

TOWN OF GLASTONBURY
ENGINEERING DIVISION
PW-1903

CONTRACT DOCUMENTS

FOR

SIDEWALK IMPROVEMENTS AT
VARIOUS LOCATIONS

BID # GL-2020-17

ADVERTISED ON: FEBRUARY 25, 2020

BID DUE DATE: MARCH 11, 2020

TOWN OF GLASTONBURY

INVITATION TO BID

<u>BID #</u>	<u>ITEM</u>	<u>DATE & TIME REQUIRED</u>
GL-2020-17	Sidewalk Improvements at Various Locations	March 11, 2020 at 11:00 A.M.

The Town of Glastonbury will receive Sealed Bids, in duplicate, for the installation of new concrete sidewalk totaling approximately 650 linear feet at four locations including Neipsic Road at Bridle Path Lane, Addison Road at the East Hartford Town Line, New London Turnpike at East Carriage Drive, and Bell Street at Belle Woods Drive. Bids must be submitted to the Office of the Purchasing Agent, Town Hall (second level), 2155 Main Street, Glastonbury, CT 06033, Attention: Mary F. Visone, Purchasing Agent, no later than the time and date indicated. All bids will be publicly opened and read aloud. No late bids will be accepted.

The Town reserves the right to waive informalities or reject any or all bids when said action is deemed to be in the best interests of the Town.

Bid Forms, Plans, and Specifications may be obtained at no cost from the Town's website at www.glastonbury-ct.gov or the State's website at www.das.state.ct.us.

Prevailing Wages: The contractor must comply with Section 31-53 of the Connecticut General Statutes as amended, including annual adjustments in prevailing wages.

The Town of Glastonbury is an Affirmative Action/Equal Opportunity Employer. Minority / Women / Disadvantaged Business Enterprises are encouraged to bid.

Mary F. Visone
Purchasing Agent

TABLE OF CONTENTS

SECTION

[INFORMATION FOR BIDDERS](#)

IB 1 - 4

[GENERAL CONSTRUCTION SPECIFICATIONS](#)

GCS 1 - 4

[SPECIAL CONDITIONS](#)

SC 1 - 7

[BID PROPOSAL](#)

BP 1 - 3

[SPECIAL PROVISIONS](#)

SP 1 - 57

[ATTACHMENT A: STATE WAGE RATES](#)

[ATTACHMENT B: TOWN OF EAST HARTFORD PERMIT REQUIREMENTS](#)

[ATTACHMENT C: CONSTRUCTION PLANS](#)

**SIDEWALK IMPROVEMENTS AT VARIOUS LOCATIONS
INFORMATION FOR BIDDERS**

BID #GL-2020-17

1. Sealed bids (**one original and one copy**) on the attached Bid Forms will be received at the Office of the Purchasing Agent, Town Hall, 2155 Main Street, Glastonbury, Connecticut 06033 (second level). At the designated time of opening, they will be publicly opened, read, recorded and placed on file.
2. Whenever it is deemed to be in the best interest of the Town, the Town Manager, Purchasing Agent or designated representative shall waive informalities in any and all bids. The right is reserved to reject any bid when such action is deemed to be in the best interest of the Town of Glastonbury.
3. The award will be on the basis of bid total cost of the lowest qualified, responsible, and responsive bidder unless otherwise specified. The bid total cost shall be arrived at by the mathematical calculation of the unit price multiplied times the number of units specified for each line item, and the total sum of all line items in the bid. In the event that the Town finds computational errors in a respondent's bid proposal, the bid total cost shall be recalculated by the Town based on the unit prices contained in the bid proposal.
4. Bids will be carefully evaluated as to conformance with stated specifications.
5. The envelope enclosing your bid should be clearly marked with your company name and address, bid number, bid title, time of bid opening, and date.
6. Specifications must be submitted complete in every detail and, when requested, samples shall be provided. If a bid involves any exception from stated specifications, they must be clearly noted as exceptions, underlined, and attached to the bid.
7. The Bid Documents contain the provisions required for the requested item. Information obtained from an officer, agent, or employee of the Town or any other person shall not affect the risks or obligations assumed by the Bidder or relieve him/her from fulfilling any of the conditions of the bid.
8. Each Bidder is held responsible for the examination and/or to have acquainted themselves with any conditions at the job site which would affect their work before submitting a bid. Failure to meet this criteria shall not relieve the Bidder of the responsibility of completing the bid without extra cost to the Town of Glastonbury.
9. Any bid may be withdrawn prior to the above-scheduled time for the opening of bids or authorized postponement thereof. Any bid received after the time and date specified shall not be considered. No Bidder may withdraw a bid within sixty (60) days after the actual date of the opening thereof. Should there be reasons why a bid cannot be awarded within the specified period, the time may be extended by mutual agreement between the Town and the Bidder.
10. Each bid must be accompanied by a bid bond payable to the Town for ten percent (10%) of the total amount of the 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. A certified check may be used in lieu of a bid bond. The Town of Glastonbury will not be liable for the accrual of any interest on any certified check submitted. Cashier's checks will not be accepted.
11. A 100% Performance and a 100% Payment bond are required of the successful bidder. This bond shall cover all aspects of the specification and shall be delivered to the Purchasing Agent prior to the issuance of a purchase order. The Performance and Payment Bond will be returned upon the delivery and acceptance of the bid items.
12. The Bidder agrees and warrants that in the submission of this sealed Bid, they will not discriminate or permit discrimination against any person or group of persons on the grounds of

**SIDEWALK IMPROVEMENTS AT VARIOUS LOCATIONS
INFORMATION FOR BIDDERS**

BID #GL-2020-17

race, color, religion, national origin, sex, or physical disability including, but not limited to blindness, unless it is shown by such Bidder that such disability prevents performance of that which must be done to successfully fulfill the terms of this sealed Bid or in any manner which is prohibited by the laws of the United States or the State of Connecticut: and further agrees to provide the Human Relations Commission with such information requested by the Commission concerning the employment practices and procedures of the Bidder. An Affirmative Action Statement will be required by the successful Bidder.

