must accompany each bid. If a bidder wishes to furnish additional information, more sheets may be added.

Adobe Acrobat® Reader is required to view electronic documents on-line. If you do not have Adobe Acrobat® Reader, you may download it for free from Adobe at <http://www.adobe.com/products/acrobat/readstep.html>.

Response summaries will be available online at <http://www.watertownct.org> on the day of the bid opening.

Responses delivered via fax are received subject to the following qualifications and limitations:

- The Town is not responsible for the confidentiality of the information transmitted.
- The Town cannot guarantee that its fax equipment will be operational and able to receive transmittals by a particular time and date. It is the Bidder's responsibility to ensure that quotations are received in their entirety and on time at the required location. It is recommended that vendors be advised to call immediately after transmitting a document electronically to confirm complete and accurate receipt by the Town. The Town assumes no liability in the event that a bidder's electronic transmission is not received by the Town in a timely fashion, or is not received either in its entirety or error-free.
- Bids transmitted electronically which have a bond requirement are subject to the same submittal requirements as those responses delivered via traditional means, such as mail or hand delivery, or as otherwise stipulated by appropriate authority.

INCURRING COSTS

The Town of Watertown is not liable for any cost incurred for the preparation of proposals or submission of samples by the firms submitting proposals for the work requested in this bid document or request for proposals.

FAMILIARITY WITH THE WORK

Each bidder is considered to have examined the work to fully acquaint himself with the exact existing conditions relating to the work and has fully informed himself as to the work involved and the difficulties and restrictions attending the performance of this bid. Failure to do so will not relieve a bidder of his obligation to furnish all centerline striping and related pavement markings as specified for the consideration set forth in this bid. The submission of a bid will be considered as conclusive evidence that the bidder has made such examination.

CONSIDERATION OF PRIOR SERVICE

Previous performance, quality of service and merchandise will be considered.

ADDENDA AND INTERPRETATIONS & ALTERNATE PROPOSALS

Addenda information will be available online at <http://www.watertownct.org>. Adobe Acrobat® Reader may be required to view this document. It is strongly suggested that Bidders check for any addenda a minimum of forty-eight hours in advance of the bid deadline.

At the time of the opening of bids each Bidder will be presumed to have inspected the work and to have read and to be thoroughly familiar with all of the Contract Documents (including all addenda). The failure or omission of any Bidder to receive or examine any form, instruction or document shall in no way relieve any bidder from any obligation in respect to his bid.

If any person contemplating submitting a proposal is in doubt as to the true meaning of any part of these specifications, he may submit a written request for an interpretation to the Purchasing Agent. No interpretations as to the meaning of the plans, specifications or other Contract Documents will be made to any Bidder orally.

Every request for such interpretation should be in writing addressed (duplicate copy) to the Town of Watertown, Purchasing Agent, 61 Echo Lake Road, Watertown, Connecticut 06795, and to be given consideration, must be received at least five (5) days prior to the date fixed for the opening of Bids. Any and all such interpretations and any supplementary instructions will be in the form of written Addenda to the Specifications which, if issued, will be mailed by Registered Mail with Return Receipt Requested to all prospective Bidders at the respective addresses furnished for such purposes, not later than three (3) days prior to the date fixed for the opening of bids. Failure of any Bidder to receive any such Addendum or interpretations shall not relieve any Bidder from any obligations under his bid as submitted. All Addenda so issued shall become part of the Contract Documents. Oral explanations will not be binding on the Town.

The specifications listed are to be interpreted as meaning the minimum acceptable by the Town of Watertown. Bidders are requested to submit quotations on the basis of these specifications. Alternative bids providing a broader scope and/or services than requested in these specifications may receive consideration providing such equipment and/or service is clearly explained. Any exceptions to the specifications requested herein must be clearly noted in writing and are to be included as a part of the bid proposal. If none are included it will be assumed that there are none.

Definition of the word "complete" means that each unit of the equipment proposed shall include all appurtenances, fasteners, parts, accessories, and services ordinarily catalogued.

An item equal to that named or described in the specifications may be furnished by the Bidder, except where expressly noted as "no substitutions." The naming of any commercial name, trademark, or other identification shall not be construed to exclude any item of any manufacturer not mentioned by name, nor limit competition, but shall establish a standard of equality only. An item shall be considered equal to the item so named or described if:

- It is at least equal in quality, durability, appearance, strength and design.
- It will perform at least equally the function imposed by the design for the work being contracted for or the material being purchased.
- It conforms substantially, even with deviations, to the detailed requirements for the item in the specifications.

The Bidder shall hold the Town of Watertown, its officers, agents, servants, and employees, harmless from liability of any nature or kind because of use of any copyrighted or uncopyrighted compositions, secret process, patented or unpatented inventions, articles or appliances furnished or used under this bid, and agrees to defend, at his own expense, any and all actions brought against the Town of Watertown or himself because of the unauthorized use of such articles.

QUOTATION LIMITATION

Bidders shall offer only **ONE ITEM AND PRICE** for each line item bid. If an or equal item is to

be bid, the bidder is to select the brand and model that meets or exceeds the specified item, and submit his bid for that item.

ESTIMATE OF WORK

For bidding purposes, the work has been subdivided into unit price items. The quantities shown are to be considered as approximate only. The Purchasing Agent does not expressly or by implication agree that the actual quantity will correspond therewith, but reserves the right to increase or decrease the amount of any item or portion of the work as deemed necessary.

SAMPLES

Samples of articles, when required shall be furnished free of cost of any sort to the Town of Watertown. Samples received may be retained by the Town for future comparison. Samples which are not destroyed by testing, or which are not retained for future comparison will be returned upon request at the bidder's expense.

WITHDRAWAL OF BID

Bidders may withdraw their proposals at any time prior to the bid date. No agent/broker shall withdraw or cancel their proposal for a period of sixty (60) days after the bid closing date of **11:00 a.m., March 16, 2021**. The successful agent/broker shall not withdraw, cancel or modify their proposal.

POWER OF ATTORNEY

Attorneys-in-fact who sign contract bonds must file, with each bond, a certified and effectively dated copy of their power of attorney.

SUBCONTRACTORS

- Each bidder contemplating the use of any subcontractor shall submit a list of subcontractors as listed on the Bid Form.
- The apparent low bidder shall file with the Town of Watertown, within five (5) days after the date of bid opening, a complete list of the names and addresses of competent, responsible and qualified subcontractors who are actually to perform major portions of the work. This in no way restricts or limits the requirement that all subcontractors must be approved by the Town.
- Subcontractors listed on the Bid Form or those previously approved may not be changed without the approval of the Town of Watertown.

Local subcontractors, material suppliers, and labor in the Town of Watertown should be considered and sought insofar, as is practical in the performance of this project.

QUALIFICATION OF BIDDER

In determining the qualifications of a bidder, the Town may consider his record in the performance of any contracts for similar work into which he may have previously entered; and the Town expressly reserves the right to reject the bid of such bidder if such record discloses that such bidder, in the opinion of the Town, has not properly performed such contracts or has habitually, and without just cause, neglected the payment of bills or has otherwise disregarded his obligations to subcontractors, suppliers, state or local codes, men or employees of subcontractors.

The Town may make such investigation as he 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 bid if the evidence submitted by or the investigation of such bidder fails to satisfy the Town that such bidder is properly qualified, or that such bidder misrepresented material facts in the bid documents.

DISQUALIFICATION OF BIDDERS

More than one proposal from an individual, firm, partnership, corporation, or an association under the same or different names will not be considered. Reasonable grounds for believing that any Bidder is interested in more than one proposal for the work contemplated will cause the rejection of all proposals in which such Bidder is interested. Any or all proposals in which such Bidder is interested will be rejected if there is reason for believing that collusion exists among the Bidders and all participants in such collusion will not be considered in future proposals for the same work. Proposals in which the prices are obviously unbalanced may be rejected. No Contract will be awarded except to competent Bidders capable of performing the class of work contemplated.

DELIVERY

Inasmuch as this work concerns a needed public improvement, the provisions of this bid relating to the time of delivery, performance and completion of the work are of the essence of this bid. Accordingly, the successful bidder shall commence work **upon receipt of the signed Purchase Order** unless the Town shall authorize or direct a further delay.

Time of delivery shall be stated as the number of calendar days following receipt of the Purchase Order by the Bidder to receipt of the goods or services by the Town of Watertown.

Prices quoted must include delivery to the Town of Watertown as specified on the Purchase Order. No charges will be allowed for parking, crating, freight, express or cartage unless specifically stated and included in this bid.

Time of delivery may be considered in the award.