13. Bidder agrees to comply with all of the latest Federal and State Safety Standards and Regulations and certifies that all work required in this bid will conform to and comply with said standards and regulations. Bidder further agrees to indemnify and hold harmless the Town for all damages assessed against the Town as a result of Bidder's failure to comply with said standards and/or regulations.
14. All correspondence regarding any purchase made by the Town of Glastonbury shall reference the Town's purchase order number. Each shipping container shall clearly indicate both Town purchase order number and item number.
15. Bidder is required to review the Town of Glastonbury Code of Ethics adopted July 8, 2003 and effective August 1, 2003 and revised October 29, 2013 and effective November 28, 2013. Bidder shall acknowledge that they have reviewed the document in the area provided on the bid/proposal response page (BP). The selected Bidder will also be required to complete and sign an Acknowledgement Form prior to award. The Code of Ethics and the Acknowledgement Form can be accessed at the Town of Glastonbury website at www.glastonbury-ct.gov. Upon entering the website scroll down to click on **Bids & Proposals Icon** which will bring you to the links for the **Code of Ethics** and the **Acknowledgement Form**.
16. **Non-Resident Contractors:** (if applicable)
Upon award the Town is required to report names of nonresident (out of state) Contractors to the State of Connecticut, Department of Revenue Services (DRS) to ensure that Employment Taxes and other applicable taxes are being paid by Contractors. **A single surety bond for 5% of the entire contract price is required to be filed with DRS by any unverified nonresident prime or general contractor (if awarded) where the contract price for the project is \$250,000 or more.** The contractor will be required to promptly furnish to the Town a copy of the **Form AU-968 - Certificate of Compliance** issued by the State of Connecticut, DRS. See State of Connecticut **Notice SN 2012 (2)**.
17. Bidder shall include on a sheet(s) attached to its proposal a complete disclosure of all past and pending mediation, arbitration and litigation cases that the bidder or its principals (regardless of their place of employment) have been involved in for the most recent five years. Please include a statement of the issues in dispute and their resolution. Acceptability of Bidder based upon this disclosure shall lie solely with the Town.
18. Bidder or its principals, regardless of their place of employment, shall not have been convicted of, nor entered any plea of guilty, or nolo contendere, or otherwise have been found civilly liable or criminally responsible for any criminal offense or civil action. Bidder shall not be in violation of any State or local ethics standards or other offenses arising out of the submission of bids or proposals, or performance of work on public works projects or contracts.
19. It is the responsibility of the bidder to check the Town's website before submitting bid for addendums posted prior to bid opening.

20. **State Prevailing Wage Rates:**

Respondents shall comply with State Statutes concerning Employment and Labor Practices, if applicable, and Section 31-53 of the Connecticut General Statutes, as amended (Prevailing Wages). Wage Rate Determination for this project from the State of Connecticut is included in the Bid Documents. Certified payrolls for site labor shall be submitted weekly to the Town's Representative or his designee on the correct State of Connecticut form (see RFP). The Town reserves the right to, without prior notice, audit payroll checks given to workers on site in order to ascertain that wages and fringe benefits are being paid as required by the State of Connecticut. Please make special note of the State requirement to adjust wage and fringe benefit rates on each July 1st following the original published rates.

NOTE that respondent is to include in its proposal all costs required by such annual increases in the PREVAILING RATES. NO escalation clauses are to be included in the respondent's proposal and NO escalation clauses will be in the Contract Agreement. Respondent is to anticipate any future increases and include these costs in the proposal response.

Contractor's invoices will not be paid if certified payrolls are incomplete, incorrect or not received in a timely manner.

All Apprentices must be registered with the State of Connecticut and their number shall not exceed the number allowed by law. Otherwise, all workers must be paid at least the Journeyman rate listed including benefits.

OSHA SAFETY AND HEALTH CERTIFICATION

Effective July 1, 2009: Any Mechanic, Laborer, or Worker, who performs work in a classification listed on the prevailing wage rate schedule on any public works project covered under C.G.S. Section 31-53, both on site and on or in the public building, must have completed a federal OSHA Safety and Health course within the last 5 years.

21. Each bid shall also include a description of three similar (3) projects completed by the bidder with references to demonstrate successful experience with similar projects. Please provide project name, contact information and contract value.

22. **Compliance with Town Ordinance Prohibiting Natural Gas Waste & Oil Waste From Natural Gas Extraction Activities or Oil Extraction Activities:** If this bid is for the construction, repair or maintenance of Town owned and/or maintained roads or real property within the Town related to either (a) the purchase or acquisition of materials by the Town to be used to construct, repair or maintain any Town owned and/or maintained road or real property within the Town or (b) the performance of services for the Town to construct, repair or maintain any Town owned and/or maintained road or real property within the Town, the Bidder shall provide the following signed statement to the Town in its bid response, which shall be a certification under penalty of perjury by the Bidder: **(Bidder is asked to include this statement on a separate piece of paper with their bid response.)**

**SIDEWALK IMPROVEMENTS AT VARIOUS LOCATIONS
INFORMATION FOR BIDDERS**

BID #GL-2020-17

*“The undersigned Bidder, _____, hereby submits a bid for materials, equipment and/or services for the Town of Glastonbury. The bid is for bid documents titled **“Sidewalk Improvements at Various Locations GL-2020-17”**. The undersigned Bidder hereby certifies under penalty of perjury that in connection with the bid and, if it is awarded the purchase order or contract by the Town, in connection with any purchase order or contract: (1) no materials containing natural gas waste or oil waste from natural gas extraction activities or oil extraction activities shall be provided to the Town or shall be used in providing any services to the Town by the undersigned Bidder or any contractor, sub-contractor or agent of the undersigned Bidder; (b) nor will the undersigned Bidder or any contractor, subcontractor or agent of the undersigned Bidder apply any natural gas waste or oil waste from natural gas extraction activities or oil extraction activities to any publicly owned and/or maintained road or real property within the Town of Glastonbury in performing its obligations under the purchase order or contract. The undersigned Bidder hereby agrees and acknowledges that this requirement shall be a term of the purchase order or contract, if it awarded the purchase order or contract by the Town, and any breach of this provision shall be a breach of the purchase order or contract.”*

IMPORTANT:

- Failure to comply with general rules may result in disqualification of the Bidder.
- Municipal projects are exempt from Federal Excise Taxes, as well as, State of Connecticut Sales, Use and Service Taxes and should not be include in the Bidder’s proposal.

NOTE:

Any technical questions regarding this bid shall be made in writing (email acceptable) and directed to Stephen M. Braun, P.E., Assistant Town Engineer, 2155 Main Street, PO Box 6523, Glastonbury, CT 06033; Stephen.braun@glastonbury-ct.gov . Telephone (860) 652-7743 between the hours of 8:00 a.m. – 4:30 p.m. For administrative questions concerning this bid/proposal, please contact Mary F. Visone, Purchasing Agent, at (860) 652-7588 or email the Purchasing Department at purchasing@glastonbury-ct.gov. All questions, answers, and/or addenda, as applicable, will be posted on the Town’s website at www.glastonbury-ct.gov (Upon entering the website scroll down to click on Bids & Proposals Icon, then scroll down page to see the active bid table. You must click the Bid Title to view all bid details and document links). The request must be received at least three (3) business days prior to the advertised response deadline. **It is the respondent’s responsibility to check the website for addenda prior to submission of any bid/proposal.**

01.00 WORKMANSHIP, MATERIALS AND EMPLOYEES

- 01.01 Wherever in this contract the word “Engineer” is used, it shall be understood as referring to the Assistant Town Engineer acting through any assistants duly authorized.
- 01.02 The entire work described herein shall be completed in accordance with the plans and specifications to the full intent and meaning of the same. Unless otherwise specified, all materials incorporated in the permanent work shall be new, and both workmanship and material shall be of good quality. The Contractor shall, if required, furnish satisfactory evidence as to the kind and quality of materials.
- 01.03 The wording “furnish”, “install”, “construct”, “furnish and install”, or any similar terms, unless specifically noted to the contrary, shall include all labor, materials, water, tools, equipment, light, power, transportation, and any other services required for the completion of the work.
- 01.04 The Contractor shall at all times enforce strict discipline and good order among his employees, and shall seek to avoid employing on the work any unfit person or anyone not skilled in the work assigned to him.

02.00 SUPERINTENDENT

- 02.01 The Contractor shall keep on the work during its progress, in the absence of the Contractor, a competent Superintendent. The Superintendent shall be acceptable to the Engineer and shall fully represent the Contractor. All directions given to the Superintendent shall be binding as if given to the Contractor.

03.00 PRECONSTRUCTION MEETING

- 03.01 A Preconstruction Meeting will be held with the Engineer, Contractor, and any private utility company prior to commencing any work. The Engineer shall arrange the meeting based on a mutually convenient time.

04.00 PERMITS

- 04.01 Other than local permits, all permits, licenses, and fees required for the performance of the Contract work shall be secured and paid for by the Contractor.
- 04.02 A portion of the proposed sidewalk installation located on Addison Road will be installed beyond the Glastonbury Town Line within the right of way located in the Town of East Hartford. The Contractor is responsible for obtaining all the necessary permits, licensing and bonding as required by the Town of East Hartford for completion and acceptance of this work. Contractor is also responsible for scheduling of all inspections with the Town of East Hartford related to this portion of work.

05.00 PROPERTY ACCESS

- 05.01 The Contractor shall take all proper precautions to protect from injury or unnecessary interference, and provide proper means of access to abutting property where the existing access is cut off by the Contractor.

**SIDEWALK IMPROVEMENTS AT VARIOUS LOCATIONS
GENERAL CONSTRUCTION SPECIFICATIONS**

BID #GL-2020-17

05.02 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 places for travelers, vehicles, and access to hydrants.

05.03 The Contractor shall make arrangements with the adjacent property owners for such trespass as he may reasonably anticipate in the performance of the work. All such arrangements shall be reported, in writing, to the Engineer.

06.00 PROTECTION OF THE PUBLIC AND OF WORK AND PROPERTY

06.01 The Contractor shall continuously maintain adequate protection of all work from damage, and shall take all reasonable precautions to protect the Town from injury or loss arising in connection with the Contract.

06.02 The Contractor shall adequately protect adjacent private and public property as provided by law and the Contract Documents.

06.03 The Contractor shall make good any damage, injury, or loss of his work and to the property of the Town resulting from lack of reasonable protective precautions.

07.00 EXISTING IMPROVEMENTS

07.01 The Contractor shall conduct his work so as to minimize damage to existing improvements. Except where specifically stated otherwise in the specifications, drawings, or as directed by the Engineer, it will be the responsibility of the Contractor to restore to their original condition, as near as practical, all improvements on public or private property. This shall include:

- a. Property within and adjacent to the side of installation such as shrubs, walks, driveways, fences, etc.
- b. Utility mains, ducts, poles, and services. The Contractor is hereby notified that utilities, if/where shown on the plans, are at approximate locations. These locations are subject to possible errors in the source of information and errors in transcription. The Contractor shall make certain of the exact location of all mains, ducts, poles, and services prior to excavation.

08.00 SEPARATE CONTRACTS

08.01 The Engineer reserves the right to let other contracts in connection with this work. The Contractor shall afford other contractors reasonable opportunity for the introduction and storage of their materials and the execution of their work, and shall properly connect and coordinate his work with theirs. Wherever work being done by the Town of Glastonbury forces or by other contractors is contiguous to work covered by this Contract, the respective rights of the various interests involved shall be established by the Engineer to secure the completion of the various portions of the work.

09.00 INSPECTION OF WORK

09.01 The Town shall provide sufficient personnel for the inspection of the work.

09.02 The Engineer 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.

09.03 If the specifications or the Engineer's instructions require any work to be specially tested or approved, the Contractor shall give the Engineer timely notice of its readiness for inspection and, if the inspection is by another authority other than the Engineer, of the date fixed for such inspection. Inspections by the Engineer shall be made promptly. If any work should be covered up without approval or consent of the Engineer, it must, if required by the Engineer, be uncovered for examination and properly restored at the Contractor's expense.

09.04 Reinspection of any work may be ordered by the Engineer. If such work is found to be in accordance with the Contract Documents, the Town shall pay the cost of reinspection and replacement. If such work is not in accordance with the Contract Documents, the Contractor shall pay such cost.

10.00 RIGHT TO INCREASE OR DECREASE WORK

10.01 The Town shall have the right to increase or decrease the amount of work herein specified as may be required.

11.00 RIGHT OF ENGINEER TO STOP WORK FOR WEATHER CONDITIONS

11.01 Should the work, in the opinion of the Engineer, be 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 Engineer, and shall not resume them until ordered to do so by the Engineer when the weather conditions are favorable. The Contractor shall, upon such orders, discontinue work, remove all materials or appliances for or in use upon the work, and place the streets in proper condition for use by the public during the time the work is suspended as herein provided, without cost to the Town.

12.00 CONTRACTOR TO BE RESPONSIBLE FOR IMPERFECT WORK OR MATERIALS

12.01 Any faithful work or imperfect material that may be discovered before the acceptance and the payment of the work shall be corrected upon the order of the Engineer. The acceptance and payment of the work does not in any manner relieve the Contractor of his obligation to construct work in the proper manner and the use of materials herein specified.

13.00 TOWN MAY NOTIFY CONTRACTOR IF WORK IS NOT CARRIED ON SATISFACTORILY

13.01 If, in the opinion of the Engineer, the Contractor is not proceeding with 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 or the Contract and specifications, the Engineer may serve notice on the Contractor to adopt such methods as will ensure the completion of the work in the time specified.

13.02 If, within five days after the Engineer has notified the Contractor that his work is not being carried on satisfactorily as before mentioned, the Engineer shall have the right to annul the Contract and manage the work under the direction of the Engineer, or re-let, for the

very best interest of the Town as a new contract, the work under said new Contract shall be considered the responsibility of the defaulting Contractor.

13.03 Additional costs incurred over and above the original Contract shall be borne by the Contractor.

14.00 DEDUCTIONS FOR UNCORRECTED WORK

14.01 If the Engineer deems it inexpedient to correct work that has been damaged or that was not done in accordance with the Contract, an equitable deduction from the Contract price shall be made therefor.