PAYMENT

The Town, after inspection and acceptance of workmanship, and in consideration of the faithful performance by the Bidder of all and singular his covenants, promises, and agreements contained herein, agrees to pay the Bidder for the full completion by him of the work embraced in this Contract, within (30) Thirty Days of the receipt of the final invoice. When subcontractors or suppliers are utilized, the successful Bidder for this project shall be required to submit a Mechanics Lien Waiver, acceptable to the Town, with each progress payment and/or at time of final payment prior to any payment being made.

Time, in connection with any discount offered, will be computed from the date of delivery to the Town or from the date a correct invoice is received by the Town's Finance Department, if the latter date is later than the date of delivery.

Prices will be considered as **NET**, if no cash or payment discount is shown.

The successful bidder shall submit invoices to the following address:

Town of Watertown
Watertown Public Works Department
61 Echo Lake Road
Watertown, CT 06795

IT IS UNDERSTOOD AND AGREED THAT SHOULD A BID BE ACCEPTED, IT WILL AUTOMATICALLY BECOME THE CONTRACT OR AN ADDENDUM TO ANY CONTRACT AGREED UPON.

Notification of the bid award will be made by issuance of a purchase order. Bidders are to list their bids on the appropriate attached sheets. Bidders may attach a letter of explanation. A clear notification should be made on the standard bid sheets at the appropriate point of explanation that there is a letter of explanation attached. All bids must be NET prices.

The successful bidder shall submit an itemized invoice to the Town of Watertown for the work as described herein.

The bidder shall be required to submit a Mechanics Lien Waiver, acceptable to the Town of Watertown, with each progress payment and at time of final payment prior to any payment being made.

At the time of award, the successful bidder shall be required to supply the Town of Watertown a Certificate of Good Standing, certifying that the corporation is in fact a valid corporation and presently licensed to conduct business in the State of Connecticut.

SALES TAX

Certain materials and supplies incorporated in the work of this project are exempt from Connecticut Sales Tax. The Bidder shall familiarize himself with current regulations of the State Tax Department. The tax on materials or supplies exempted by such regulations shall not be included as part of the bid. The Town will furnish the successful Bidder sales tax exemption authorization.

CARE AND PROTECTION OF PROPERTY

The Bidder shall take particular care to avoid damages to all private and public property and to private or public improvements within the Town's right of way. He shall make good any damages to the satisfaction of the Town. There shall be no additional compensation for the repair or restoration of private or public property improvements.

COMPLIANCE WITH FEDERAL, STATE AND LOCAL CODES

The Bidder shall be responsible for full compliance with any Federal, State and/or Local codes, laws, regulations and standards, as applicable-

AWARD

The Town of Watertown reserves the right to accept or reject any bid to best serve its interests, or to hold the bids for sixty (60) days before decision.

The Town reserves the right to reject any and all bids (or any part thereof), to waive defects in proposals, or to accept any proposal deemed to be in its best interest.

Exceptions will be considered to the specification provided, providing they are listed and fully explained on a separate page entitled "EXCEPTIONS TO SPECIFICATIONS"

Each exception will be considered as to its degree of impact and total effect on the bid. The purchaser shall determine which (if any taken) exceptions are acceptable, and this determination shall be final.

The Town of Watertown reserves the right:

- To award bids received on the basis of individual items, or groups of items, or on the entire list of items.
- To reject any or all bids, or any part thereof.
- To waive any informality in the bids.
- The Town of Watertown reserves the right to take into account the residency of bidders within the Town of Watertown and/or the location of the bidder's business within the Town of Watertown in awarding this bid.
- To accept the bid that is in the best interest of the Town of Watertown. The Purchasing Agent's decision shall be final.

INSURANCE

A. General:

The Bidder shall be responsible for maintaining insurance coverage in force for the life of the contract of the kinds and adequate amounts to secure all of the Bidder's obligations under the contract with an insurance company with an AM Best Rating of A - VII or better licensed to write such insurance in Connecticut and acceptable to the Town of Watertown.

The insurer shall provide the Town of Watertown with Certificates of Insurance signed by an authorized representative of the insurance company(ies) prior to the performance of this contract describing the coverage and providing that the insurer shall give the Town of Watertown written

notice at least thirty (30) days in advance of any termination, expiration, or any and all change in coverage.

Such insurance or renewals or replacements thereof shall remain in force during the Bidder's responsibility under this agreement.

The Bidder at his own cost and expense shall procure and maintain all insurance required and shall name the Town of Watertown, its employees, departments, boards, committees and commissions, as an additional insured on all contracts except Worker's Compensation and Professional Errors & Omissions coverage.

In order to facilitate this requirement for insurance, it is recommended that the bidder forward a copy of this exhibit to the bidder's insurance representative(s).

B. Specific Requirements:

(1) Workers' Compensation Insurance

The Bidder shall provide Workers' Compensation Insurance required by law and the Employer's Liability Insurance for at least the amounts of liability for Bodily Injury by accident of \$100,000 each accident; Bodily Injury by Disease each employee of \$100,000; Bodily Injury by Disease, policy limit of \$500,000.

(2) Commercial General Liability Insurance

The Bidder shall carry Commercial General Liability policy (Insurance Services Office Incorporated Form CG-0001 or equivalent). A per occurrence limit of \$1,000,000 is required. The Aggregate Limit will be not less than \$1,000,000.

(3) Business Automobile Liability Insurance

The Bidder shall carry Business Automobile Liability Insurance. (Insurance Services Office Incorporated Form CA-00001 or equivalent). A per occurrence limit of \$1,000,000 is required. "Any Auto" (symbol 1 or equivalent) is required.

C. Hold Harmless & Subcontractor's Requirements:

The Bidder shall require the same insurance that it is required to carry by the Town of Watertown to be carried by any subcontractors and independent contractors hired by the Bidder and to obtain Certificates of Insurance before subcontractors and independent contractors are permitted to begin work.

The Bidder shall require that the Town of Watertown, its employees, departments, boards, committees and commissions, be named as Additional Insured on all subcontractor's and independent contractor's policies before they are permitted to begin work.

The Bidder and all subcontractors and independent contractors and their insurers shall waive all rights of subrogation against the Town of Watertown, and its officers, agents, servants and employees for losses arising from the work performed by each on this contract.

The Bidder assumes and agrees to hold harmless, indemnify, protect and defend the Town of

Watertown against any and all liability for injuries and damages to Bidder and to Bidder's employees, agents, subcontractors and guests, third parties or otherwise incident to or resulting from any and all operations performed by a contractor under any terms of this contract.

D. Other Data:

NOTE 1: If Bidder is only a vender shipping goods via Common Carrier only, General Liability is required.

NOTE 2: If Bidder is a Professional, Errors & Omission coverage will be required.

NOTE 3: The Town reserves the right to amend amounts of coverage required and the types of coverage provided based on work or service to be performed.

GUARANTEE

The bidder shall unconditionally guarantee for a period of one (1) year from the date of acceptance, all materials, supplies, equipment, and services; including but not limited to its workmanship, delivery and installation. If within the guarantee period there are any defects or signs of deterioration the bidder shall repair, adjust or replace the item(s) to the complete satisfaction of the Town. These repairs, adjustments, or replacements are at the sole expense of the bidder and shall be made at such times that are agreeable to the Purchasing Agent so that it is least detrimental to instructional programs.

PERMITS

When required all licenses and permits for complying with any applicable Federal, State, and Municipal laws, codes, regulations in connection with the prosecution of the work shall be obtained by the Bidder, at no additional cost to the Town.

NONDISCRIMINATION IN EMPLOYMENT

The successful bidder shall agree and warrant that, in the performance of this contract, he will not discriminate or permit discrimination against any person or group of persons on the grounds of race, color, sex, religion, or national origin in any manner prohibited by State, Federal, County, or Municipal law. A certification of Nonsegregated Facilities and a Certification Regarding Equal Employment Opportunity shall be considered a part of this contract.

MECHANICS LIEN WAIVERS

The successful Bidder shall be required to submit a Mechanics Lien Waiver, acceptable to the Town of Watertown, with each progress payment, and/or at time of final payment, prior to any payment made.

For further technical or administrative information contact Donna Ford, Purchasing Agent at (860) 945-5260 or via email at ford@watertownct.org.

**TOWN OF WATERTOWN
WATERTOWN, CONNECTICUT**

TECHNICAL SPECIFICATIONS

**Middlebury Road Area Drainage Improvements
Watertown Public Works Department**

Bidders shall:

- provide a list of equipment available for the project
- provide a list of references for work performed over the last five years in the State of Connecticut
- OSHA 10 Certificates for all contractor employees working on-site

Project Description

This project consists of the provision of approximately 7 catch basins, 367 linear feet (LF) of 24" ADS Piping (ADS), 523 linear feet (LF) of 18" ADS, 44 linear feet (LF) of 15" ADS, 126 tons of bituminous concrete, 200 linear feet of bituminous concrete lip curb (BCLC) and incidental related work on Middlebury Road and Vaill Road in Watertown, Connecticut.