14.02 The Contractor shall promptly remove from the premises all materials condemned by the Engineer as failing to meet Contract requirements, whether incorporated in the work or not, and the Contractor shall promptly replace and re-execute his own work in accordance with the Contract and without expense to the Town, and shall bear the expense of making good all work by other contractors destroyed or damaged by such removal or replacement.

14.03 If the Contractor does not remove such condemned work and materials as promptly as possible after written notice, the Engineer may remove them and store the materials at the expense of the Contractor.

15.00 CLEANING UP

15.01 The Contractor must remove all debris of every description as the work progresses and leave the surroundings in a neat and orderly condition to the satisfaction of the Engineer.

15.02 Upon completion, and before acceptance 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.

16.00 ROYALTIES AND PATENTS

16.01 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 Glastonbury harmless from loss on account thereof, except that the Town of Glastonbury shall be responsible for all such loss when a particular manufacturer, product, or process is specified by the Town of Glastonbury.

01.00 NOTICE TO CONTRACTOR

01.01 Intent of Contract: The intent of the Contract is to prescribe a complete work or improvement that the Contractor undertakes to do, in full compliance with the specifications, plans, special provisions, proposal, and Contract. The Contractor shall perform all work in close conformity with the lines, grades, typical cross-sections, dimensions, and other data shown on the plans or as modified by written orders, including the furnishing of all materials, implements, machinery, equipment, tools, supplies, transportation, labor, and all other things necessary to the satisfactory prosecution and completion of the project.

01.02 The Contractor is hereby alerted to the fact that the State of Connecticut Department of Transportation Standard Specifications for Roads, Bridges, Facilities and Incidental Construction, Form 817 (Form 817) latest edition with supplements thereto are the governing specifications and are to be considered part of the Contract Documents. The Form 817 shall not be provided by the Town and any cost associated therewith shall be the responsibility of the Contractor. In case of any discrepancy between the Contract Drawings or Specifications and the Form 817, the matter shall immediately be submitted to the Engineer. The Engineer shall have sole authority in resolving any discrepancies.

01.03 Much time and effort has gone into this project in an effort to minimize impact on trees and adjacent properties. Extreme care shall be taken by the Contractor to honor commitments made by the Town. Prior to doing any work, the Contractor should meet with the Engineer to become familiar with the conditions encountered and commitments made.

02.00 COMMUNICATIONS

02.01 All notices, demands, requests, instructions, approvals, proposals, and claims must be in writing.

02.02 Any notice to, or demand upon, the Contractor shall be sufficiently given if delivered at the office of the Contractor stated on the signature page of the Agreement (or at such other office as the Contractor may, from time to time, designate) in a sealed, postage-prepaid envelope or delivered with charges prepaid to any telegraph company for transmission, in each case addressed to such office.

02.03 All papers required to be delivered to the Town shall, unless otherwise specified in writing to the Contractor, be delivered to the Town Engineer/Manager of Physical Services, 2155 Main Street, Glastonbury, CT 06033, and any notice to, or demand upon, the Town shall be delivered at the above address in a sealed, postage-prepaid envelope or delivered with charges prepaid to any telegraph company for transmission, in each case addressed to such office or to such other representatives of the Town, or to such other address as the Town may subsequently specify in writing to the Contractor for such purpose.

02.04 Any such notice shall be deemed to have been given as of the time of actual delivery or, in case of mailing, when the same should have been received in due course of post or, in the case of telegrams, at the time of actual receipt, as the case may be.

03.00 PARTIAL USE OF IMPROVEMENTS

03.01 The Town may, at its election, give notice to the Contractor and place in use those sections of the work that have been completed, inspected and can be accepted as complying with the Contractor Documents and if, in its opinion, each such section is reasonably safe and fit for the use and accommodation for which it was intended, provided:

- a. The use of such sections of the work shall not materially impede the completion of the remainder of the work by the Contractor.
- b. The Contractor shall not be responsible for any damages or maintenance costs due directly to the use of such sections.
- c. The use of such sections shall in no way relieve the Contractor of his liability due to having used defective materials or to poor workmanship.
- d. The period of guarantee shall not begin until the date of the final acceptance of all work required under this Contract.

04.00 INSURANCE

04.01 The Bidder shall, at its own expense and cost, obtain and keep in force during the entire duration of the Project or Work the following insurance coverage covering the Bidder and all of its agents, employees and sub-contractors and other providers of services and shall name the **Town of Glastonbury and its employees and agents as an Additional Insured** on a primary and non-contributory basis to the Bidders Commercial General Liability and Automobile Liability policies. **These requirements shall be clearly stated in the remarks section on the Bidders Certificate of Insurance.** Insurance shall be written with insurance carriers approved in the State of Connecticut and with a minimum Best's Rating of A-VIII. In addition, all carriers are subject to approval by the Town. Minimum Limits and requirements are stated below:

- a. Worker's Compensation Insurance:
 - Statutory Coverage
 - Employer's Liability
 - \$1,000,000 each accident/\$1,000,000 disease-policy limit/\$1,000,000 disease each employee
 - A Waiver of Subrogation shall be provided in favor of the Town of Glastonbury and its employees and agents.
- b. Commercial General Liability:
 - Including Premises and Operations, Products and Completed Operations, Personal and Advertising Injury, Contractual Liability and Independent Contractors
 - Limits of Liability for Bodily Injury and Property Damage
Each Occurrence: \$1,000,000
Aggregate: \$2,000,000
(The Aggregate Limit shall apply separately to each job.)
 - A Waiver of Subrogation shall be provided in favor of the Town of Glastonbury and its employees and agents.

- c. Automobile Insurance:
 - Including all owned, hired, borrowed, and non-owned vehicle
 - Limit of Liability for Bodily Injury and Property Damage
Per Accident: \$1,000,000
 - A Waiver of Subrogation shall be provided in favor of the Town of Glastonbury and its employees and agents.

- d. Umbrella of Excess Liability:
 - State in the Remarks Section that coverage is follow form.
 - Limit of Liability Each Occurrence \$1,000,000
Aggregate \$1,000,000

- e. Owner's and Contractor's Protective Liability Insurance:

With respect to the Contractor's Project operations and also those of its subcontractors, the Contractor shall carry, for and on behalf of the Town of Glastonbury, insurance which shall provide coverage of at least \$1,000,000 for each accident or occurrence resulting in damages from (1) bodily injury to or death of persons and/or (2) injury to or destruction of property. Subject to that limit per accident or occurrence, the policy shall provide an aggregate coverage of at least \$2,000,000 for all pertinent damages arising during the policy period

04.02 The Bidder shall direct its Insurer to provide a Certificate of Insurance to the Town before any work is performed. The Contractor shall be responsible to notify the Town 60 days in advance with written notice of cancellation or non-renewal. The Certificate shall evidence all required coverage. The Bidder shall provide the Town copies of any such insurance policies upon request.

04.03 INDEMNIFICATION: To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the Town and its consultants, agents, and employees from and against all claims, damages, losses and expenses, direct, indirect or consequential (including but not limited to fees and charges of engineers, attorneys and other professionals and court and arbitration costs) to the extent arising out of or resulting from the performance of the Contractor's work, provided that such claim, damage, loss or expense is caused in whole or in part by any negligent act or omission by the Contractor, or breach of its obligations herein or by any person or organization directly or indirectly employed or engaged by the Contractor to perform or furnish either of the services, or anyone for whose acts the Contractor may be liable.

05.00 WORK BY OTHERS

05.01 Private utilities, contractors, developers or other parties may be expected to be working within the Contract area during this Contract. It shall be the responsibility of the Contractor to coordinate his work with the work being done by others in order that the construction shall proceed in an efficient and logical manner. The Contractor shall have no claim or claims whatever against the Town, the Engineer, or other parties due to delays or other reasons caused by the work by others or his failure to coordinate such work.

06.00 CONTRACTOR'S WORK AND STORAGE AREA

06.01 The Contractor shall contact the Town to determine if any specific locations will be designated, or gain its approval prior to using any area for storage of equipment, materials and trailers during the period of this Contract. The Contractor shall confine his

work/storage area to the limits as designated or approved and shall be responsible for the security of the work/storage area. Upon completion of the Contract, the Contractor shall remove all equipment and materials, except as otherwise specified, and restore the site to its original condition as approved by the Engineer and at no cost to the Town.

07.00 DISPOSAL AREA

07.01 The Tryon Street Bulky Waste Facility will be available to the Contractor, at no charge, for disposal of materials that are accepted at that facility. Waste disposal guidelines for the Bulky Waste facility are published on the Town web site at the address shown below. Each bidder shall have reviewed and understand these guidelines prior to submitting a bid for the project.

<https://www.glastonbury-ct.gov/home/showdocument?id=28043>

Acceptable materials generally include such materials as brush, stumps, demolition materials, and excess excavated earth materials. Unacceptable materials generally include such items as carpet, appliances, upholstered furniture; hazardous wastes such as pesticides, oil based paints and thinners; or other wastes as designated by the State Department of Environmental Protection. Demolition material cannot contain asbestos or other hazardous materials.

The Contractor shall obtain a disposal area for all other unsuitable or surplus materials at no cost to the Town.

08.00 DUST CONTROL

08.01 During the progress of the work, the Contractor shall conduct his operations and maintain the area of his activities so as to minimize the creation and dispersion of dust. If the Engineer decides that it is necessary to use water or calcium chloride for more effective dust control, the Contractor shall furnish and spread the material, as directed, without additional compensation.

09.00 MAINTENANCE / GUARANTEE PERIOD

09.01 The Contractor shall be held responsible to the Town for maintenance for a minimum of one-year following completion of all work under this Contract with respect to defects, settlements, etc.

10.00 PROTECTION OF EXISTING UTILITIES

10.01 Prior to opening an excavation, effort shall be made to determine whether underground installations, (i.e., sewer, water, fuel, electric lines, etc.) will be encountered and, if so, where such underground installations are located. Before starting any excavation, the Contractor shall submit to the Engineer plans or details showing the proposed method the Contractor will use to support and protect all existing utilities during construction. The furnishing of such plans and details shall not serve to relieve the Contractor of any responsibility for the proper conduct of the work.

10.02 When the excavation approaches the estimated location of such an installation, the exact location shall be determined by careful probing or hand digging, and when it is uncovered, proper supports shall be provided for the existing installation. Utility

companies shall be contacted and advised of proposed work prior to the start of actual excavation.

- 10.03 There will be no extra payment for submitting plans or details for supporting and protecting all existing utilities during construction.

11.00 TIME FOR COMPLETION/NOTICE TO PROCEED

- 11.01 The work under this Contract shall commence on the date ordered by the Engineer in the Notice to Proceed. After the work has begun, it shall continue in an orderly fashion such that all contract work is completed within sixty (60) calendar days of the commencement date indicated in the Notice to Proceed.

Within five (5) business days after the date of the Notice of Award, the Contractor must provide the appropriate bond and insurance certificates to the Town Purchasing Agent and must be issued a Notice to Proceed and Purchase Order for the Project prior to initiating any work.

- 11.02 When the Contract time is stated on a calendar-day basis, that time shall be the number of consecutive calendar days contained in the Contract period, excluding the time period from each December 1 through the following March 31 (the "winter shutdown period"). The time will be computed as herein provided on a consecutive-day basis, including all Saturdays, Sundays, holidays, and non-work days from April 1 through November 30 of each included year. Time will not be charged for days in the winter shutdown period. If the Engineer so approves, the Contractor may work on certain tasks of the Project during the winter shutdown period with no charge being made against the Contract time. **If work during winter shut down is approved by the Town, approval may be granted with the condition that work under the items Trafficperson (Municipal Police Officer) or Trafficperson (Uniformed Flagger) will not be measured for payment, at the discretion of the Town.**

- 11.03 The Town of Glastonbury intends to begin construction immediately on this project. Bidders should include costs in their bid response as required to comply with the Form 817 and the Project bid documents for concrete work during cold weather.

12.00 LIQUIDATED DAMAGES

- 12.01 As actual damages for any delay in completion of the work that the Contractor is required to perform under this Contract are impossible to determine, the Contractor and the Sureties shall be liable for and shall pay to the Town the sum of \$500.00 as fixed, agreed and liquidated damages for each calendar day of delay from the above-stipulated completion, or completion as modified in writing by both parties, until such work is satisfactorily completed and accepted.

13.00 SCHEDULE OF DRAWINGS

- 13.01 The Contractor is hereby alerted that the plan set entitled "Plans Depicting Sidewalk Improvements at Various Locations Town of Glastonbury PW-1903" Revision 1. 2-20-2020 Issued for Construction" including 9 sheets is to be considered part of these specifications.

14.00 CHANGES IN THE WORK

14.01 The Town reserves the right to perform portions of the work in connection with these plans and specifications. The reduction in the work to be performed by the Contractor shall be made without invalidating the Contract. Whenever work is done by the Town contiguous to other work covered by this Contract, the Contractor shall provide reasonable opportunity for the execution of the work and shall properly coordinate his work with that of the Town.

15.00 LAYOUT OF WORK

15.01 The Town shall provide stake-out of the work in accordance with the plans or as directed by the Engineer. The Contractor shall protect all stakes from damage or destruction and shall be responsible to assure that the grade stakes have not been altered prior to actual construction. The Town shall replace grade stakes that have been removed, at no cost to the Contractor, if their removal was caused by reasons beyond reasonable care and protection by the Contractor. If it is determined by the Engineer that the Contractor did not provide reasonable protection, the cost of restaking will be deducted from any amounts due the Contractor in the performance of the work.