TECHNICAL SPECIFICATIONS

This project consists of provision or extension of the storm water drainage system on Middlebury and Vaill Roads in Watertown, Connecticut in accordance with the project plans and specifications. All work is to be performed in accordance with the State of Connecticut Department of Transportation "Standard Specifications for Roads, Bridges and Incidental Construction, Form 817", as supplemented and as amended below. However, it should be noted that reference to the Form of 817 is for convenience only and is not meant to imply or to infer that this project is an 817 project or that all of the terms and conditions of the Form 817 apply. Mobilization, demobilization, handling water, dust control, dewatering, saw cutting, tack coating, utility protection and construction staking will not be bid separately, but the price of such work as may be required shall be included in the unit price bid for the work. It is the sole responsibility of the contractor to provide, arrange for and coordinate any utility support, protection or relocations required for this project.

Traffic men:

Uniformed Police Officers will be required for all work performed in the roadway and shall be provided in accordance with the State of Connecticut Department of Transportation "Standard Specifications for Roads, Bridges and Incidental Construction", Form 817, as amended. Upon approval by the Engineer, the contractor is to arrange for the Police Officers. The Town will be responsible for payment of the Officers directly. Contractor shall be responsible for paying for any Uniformed Police officers that were scheduled but were not cancelled in accordance with Police Department Policy. Uniformed Police Officers may be scheduled by calling the Special

Duty Officer at (860) 945-5200. Uniformed Police Officers are not required when the roadway is closed to through traffic or when an approved traffic detour is provided.

TECHNICAL SPECIFICATIONS CURBING

Description:

Bituminous Concrete Lip Curb:

The item for “Bituminous Concrete Lip Curb (BCLC)” shall include all labor, equipment and materials required to provide the bituminous concrete lip curb, including tack coat in accordance with Form 817 and as shown on the plans. All BCLC shall be backed to the top of the curb up by compacted topsoil, which shall be seeded and mulched in accordance with the appropriate line item.

Materials

Bituminous Concrete Lip Curb:

Materials, including tack coat, shall conform to the requirements of Article 8.15 of the Form 817.

Construction Methods

Bituminous concrete lip curb – in accordance with Article 8.15 of the Form 817, as amended. This item will be bid as an add/alternate and may be performed by Town forces.

Tack coat material – in accordance with the Form 817, as amended. Place tack coat on pavement before installing bituminous curbing.

Method of Measurement

This work will be measured for payment by the following:

Number of linear feet of Bituminous Concrete Lip Curb as measured along the top of the curb, as shown on the plans or as directed by the Engineer.

Tack coat material will not be measured or paid for separately but shall be included in the price bid per unit foot of curbing.

Basis of Payment

This work will be paid for as follows:

Contract unit price per each linear foot of bituminous concrete lip curb, complete and accepted in place, which price shall include all equipment, material, labor and work incidental to as specified herein.

TECHNICAL SPECIFICATIONS STORM SEWER SYSTEM

Description:

Pipe – (Size and Type):

The item for “Pipe (Size and Type)” shall include all labor, equipment and material to furnish and install the pipe of the size and type specified and as shown on the plans. All pipes shall be ADS (as shown on plans) and water-tight. Pipes for “Tie-ins” shall match existing size (generally 4” PVC). There shall be no separate payment for pipe excavation, bedding, stone, backfill, dewatering, sheeting, shoring, bracing, testing, compaction and alignment, but these items shall be included in the price bid per linear foot (LF). Each pipe length shall be laid straight and true to line and grade by means of laser system or other system approved in advance by the Town.

Catch Basin – (Type)

The item for Catch Basin shall include all labor, equipment and material required to furnish and install catch basins, sumps, risers, tops, frames and grates of the size and type specified and as shown on the plans. There shall be no separate payment for excavation, pervious backfill, dewatering, sheeting, shoring, bracing, bedding and compaction, or for connecting additional pipes encountered directly into the catch basin but these items shall be included in the price bid per each catch basin.

Construction Methods

1. Pervious structure backfill – in accordance with the Requirements of Article 2.16 of the Form 817, except that payment will be included in the item for “Type “ ” Catch Basin”.
2. Geotextile material – in accordance with the Requirements of Article 7.55 of the Form 817 except that payment shall be included in the item for which it is required.
3. Pipe of the size and type specified – in accordance with Article 6.51 of the Form 817 as amended and joints shall be rubber gasketed for RCP.
4. Pipe bedding – in accordance with Article M.08.03 of the Form 817, as amended.
5. Catch basins of the type specified and as shown on the plans – in accordance with Article 5.07 of the Form 817, as amended. All catch basins, manholes, pipes and other structures shall be cleaned out prior to final acceptance to the satisfaction of the Town prior to acceptance.
6. All masonry units shall be laid in full mortar beds.
7. Metal fittings for catch basins, junction boxes, manholes or drop inlets shall be set in full mortar beds or otherwise secured as shown on the plans.
8. Inlet and outlet pipes shall extend through the walls for a sufficient distance beyond the outside surface to allow for satisfactory connections, and the concrete or masonry shall be constructed around them neatly to prevent leakage along their outer surfaces. The pipe shall be cut flush with the inside face of the wall, or as shown on the plans.
9. When constructing a new drainage structure within a run of existing pipe, the section of existing pipe disturbed by the construction shall be replaced with new pipe of identical type and size extending from the drainage structure to the nearest joint of the existing pipe. All

drainage connections encountered during construction shall be reconnected to system by means of connection system approved by Town, unless otherwise directed.

10. Pervious material shall be used for backfilling the upper portion of the excavation made for catch basins and drop inlets down to the elevation of the invert of the outlet pipe but in no case to a depth greater than 3 feet (1 meter) below the top of the structure. Drainage openings shall be formed in the four walls of the structure at or immediately above the bottom of the pervious backfill to convey subsurface drainage. The openings shall be covered with geotextile. Depending on the masonry used in the walls, such openings shall be formed by the insertion of 2-inch (50-millimeter) pipes, omission of a header brick or by leaving two open vertical joints in the masonry.
11. Where shown on the plans or directed by the Engineer, the contractor shall plug existing pipes with cement masonry.
12. Town will furnish baseline and benchmark for installation of improvements. Contractor to provide all other field survey required. Owner to perform as-built survey upon completion of fieldwork.

Method of Measurement

This work will be measured for payment by the following:

Number of linear feet of the size and type specified to the inside wall of the structure being connected to.

Number of catch basins of the type specified for each one.

Number of pipe tie-ins, of the size and type specified, as shown on the plans or as directed, except that pipe tie-ins directly into a structure will not be measured or paid for separately.

Number of manhole or structure connection as shown on the plans or as directed.

Basis of Payment

This work will be paid for as follows:

Contract unit price per each manhole or structure connection and pipe tie-in, complete and accepted in place, which price shall include all equipment, material, labor and work incidental to as specified herein.

Contract unit price per each linear foot of pipe of the size and type specified, complete and accepted in place, which price shall include all labor, equipment, materials and work incidental to as specified herein.

TECHNICAL SPECIFICATIONS EXCAVATION, BACKFILL AND COMPACTION

Excavation, Backfill and Compaction:

Backfill and compaction for roadways, trenches or structures will not be measured or paid for separately, but shall be included in the unit price of the item. Contractor is responsible for saw cutting, tack coat, dewatering and dust control, which cost shall be paid for in the price bid for other items. Test borings were not performed.

Construction Methods

1. The excavation of existing roadway material, in accordance with the Requirements of Article 2.02 of the Form 817, as amended. Surplus material is the responsibility of the Contractor.
2. The excavation of trench material, in accordance with the Requirements of Article 2.05 of the Form 817, as amended. Surplus material is the responsibility of the Contractor.
3. Processed gravel base – in accordance with the Requirements of Article 3.04 of the Form 817, as amended.
4. Pervious structure backfill – in accordance with the Requirements of Article 2.16 of the Form 817, as amended, except that payment will be included in the item for which it is required.
5. Geotextile material – in accordance with the Requirements of Article 7.55 of the Form 817, as amended, except that payment shall be included in that of other item for which work is required, as shown on plans or as directed by Town.
6. Pipe bedding – in accordance with Article M.08.03 of the Form 817, and manufacturer's requirements, as amended.
7. Pipe tie-ins are roof, footing, yard, etc... pipes tied into the storm system main.
8. Town will furnish baseline and benchmark for installation of improvements. Contractor to provide all other field survey required. Owner to perform as-built survey upon completion of fieldwork.
9. The cost for clearing and grubbing shall be included in the grading items and no separate payment shall be made, except as noted in the plans. Otherwise, the terms and conditions of Section 2.01 of the Form 817 apply.
10. Edges of all trenches shall be neatly saw cut as part of the excavation item and contractor to ensure that edge of saw cut pavement is tack coated and ready for placing asphalt pavement upon completion of the trench backfill and compaction operation.