16.00 REMOVAL AND STORAGE OF MATERIALS AND STRUCTURES FOUND ON THE WORK

16.01 All salvable materials, including topsoil, gravel, fill materials, etc. and structures, including drainage pipes, catch basins and manhole frames and covers, guide railing, etc. that are not to remain in place or that are not designated for use in the work, shall be carefully removed by the Contractor and stored at such places as directed by the Engineer. All salvable materials removed and stored shall remain the property of the Town. The Engineer shall determine the materials or structures to be salvaged.

17.00 PROSECUTION AND PROGRESS

17.01 **ADVANCE NOTICE:** The Contractor shall give the Engineer a seven-day advance written notice of construction activities that will alter traffic patterns that result in lane shifts, detours, temporary closures of lane(s), permanent closure of lane(s), or lane reductions. This advance notification will allow the Town to publish news releases and/or provide public radio announcements to inform the public of revised traffic patterns or possible traffic delays. Failure of the Contractor to provide such timely notice shall be considered a breach of Contract and will subject the Contractor to stop work orders until such time as the seven-day notice has been satisfied.

17.02 **ALLOWABLE HOURS OF OPERATION (WORK PERIOD):**

All other contract work on a Town road that maintains bi-directional traffic on 11 foot wide travel lanes shall be performed Monday through Friday during the hours of 7:00 AM and 4:30 PM.

Work on weekends or during time periods other than those described above will not be permitted. No work will be allowed on designated Town Holidays unless permission is granted by the Town.

**SIDEWALK IMPROVEMENTS AT VARIOUS LOCATIONS
SPECIAL CONDITIONS**

BID #GL-2020-17

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

The Contractor shall ensure that suitable temporary access is provided to all residential and commercial driveways at all times as described in the Special Provision for Maintenance and Protection of Traffic.

18.00 EXTRA WORK AND RETAINAGE

18.01 Extra and cost plus work shall be governed by Article 1.04.05 and Article 1.09.04 of the Form 817.

18.02 Retainage shall be governed by Article 1.09.06 of the Form 817, except that the retainage amount shall be equal to five (5) percent.

19.00 SUBMITTALS AND MATERIALS TESTING

19.01 Required submittals are outlined in Section 1.06 Control of Materials of the Special Provisions. The Contractor shall provide source and supply information, sieve analysis, and material samples for gravel subbase, process stone base, modified riprap, and other granular materials to the Town for review and approval. The Town shall retain a lab for testing of these materials as required and shall perform in place compaction testing at no expense to the Contractor.

19.02 Shop drawings / catalog cuts shall be provided by the Contractor for all pre-cast concrete structures, pipes and fittings, erosion control products, seed mixes, and other items to be supplied for review and approval by the Engineer as described in the specifications and the Form 817.

19.03 Certified Materials Test Reports and Materials Certificates shall be provided for all products and materials to be provided under this contract as described in these specifications and the Form 817.

**SIDEWALK IMPROVEMENTS AT VARIOUS LOCATIONS
BID PROPOSAL**

BID #GL-2020-17

TOWN OF GLASTONBURY			
BID / PROPOSAL		GL #	2020-17
DATE ADVERTISED	02/25/2020	DATE / TIME DUE	03/11/2020 at 11:00 A.M.
NAME OF PROJECT	Sidewalk Improvements at Various Locations		

It is the responsibility of the Bidder to clearly mark the outside of the bid envelope with the Bid Number, Date and Time of Bid Opening, and it is also **THE RESPONSIBILITY OF THE BIDDER TO CHECK THE TOWN'S WEBSITE BEFORE SUBMITTING BID FOR ADDENDA POSTED PRIOR TO BID OPENING.**

The Bidder acknowledges receipt of the following Addenda:

Addendum #1 _____ (Initial & Date)

Addendum #2 _____ (Initial & Date)

Addendum #3 _____ (Initial & Date)

OTHER ITEMS REQUIRED WITH SUBMISSION OF BID PROPOSAL:

The following bid checklist describes items required for inclusion with the above-referenced bid proposal package. It is provided for the convenience of the bidders and, therefore, should not be assumed to be a complete list.

- _____ 1. Included Bid Bond as per Section 10 of the Information for Bidders.
- _____ 2. Included Disclosure of Past and Pending Mediation, Arbitration, and Litigation cases against the Bidder or its Principals as per Section 17 of the Information for Bidders.
- _____ 3. Included Qualifications Statement as per Section 21 of the Information for Bidders.
- _____ 4. Provided certification for Compliance with Town Ordinance Prohibiting Natural Gas Waste & Oil Waste From Natural Gas Extraction Activities or Oil Extraction Activities as per Section 22 of the Information for Bidders
- _____ 5. Checked Town web site for Addenda and acknowledged Addenda on page BP-1.
- _____ 6. Acknowledged Code of Ethics on page BP-3.
- _____ 7. Clearly marked envelope with Bid Number, Date, Time of opening, Bidder's Company Name and address.

BIDDER NAME: _____

**SIDEWALK IMPROVEMENTS AT VARIOUS LOCATIONS
 BID PROPOSAL**

BID #GL-2020-17

BIDDER NAME: _____

LINE NO.	ITEM NO.	ITEM DESCRIPTION	UNIT	QTY	UNIT PRICE	EXT
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1	0201001	A CLEARING AND GRUBBING	L.S.	1		
2	0219003	SEDIMENTATION CONTROL FILTER FABRIC FENCE SYSTEM	LF	310		
4	0219011	A SEDIMENT CONTROL SYSTEM AT CATCH BASIN	EA.	6		
5	0404100	A BITUMINOUS CONCRETE PATCHING-FUL DEPTH	S.Y.	21		
6	0815001	BITUMINOUS CONCRETE LIP CURBING	L.F.	30		
7	0913002	A 6 FOOT TALL PVC PRIVACY FENCE	L.F.	104		
8	0915001	A TREE PROTECTION TRENCH	L.F.	130		
9	0921001	A CONCRETE SIDEWALK	S.F.	2,650		
10	0921005	A CONCRETE SIDEWALK RAMP	S.F.	220		
11	0922501	A BITUMINOUS CONCRETE DRIVEWAY	S.Y.	20		
12	0944000	A FURNISH AND PLACING TOPSOIL	S.Y.	700		
13	0950005	A TURF ESTABLISHMENT	S.Y.	700		
14	0970006	A TRAFFICPERSON (MUNICIPAL POLICE OFFICER)	EST.	1	\$9,600.00	\$9,600.00
15	0971001	A MAINTENANCE AND PROTECTION OF TRAFFIC	L.S.	1		
16	0975002	MOBILIZATION	L.S.	1		
17	0981100	42" TRAFFIC CONE	EA.	25		
18	1220013	CONSTRUCTION SIGNS BRIGHT FLUORESCENT SHEETING	SF	60		
19	1403501	A RESET MANHOLE (SANITARY SEWER)	EA	1		

**SIDEWALK IMPROVEMENTS AT VARIOUS LOCATIONS
BID PROPOSAL**

BID #GL-2020-17

BIDDER NAME: _____

TOTAL BASE BID AMOUNT: \$ _____
(Numeric)

WRITTEN TOTAL BASE BID AMOUNT: _____

NON-COLLUSION AFFIDAVIT:

By submission of this bid, the Bidder certifies, and in the case of a joint bid each party thereto certifies as to their own organization that this bid has been arrived at independently without consultation, communication, or agreement as to any matter relating to this bid with any other Bidder or with any competitor.

CODE OF ETHICS:

I/We have reviewed a copy of the Town of Glastonbury's Code of Ethics and agree to submit a Consultant Acknowledgement Form if I/We are selected. Yes _____ No _____*

*Bidder is advised that effective August 1, 2003, the Town of Glastonbury cannot consider any bid or proposal where the Bidder has not agreed to the above statement.

Respectfully submitted:

Type or Print Name of Individual

Doing Business as (Trade Name)

Signature of Individual

Street Address

Title

City, State, Zip Code

Date

Telephone Number/Fax Number

E-Mail Address

SS# or TIN#

(Seal – If bid is by a Corporation)

Attest

**SIDEWALK IMPROVEMENTS AT VARIOUS LOCATIONS
SPECIAL PROVISIONS**

BID #GL-2020-17

SPECIAL PROVISIONS

**SPECIAL PROVISIONS
TABLE OF CONTENTS**

SECTION	DESCRIPTION	PAGE
SECTION 1.05	CONTROL OF WORK.....	2
SECTION 1.06	CONTROL OF MATERIALS.....	3
SECTION 1.07	LEGAL RELATIONS AND RESPONSIBILITIES.....	4
SECTION 1.08	PROSECUTION AND PROGRESS.....	7
ITEM # 0201001A	CLEARING AND GRUBBING.....	9
ITEM # 0205001A	EARTH TRENCH EXCAVATION AND BACKFILL.....	11
ITEM # 0219011A	SEDIMENT CONTROL SYSTEM AT CATCH BASIN.....	21
ITEM # 0404100A	BITUMINOUS CONCRETE PATCHING-FULL DEPTH.....	23
ITEM # 0913002A	6 FOOT TALL PVC PRIVACY FENCE.....	25
ITEM # 0915001A	TREE PROTECTION TRENCH.....	27
ITEM # 0921001A	CONCRETE SIDEWALK.....	28
ITEM # 0921005A	CONCRETE SIDEWALK RAMP.....	28
ITEM # 0922501A	BITUMINOUS CONCRETE DRIVEWAY.....	32
ITEM # 0944000A	FURNISHING AND PLACING TOPSOIL.....	34
ITEM # 0950005A	TURF ESTABLISHMENT.....	35
ITEM # 0970006A	TRAFFICPERSON (MUNICIPAL POLICE OFFICER).....	37
ITEM # 0971001A	MAINTENANCE AND PROTECTION OF TRAFFIC.....	38
ITEM # 1403501A	RESET MANHOLE (SANITARY SEWER).....	57

SECTION 1.05 CONTROL OF WORK

Article 1.05.02 - Plans, Working Drawings and Shop Drawings is supplemented as follows:

Subarticle 1.05.02 - (2) is supplemented by the following:

The Contractor shall prepare and submit two (2) sets of catalog cuts and/or shop drawings for all items listed in Section 1.06 to the Town of Glastonbury Engineering Division for approval before ordering or fabricating any materials required for this project.

Please forward to:

Stephen Braun, P.E.
Assistant Town Engineer
2155 Main Street, P.O. Box 6523
Glastonbury, CT 06033-6523
Stephen.braun@glastonbury-ct.gov

Following approval of the shop drawings, the Engineer will provide two hard copies or one PDF document to the contractor. Engineer will retain one hard copy of the approved shop drawings

SECTION 1.06 CONTROL OF MATERIALS

Article 1.06.01 - Source of Supply and Quality:

Add the following:

For the following items the contractor shall submit a complete description of the item, working drawings, catalog cuts and other descriptive literature which completely illustrates such items presented for formal approval. Such approval shall not change the requirements for a certified test report and materials certificate as may be called for. All shop drawings shall be submitted at one time, unless otherwise approved by the engineer.

1. Concrete Mix Designs for Sidewalks, Ramps
2. Processed Stone Base
3. Expansion Joint Material
4. Smooth Metal Dowel
5. Speed Dowel Sleeves
7. Detectable Warning Tile-Replaceable
8. Bituminous Concrete Pavement for patching
9. Sediment Control Sack
10. Bituminous Concrete Lip Curbing
11. Subbase Material
12. Topsoil
13. Seed Mixture
14. Concrete Sealer with water/salt guard
15. PVC Vinyl Fencing

SECTION 1.07 LEGAL RELATIONS AND RESPONSIBILITIES

Article 1.07.07 – Safety and Public Convenience

Add the following:

The Contractor shall provide the necessary access for emergency vehicles through the work zones to abutting properties at all times.

Sweeping and cleaning of surfaces beyond the limits of construction required for dust control or to clean up material caused by spillage or vehicular tracking during various phases of the work shall be considered as incidental to the work being performed under the Contract and there will be no additional compensation.

The Contractor shall notify all public safety agencies at least 48 hours prior to beginning any construction operation which will provide less than a 12 foot travel lane along any project roadway.

Article 1.07.13 - Contractor's Responsibility for Adjacent Property, Facilities and Services

Supplemented as follows:

The Contractor, in constructing or installing facilities alongside or near sewers, drains, water or gas pipes, electric or telephone conduits, poles, sidewalks, walls, vaults, or other structures shall sustain them securely in place. The Contractor shall coordinate with the officers and agents of the various utility companies and municipal departments to assure that the services of these structures are maintained. The Contractor shall also be responsible for the repair or replacement, at no additional cost to the Town, of any damage to such structures caused by construction operations. The Contractor is responsible to leave them in the same condition as they existed prior to commencement of the work. In case of damage to utilities, the Contractor shall promptly notify the utility owner and shall, if requested by the Engineer, furnish labor and equipment to work temporarily under the utility owner's direction. Pipes or other structures damaged by the operation of the Contractor may be repaired by the utility owner which suffers the loss. The cost of such repairs shall be borne by the Contractor, without compensation from the Town.