Method of Measurement

This work will not be measured for payment but the price for this material and work shall be included in the unit prices bid for other items, as shown on the plans, as specified or as directed by the Town.

TECHNICAL SPECIFICATIONS BITUMINOUS CONCRETE

Description

Work under this section includes the furnishing and placing of a smooth and dense bituminous concrete mixture with a uniform texture. Work under this section shall also include sawing and sealing of joints and cracks, provision of tack coat material and raising existing utility structures to grade. Materials for utility raising (rings, valve boxes, etc...) shall be provided by Town. All work performed under this item shall be in conformance with the State of Connecticut Department of Transportation "Standard Specifications for Roads, Bridges and Incidental Construction", Form 817 as amended. It is expressly stated that any specific references to the Form 817 is for the technical requirements stated therein and that this project is not an 817 project, nor are all of the other terms of the Form 817 applicable. Depth of asphalt in trench repair to match existing, adjacent bituminous concrete, except that minimum depth of new bituminous concrete shall be four inches (4"), compacted. Trench repair shall be in accordance with pay limits and details shown on plans.

Materials

Materials under this section shall conform to the requirements of Article M.04 of the Form 817.

Construction Methods

1. Bituminous concrete – in accordance with Article 4.06 of the Form 817, as amended.
2. Town will furnish baseline and benchmark for installation of improvements. Contractor to provide all other field survey required. Owner to perform as-built survey upon completion of fieldwork.
3. All vendors must provide a detailed delivery ticket for every load of material supplied. Town reserves the right to withhold payment for material for which no ticket is provided.

Method of Measurement

This work will be measured for payment by the following:

Number of tons of Bituminous Concrete – of Class shown on plans within pay limits, as specified or as directed by Town, spread and accepted in place, as documented by the net weight in tons subject to the theoretical yield computations as described in the Form 817,

Pavement saw cutting and tack coat will not be measured or paid for separately, but shall be included in price bid per ton of Bituminous Concrete.

Basis of Payment

This work will be paid for as follows:

Contract unit price per ton for bituminous concrete installed and accepted complete in

place, which price shall include all equipment, material, labor and work incidental to as specified herein.

TECHNICAL SPECIFICATIONS MAINTENANCE AND PROTECTION OF TRAFFIC

Article 9.71.01 – DOT Form 817 Description is supplemented by the following:

The Contractor shall maintain and protect a minimum of one lane of traffic in each direction, each lane on a paved travel path not less than 10 feet in width. Sidewalks to be closed shall be blocked off by means of “Sidewalk Closed” signs mounted on sawhorses and supplemented by barrels and cones as directed by Town.

Excepted therefrom will be those periods, during the allowable periods, when the Contractor is actively working, at which time the Contractor shall maintain and protect at least an alternating one-way traffic operation, on a paved travel path not less than 11 feet in width. The length of the alternating one-way traffic operation shall not exceed 300 feet and there shall be no more than one alternating one-way traffic operation within the project limits without prior approval of the Town.

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 allowed to close said driveways to perform the required work during those periods when the businesses are closed, unless permission is granted from the business owner to close the driveway during business hours. If a temporary closure of a residential driveway is necessary, the Contractor will coordinate with the owner to determine the time period of the closure.

Article 9.71.03 - Construction Method is supplemented as follows:

EXISTING SIGNING

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

GENERAL

Unpaved travel paths will only be permitted for areas requiring full depth and full width reconstruction, in which case, the Contractor will be allowed to maintain traffic on processed aggregate for a duration not to exceed 10 calendar days. The unpaved section shall be the full width of the road and perpendicular to the travel lanes. 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 (bridge) section by the end of a workday (work night), or as directed by the Town.

When the installation of the intermediate courses of bituminous concrete pavement is completed for the entire roadway, the Contractor shall 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 areas and the travel lanes, with drums spaced every 50 feet. At the end of the workday, if the vertical drop-off exceeds 3 inches, the Contractor shall provide a temporary traversable slope of 4:1 or flatter that is acceptable to the Town.

If applicable, when an existing sign is removed, it shall be either relocated or replaced by a new sign the same working day.

The Contractor shall not store any material on-site which would present a safety hazard to motorists or pedestrians (e.g., fixed object or obstruct sight lines).

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

Construction vehicles entering travel lanes at speeds less than the posted speed are interfering with traffic, and 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 posted speeds, in order to merge with existing traffic.

REQUIREMENTS FOR WINTER

Prior to winter, the Contractor shall install the final wearing surface and pavement markings on all sections of roadway repaired during that construction season.

The Contractor shall schedule a meeting with representatives of the Town of Watertown to determine what interim traffic control measures the Contractor must accomplish for the winter to provide safety to the motorist 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.

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 the safe and 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. 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 so as to command respect from the motorist.

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.

If a lane reduction taper is required to shift traffic, the entire length of the taper should be installed on a tangent section of roadway so that the entire taper area can be seen by the motorist.

Any existing signs that are in conflict with the traffic control patterns shall be removed, covered, or turned so that they are not readable by oncoming traffic.

When installing a traffic control pattern, a Buffer Area should be provided and this area shall be free of equipment, workers, materials and parked vehicles.

Traffic control patterns will not be required when vehicles are on an emergency patrol type activity or when a short duration stop is made and the equipment can be contained within the shoulder. Flashing lights and appropriate traffic person shall be used when required.

Although each situation must be dealt with individually, conformity with the typical traffic

control plans contained herein is required. In a situation not adequately covered by the typical traffic control plans, the Contractor must contact the Town Engineer for assistance prior to setting up a traffic control pattern.

PLACEMENT OF SIGNS

Signs must be placed in such a position to allow 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 TRAFFIC CONTROL PLANS

The 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 whenever possible.

The proper application of the traffic control plans and installation of traffic control devices depends on actual field conditions.

Adjustments to the traffic control plans shall be made only at the direction of the Town to improve the visibility of the signs and devices and to better control traffic operations. Adjustments to the traffic control plans shall be based on safety of work forces and motorists, abutting property requirements, driveways, side roads, and the vertical and horizontal curvature of the roadway.

The Town Engineer may require that the traffic control pattern be located significantly in advance of the work area to provide better sight line to the signing and safer traffic operations through the work zone.

Table I indicates the minimum taper length required for a lane closure based on the posted speed limit of the roadway. These taper lengths shall only be used when the recommended taper lengths shown on the traffic control plans cannot be achieved.

TABLE I – MINIMUM TAPER LENGTHS

POSTED SPEED LIMIT MILES PER HOUR	MINIMUM TAPER LENGTH IN FEET FOR A SINGLE LANE CLOSURE
30 OR LESS	180
35	250
40	320
45	540
50	600
55	660
65	780

SECTION 1. WORK ZONE SAFETY MEETINGS

1.a) Prior to the commencement of work, a work zone safety meeting will be conducted with representatives of the Town, 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. 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 Town. The agenda should include:

- Review Project scope of work and time
- Review "Prosecution and Progress"
- Review "Traffic persons"
- Review "Maintenance and Protection of Traffic"
- Review Contractor's schedule and method of operations.
Review areas of special concern: ramps, turning roadways, medians, lane drops, etc.
- Open discussion of work zone questions and issues Discussion of review and approval process for changes in contract requirements as they relate to work zone areas Discussion of interaction with Connecticut Department of Transportation personnel.

SECTION 2. GENERAL

- 2.a) If the required minimum number of signs and equipment (i.e., one High Mounted Internally Illuminated Flashing Arrow for each lane closed, two TMAs, Changeable Message Sign, etc.) are not available; the traffic control pattern shall not be installed.
- 2.b) The Contractor shall have back-up equipment (TMAs, High Mounted Internally Illuminated Flashing Arrow, Changeable Message Sign, construction signs, cones/drums, etc.) available at all times in case of mechanical failures, etc. The only exception to this is in the case of sudden equipment breakdowns in which the pattern may be installed but the Contractor must provide replacement equipment 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 loss time.
- 2.d) In cases of legitimate differences of opinion between the Contractor and the Inspection staff, the Inspection staff shall err on the side of safety. The matter shall be brought to the Town for resolution immediately or, in the case of work after regular business hours, on the next business day.

SECTION 3. INSTALLING AND REMOVING TRAFFIC CONTROL PATTERNS

- 3.a) Lane Closures shall be installed beginning with the advanced warning signs and proceeding forward toward the work area.
- 3.b) Lane Closures shall be removed in the reverse order, beginning at the work area, or end of the traffic control pattern, and proceeding back toward the advanced warning signs.
- 3.c) Stopping traffic may be allowed:
 - As per the contract for such activities as blasting, steel erection, etc.
 - During paving, milling operations, etc. 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 and traffic should not travel across the longitudinal joint or difference in roadway elevation.
 - To move slow moving equipment across live traffic lanes into the work area.
- 3.d) Under certain situations when the safety of the traveling public and/or that of the workers may be compromised due to conditions such as traffic volume, speed, roadside obstructions, or sight line deficiencies, as determined by the Town and/or State Police, traffic may be briefly impeded while installing and/or removing the advanced warning

signs and the first ten traffic cones/drums only. Appropriate measures shall be taken to safely slow traffic. Once the advanced warning signs and the first ten traffic cones/drums are installed/removed, the TMAs and sign crew shall continue to install/remove the pattern as described in Section 4c and traffic shall be allowed to resume their normal travel.

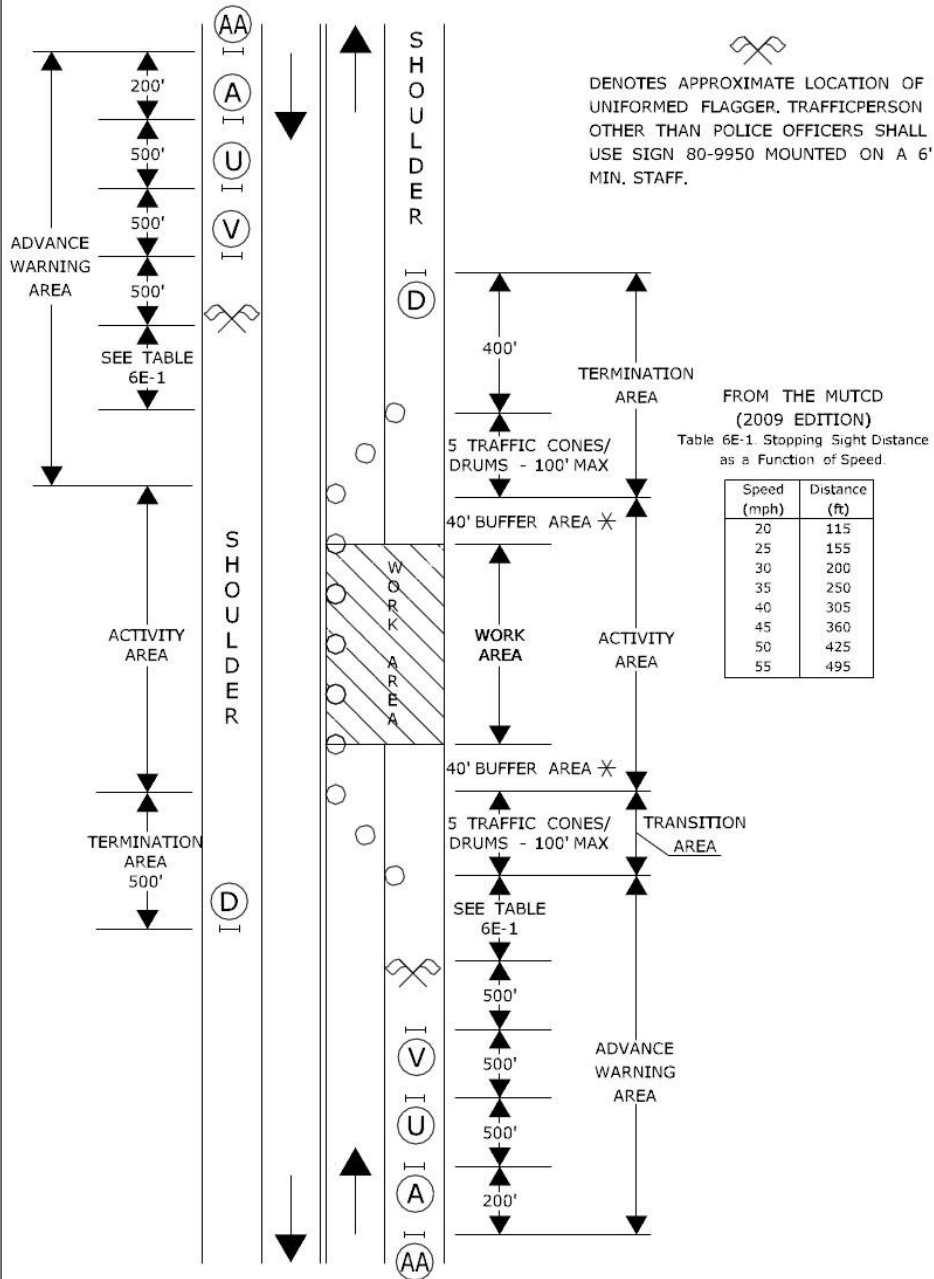
- 3.e) The Contractor must adhere to using the proper signs, placing the signs correctly, and ensuring the proper spacing of signs.
- 3.f) Additional devices are required on entrance ramps, exit ramps, and intersecting roads to warn and/or move traffic into the proper travel path prior to merging/exiting with/from the main line traffic. This shall be completed before installing the mainline pattern past the ramp or intersecting roadway.
- 3.g) Prior to installing a pattern, any conflicting existing signs shall be covered with an opaque material. Once the pattern is removed, the existing signs shall be uncovered.
- 3.h) On limited access roadways, workers are prohibited from crossing the travel lanes 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.

SECTION 4. USE OF TRAFFIC DRUMS AND TRAFFIC CONES

- 4.a) Traffic drums shall be used for taper channelization on limited-access roadways, ramps, and turning roadways and to delineate raised catch basins and other hazards.
- 4.b) 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.
- 4.c) Traffic Cones less than 42 inches in height shall not be used on limited-access roadways or on non-limited access roadways with a posted speed limit of 45 mph and above.
- 4.d) Typical spacing of traffic drums and/or cones shown on the Traffic Control Plans in the Contract are maximum spacings and may be reduced to meet actual field conditions as required.

WORK IN TRAVEL LANE AND SHOULDER TWO LANE HIGHWAY ALTERNATING ONE-WAY TRAFFIC OPERATIONS

SIGN FACE
108 SQ. FT (MIN.)

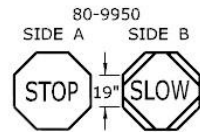
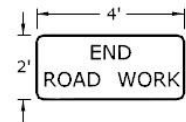


DENOTES APPROXIMATE LOCATION OF UNIFORMED FLAGGER, TRAFFICPERSON OTHER THAN POLICE OFFICERS SHALL USE SIGN 80-9950 MOUNTED ON A 6' MIN. STAFF.

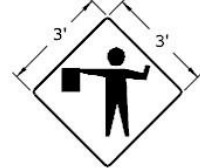
FROM THE MUTCD (2009 EDITION)
Table 6E-1. Stopping Sight Distance as a Function of Speed.

Speed (mph)	Distance (ft)
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495

D 80-9612



V 80-9803



U 80-9834



A 80-9603



AA 31-1906



○ TRAFFIC CONE OR TRAFFIC DRUM
✱ OPTIONAL ⊗ TRAFFIC DRUM → PORTABLE SIGN SUPPORT
⬅ HIGH MOUNTED INTERNALLY ILLUMINATED FLASHING ARROW



SCALE: NONE

CONSTRUCTION TRAFFIC CONTROL PLAN
PLAN 13 - SHEET 1 OF 2
SEE NOTES 1, 2, 4, 6, 7, 8

CONNECTICUT DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING & CONSTRUCTION

APPROVED

Charles S. Harlow
Charles S. Harlow
2012.06.05 15:55:23-04'00"
PRINCIPAL ENGINEER

WORK IN TRAVEL LANE AND SHOULDER TWO LANE HIGHWAY ALTERNATING ONE-WAY TRAFFIC OPERATIONS

SIGN FACE
108 SQ. FT (MIN.)

HAND SIGNAL METHODS TO BE USED BY UNIFORMED FLAGGERS

THE FOLLOWING METHODS FROM SECTION 6E.07, FLAGGER PROCEDURES, IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES," SHALL BE USED BY UNIFORMED FLAGGERS WHEN DIRECTING TRAFFIC THROUGH A WORK AREA. THE STOP/SLOW SIGN PADDLE (SIGN NO. 80-9950) SHOWN ON THE TRAFFIC STANDARD SHEET TR-1220 01 ENTITLED, "SIGNS FOR CONSTRUCTION AND PERMIT OPERATIONS" SHALL BE USED.

A. TO STOP TRAFFIC

TO STOP ROAD USERS, THE FLAGGER SHALL FACE ROAD USERS AND AIM THE STOP PADDLE FACE TOWARD ROAD USERS IN A STATIONARY POSITION WITH THE ARM EXTENDED HORIZONTALLY AWAY FROM THE BODY. THE FREE ARM SHALL BE HELD WITH THE PALM OF THE HAND ABOVE SHOULDER LEVEL TOWARD APPROACHING TRAFFIC.



B. TO DIRECT TRAFFIC TO PROCEED

TO DIRECT STOPPED ROAD USERS TO PROCEED, THE FLAGGER SHALL FACE ROAD USERS WITH THE SLOW PADDLE FACE AIMED TOWARD ROAD USERS IN A STATIONARY POSITION WITH THE ARM EXTENDED HORIZONTALLY AWAY FROM THE BODY. THE FLAGGER SHALL MOTION WITH THE FREE HAND FOR ROAD USERS TO PROCEED.



C. TO ALERT OR SLOW TRAFFIC

TO ALERT OR SLOW TRAFFIC, THE FLAGGER SHALL FACE ROAD USERS WITH THE SLOW PADDLE FACE AIMED TOWARD ROAD USERS IN A STATIONARY POSITION WITH THE ARM EXTENDED HORIZONTALLY AWAY FROM THE BODY. TO FURTHER ALERT OR SLOW TRAFFIC, THE FLAGGER HOLDING THE SLOW PADDLE FACE TOWARD ROAD USERS MAY MOTION UP AND DOWN WITH THE FREE HAND, PALM DOWN.



○ TRAFFIC CONE **OR** TRAFFIC DRUM
✱ OPTIONAL ✕ TRAFFIC DRUM ⇨ PORTABLE SIGN SUPPORT
◀ HIGH MOUNTED INTERNALLY ILLUMINATED FLASHING ARROW



SCALE: NONE

CONSTRUCTION TRAFFIC CONTROL PLAN
PLAN 13 - SHEET 2 OF 2
SEE NOTES 1, 2, 4, 6, 7, 8

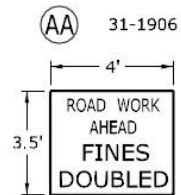
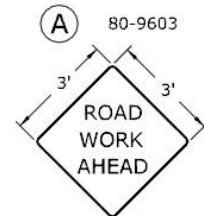
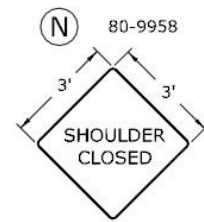
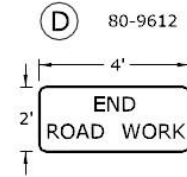
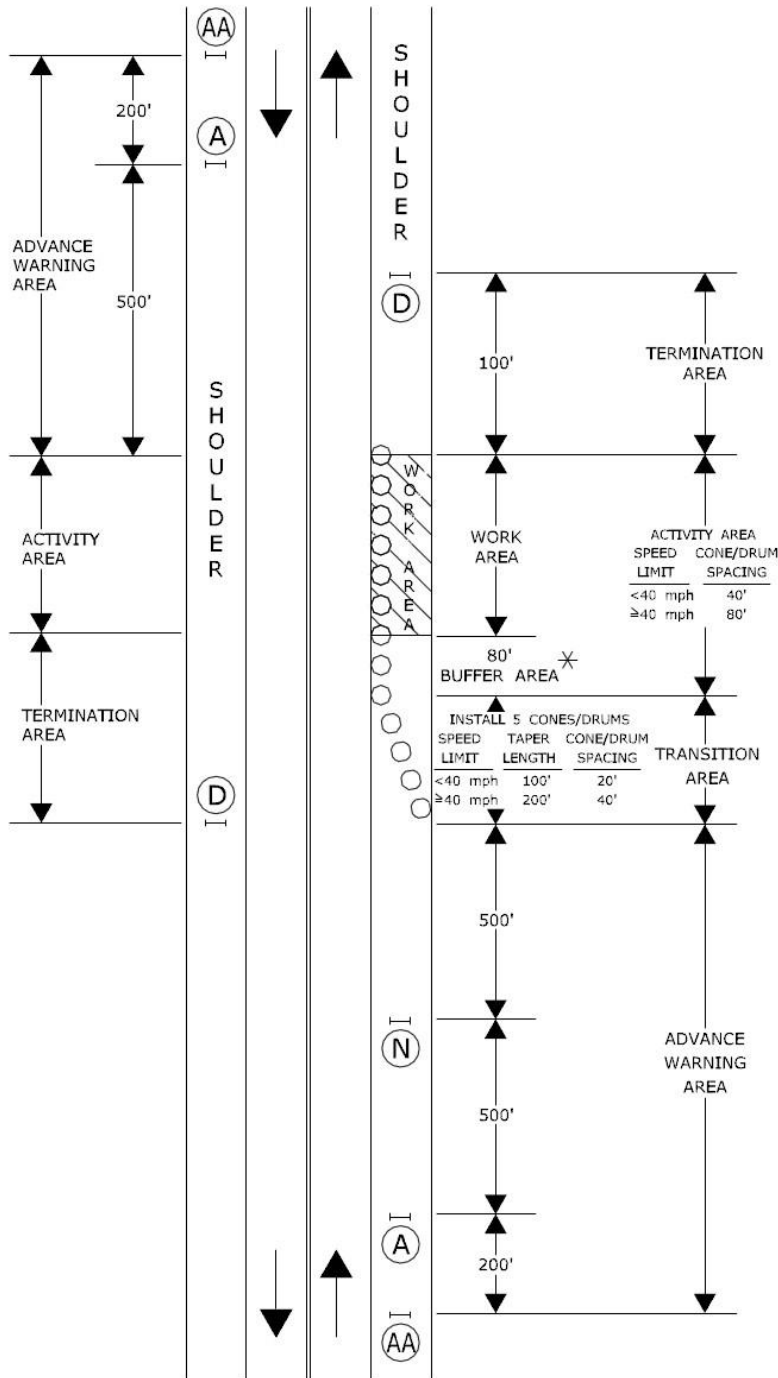
CONNECTICUT DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING & CONSTRUCTION

APPROVED

Charles S. Harlow
Charles S. Harlow
2012.06.05 15:55:45-04'00'
PRINCIPAL ENGINEER

WORK IN SHOULDER - TWO LANE HIGHWAY

SIGN FACE
71 SQ. FT (MIN.)



- TRAFFIC CONE **OR** TRAFFIC DRUM
- ✱ OPTIONAL ✕ TRAFFIC DRUM — PORTABLE SIGN SUPPORT
- ◀ HIGH MOUNTED INTERNALLY ILLUMINATED FLASHING ARROW



SCALE: NONE

CONSTRUCTION TRAFFIC CONTROL PLAN

PLAN 14

SEE NOTES 1, 2, 4, 7, 8

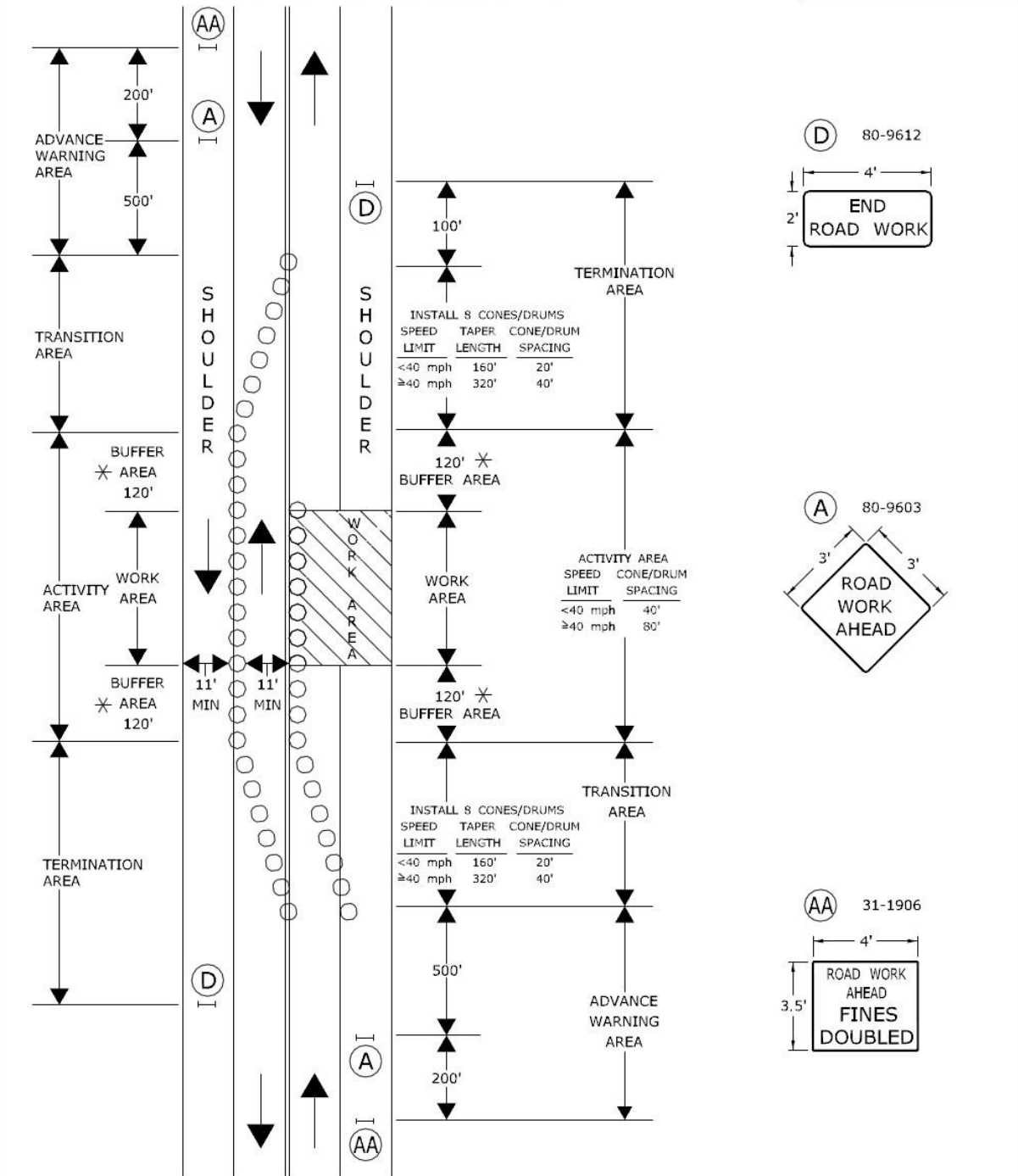
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BUREAU OF ENGINEERING & CONSTRUCTION

APPROVED

Charles S. Harlow
Charles S. Harlow
2012.06.05 15:56:09-04'00"
PRINCIPAL ENGINEER

WORK IN TRAVEL LANE AND SHOULDER TWO LANE HIGHWAY

SIGN FACE
62 SQ. FT (MIN.)



- TRAFFIC CONE OR TRAFFIC DRUM
- ✕ OPTIONAL ✕ TRAFFIC DRUM — PORTABLE SIGN SUPPORT
- ◀ HIGH MOUNTED INTERNALLY ILLUMINATED FLASHING ARROW



SCALE: NONE

CONSTRUCTION TRAFFIC CONTROL PLAN

PLAN 15

SEE NOTES 1, 2, 4, 6, 7, 8

CONNECTICUT DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING & CONSTRUCTION

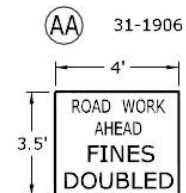
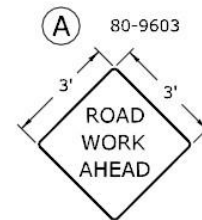
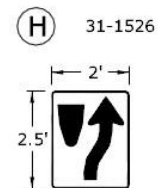
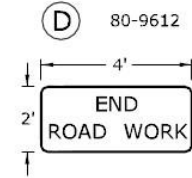
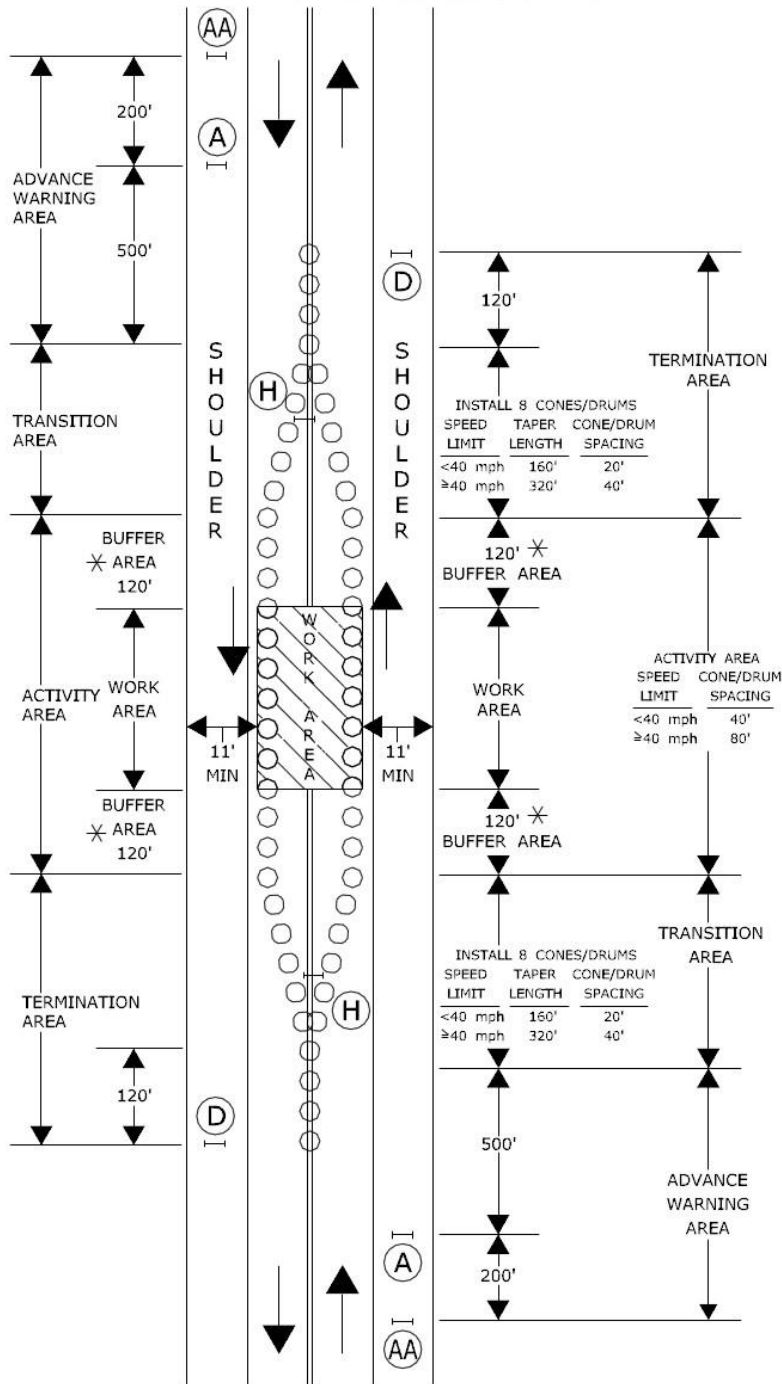
APPROVED

Charles S. Harlow
PRINCIPAL ENGINEER

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WORK IN MIDDLE OF ROADWAY TWO LANE HIGHWAY

SIGN FACE
72 SQ. FT (MIN.)



- TRAFFIC CONE OR TRAFFIC DRUM
- ✕ OPTIONAL ✕ TRAFFIC DRUM — PORTABLE SIGN SUPPORT
- ◀ HIGH MOUNTED INTERNALLY ILLUMINATED FLASHING ARROW



SCALE: NONE

CONSTRUCTION TRAFFIC CONTROL PLAN

PLAN 16

SEE NOTES 1, 2, 4, 6, 7, 8

CONNECTICUT DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING & CONSTRUCTION

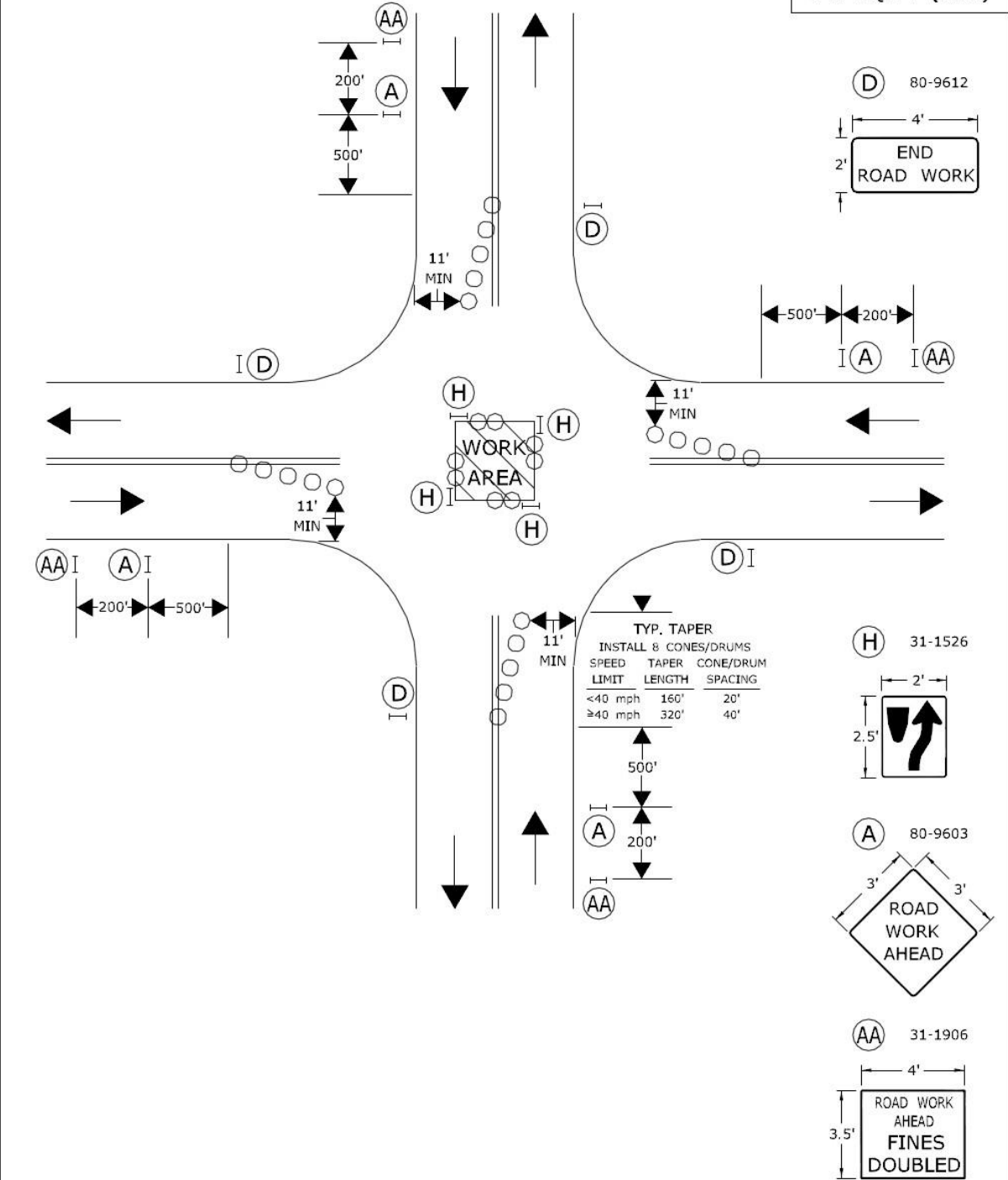
APPROVED

Charles S. Harlow
PRINCIPAL ENGINEER

Charles S. Harlow
2012.06.05 15:56:51-04'00"

WORK IN MIDDLE OF ROADWAY AT INTERSECTION

SIGN FACE
144 SQ. FT (MIN.)



CONNECTICUT DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING & CONSTRUCTION



SCALE: NONE

CONSTRUCTION TRAFFIC CONTROL PLAN

PLAN 17

SEE NOTES 1, 2, 4, 6, 7, 8

APPROVED

Charles S. Harlow
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2012.06.05 15:57:16-04'00"
PRINCIPAL ENGINEER

TECHNICAL SPECIFICATIONS TOPSOIL AND TURF ESTABLISHMENT

Description:

The item for “Topsoil and Turf Establishment” shall include all labor, equipment and material necessary to strip and stockpile existing topsoil, respread stockpiled topsoil to line, depth and grade at the locations as shown on the plans or as directed by the Engineer, rake out all stones 1” and greater in size as well as roots and other objectionable material, seed and mulch in accordance with Articles 9.44 and 9.50 of the Form 817, as amended, at the unit price per square yard.

Materials

Topsoil, fertilizer, seed, and mulch shall conform to the requirements of Section M.13 of the Form 817, as amended. Seed mix used shall be deemed suitable for use for residential lawns.

Construction Methods

1. Topsoil and Turf Establishment - in accordance with Articles 9.44 and 9.50 of the Form 817, as amended.
2. Topsoil is to be placed to the top of adjacent curbing. Any settlement that occurs is to be restored and reseeded as necessary to the top of the curb. Contractor shall restore topsoil, fertilize, water and seed until such time as the Engineer accepts the established vegetation growth.
3. Town will furnish baseline and benchmark for installation of improvements. Contractor to provide all other field survey required. Owner to perform as-built survey upon completion of fieldwork.

Method of Measurement

This work will be measured for payment by the following:

Number of square yards of Topsoil and Turf Establishment as shown on the plans or as directed by the Engineer. Maximum pay limit for trench restoration work, if included in project, shall be the pipe diameter plus two feet on each side of the pipe.

Basis of Payment

This work will be paid for as follows:

Contract unit price per each square yard of “Topsoil and Turf Establishment”, complete and accepted in place, which price shall include all equipment, mowing, watering, maintenance, material, labor and work incidental to as specified herein. Partial payment of up to 60% may be made for work completed, but not accepted, at the option of the Town.

TECHNICAL SPECIFICATIONS BITUMINOUS CONCRETE DRIVEWAY AND SIDEWALK REPAIR

Description:

All labor, equipment and materials for driveway and sidewalk excavation, repair, process gravel, base, pavement sawing and tack coat will not be measured or paid for separately, but shall be included in the unit price of the item “Bituminous Concrete Driveway and Sidewalk Repair”, in accordance with Form 817, Article 9.22, as amended, which shall include all labor equipment and material to provide a bituminous concrete driveway and sidewalk of the size and type as specified or as shown on the plans to match the original. Paved leak off shall be considered a driveway apron for construction purposes.

Construction Methods

Bituminous concrete driveways (and sidewalks) – in accordance with Article 9.22 of the Form 817, as amended.

Method of Measurement

This work will be measured for payment by the following:

Number of square yards of bituminous concrete driveways and sidewalks as shown or as directed by the Town. Saw cutting and tack coat shall not be measured or paid for separately but shall be included in the price bid per square yard.

Basis of Payment

This work will be paid for as follows:

Contract unit price per each square yard of bituminous concrete driveway or sidewalk, complete and accepted in place, which price shall include all equipment, material, labor and work incidental to as specified herein.

PROPOSAL

The following items shall be provided in accordance with the State of Connecticut Department of Transportation “Standard Specifications for Roads, Bridges and Incidental Construction”, Form 817, as amended.

<u>Description/Unit Price</u>	<u>Estimated Quantities</u>	<u>Computed Totals</u>
Item # 1 – 15” ADS The unit price of _____ Dollars and _____ Cents (\$ _____) per linear foot (LF).	44 LF	\$ _____
Item # 2 – 18” ADS The unit price of _____ Dollars and _____ Cents (\$ _____) per linear foot (LF).	523 LF	\$ _____
Item # 3 – Processed Gravel Base The unit price of _____ Dollars and _____ Cents (\$ _____) per cubic yard (CY)	532 CY	\$ _____
Item # 4 - Bituminous Concrete – Class 2 The unit price of _____ Dollars and _____ Cents (\$ _____) per ton.	130 Tons	\$ _____
Item # 5 – 24” ADS The unit price of _____ Dollars and _____ Cents (\$ _____) per linear foot (LF)	367 LF	\$ _____
Item # 6 – Type “C” Catch Basin The unit price of _____ Dollars and _____ Cents (\$ _____) per each (EA)	7 EA	\$ _____

Item # 7 – Connect to Existing Manhole/Structure

The unit price of

_____ Dollars
and _____ Cents
(\$ _____) per each (EA) 2 EA \$ _____

Item # 8 – Pipe Tie-In

The unit price of

_____ Dollars
and _____ Cents
(\$ _____) per each (EA) 2 EA \$ _____

Item # 9 – Bituminous Concrete Driveway

The unit price of

_____ Dollars
and _____ Cents
(\$ _____) per square yard (SY) 30 SY \$ _____

Item # 10 - Maintenance and Protection of Traffic

The lump sum price of

_____ Dollars
and _____ Cents
(\$ _____) per lump sum (LS) 1 LS \$ _____

Item # 11 – Bituminous Concrete Lip Curb (BCLC)

The unit price of

_____ Dollars
and _____ Cents
(\$ _____) per linear foot (LF) 200 LF \$ _____

Item # 12 – Topsoil & Turf Establishment

The unit price of

_____ Dollars
and _____ Cents
(\$ _____) per square yard (SY) 200 SY \$ _____

**Computed
Subtotal –**

\$ _____