If during construction there is an existing utility and/or structure found to be in conflict with the proposed work under this Contract, the Contractor shall protect and maintain the services to the utilities and structures and shall notify the Engineer of the conflict. The Engineer will, as soon as possible, identify the utilities to be relocated or other such activities deemed suitable for resolution.

If live service connections are to be interrupted by excavations of any kind, the Contractor shall not break the service until new services are provided. Abandoned services shall be plugged off or otherwise made secure.

Full compensation for furnishing all labor, materials, tools, equipment, and incidentals for doing all of the work involved in protecting or repairing property as specified in this Section shall be included in the price paid for the various Contract items of work, and no additional compensation will be allowed.

Prior to opening an excavation, effort shall be made to determine whether underground installations, (i.e. sewer, water, fuel, electric lines, etc.) will be encountered and, if so, where such underground installations are located. When the excavation approaches the estimated location of such an installation, the exact location shall be determined by careful probing or hand digging, and when it's uncovered, proper supports shall be provided for the existing installation. Utility companies shall be contacted and advised of proposed work prior to the start of actual excavation.

**SIDEWALK INSTALLATION-VARIOUS LOCATIONS
SPECIAL PROVISIONS**

BID #GL-2020-17

UTILITY COMPANIES WITHIN THE PROJECT AREA

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:

Mr. Augusto Grazuna
District 1 Electrical Supervisor
Department of Transportation
Hartford, Connecticut
(860) 566-3156/3157

Connecticut Natural Gas Corporation, Engineering
Department
Mr. Vasant C. Patel,
Manager - Utility Coordination
76 Meadow Street, 1st Floor
East Hartford, CT 06108
(860) 727-3114
vpatel@ctgcorp.com

Frontier Communications
Ms. Jan Possidente - Russo,
Manager - Conduit Construction Group
1441 North Colony Road
Meriden, CT 06450-4101
Phone: 203-383-6645
Mobile: 203-540-8920
jan.possidente-russo@ftr.com

Eversource Energy - Electric
Distribution
Mr. Barry C Lashley, Msc.
Supervisor - Construction Engineering
135 New Rd, MADISON AWC
Madison, CT 06443
Phone: (203) 245-5208
barry.lashley@eversource.com

Metropolitan District Commission-(MDC)
Water Distribution
Mr. Richard Norris
Utility Coordinator/Project Manager
555 Main Street
P.O. Box 800
Hartford, CT. 06142
Phone: (860) 278-7850 Extension 3450
rnorris@themdc.com

Spectra Energy Operating Company, LLC (formerly:
Algonquin Gas
Transmission Company)
Mr. Bradley E. Franzese,
Area Manager
252 Shunpike Road
Cromwell, CT 06416
Phone: (860) 635-0800 EXT: FAX: (860) 635-2632
befranzese@spectraenergy.com

CoxCom, Inc.
Mr. Thomas Derway,
Capital/Utility Coordinator
801 Parker Street
Manchester, CT 06045
Phone: (860) 432-5040 FAX: (860) 512-5115
thomas.derway@cox.com

Lighttower Fiber Networks
Mr. Eric Clark,
Manager Fiber Construction
1781 Highland Avenue
Cheshire, CT 06410
Phone: (203) 649-3904
Mobile: 860-863-8311
eclark@lighttower.com

Connecticut Natural Gas Corporation
Inspections
John Bonville
76 Meadow Street, 1st Floor
East Hartford, CT 06108
Phone: (860) 982-3815

**SIDEWALK INSTALLATION-VARIOUS LOCATIONS
SPECIAL PROVISIONS**

BID #GL-2020-17

TOWN OF GLASTONBURY

Engineering Division
2155 Main Street
Glastonbury, CT. 06033

Daniel A. Pennington, P.E.
Director of Physical Services/Town Engineer
Phone: (860) 652-7736
Email: Daniel.pennington@glastonbury-ct.gov

Engineering Division
2155 Main Street
Glastonbury, CT. 06033

Stephen M. Braun, P.E.
Assistant Town Engineer/Project Manager
Phone: (860) 652-7743
Email: Stephen.braun@glastonbury-ct.gov

Glastonbury Police Department
2108 Main Street
Glastonbury, CT. 06033

Watch Commander
Phone: (860) 633-8301

Glastonbury Tree Warden
2143 Main Street
Glastonbury, CT. 06033

Gregory Foran
Director of Parks and Recreation/Tree Warden
Phone: (860) 652-7686
Email: Gregory.foran@glastonbury-ct.gov

SECTION 1.08 PROSECUTION AND PROGRESS

Article 1.08.03 – Prosecution of Work

Add the following:

GENERAL: Before starting any work under this Contract, the Contractor shall prepare, and submit to the Engineer for approval, a minimum of 30 days in advance, a plan illustrating the Typical Traffic Management Plan for the roadway during construction. The Contractor will also be required to submit, and obtain approval from the Engineer, specific plans detailing the proposed Staging/Maintenance and Protection of Traffic Plans for the roadway in this Contract.

The Contractor must obtain approval of the Typical Traffic Management Plans and Staging/Maintenance and Protection of Traffic Plans from the Engineer prior to commencing work on the roadway.

All appropriate Maintenance and Protection of Traffic devices are to be installed prior to commencing construction operations.

Particular care shall be taken to establish and maintain methods and procedures that will not create unnecessary or unusual hazards to public safety. Traffic control devices required only during working hour operations shall be removed at the end of each working day.

Signs having messages that are irrelevant to normal traffic conditions shall be removed or properly covered at the end of each work period. Signs shall be kept clean at all times and legends shall be distinctive and unmarred.

The Contractor shall notify all public safety agencies at least 48 hours prior to beginning any construction operation which will provide less than a 12 foot travel lane along any project roadway.

ADVANCE NOTICE: The Contractor shall give the Engineer a seven-day advance written notice of construction activities that will alter traffic patterns that result in lane shifts, detours, temporary closures of lane(s), permanent closure of lane(s), or lane reductions. This advance notification will allow the Town to publish news releases and/or provide public radio announcements to inform the public of revised traffic patterns or possible traffic delays. Failure of the Contractor to provide such timely notice shall be considered a breach of Contract and will subject the Contractor to stop work orders until such time as the seven-day notice has been satisfied.

ALLOWABLE HOURS OF OPERATION (WORK PERIOD):

Allowable hours of operation are Monday through Friday during normal business hours. Work on weekends or during time periods other than those described above will not be permitted. No work will be allowed on designated Town Holidays unless permission is granted by the Town.

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:

On the following State observed Legal Holidays:

New Year's Day
Good Friday, Easter*
Memorial Day
Independence Day
Labor Day

**SIDEWALK INSTALLATION-VARIOUS LOCATIONS
SPECIAL PROVISIONS**

BID #GL-2020-17

Thanksgiving Day**
Christmas Day

The following restrictions also apply:

On the day before and the day after any of the above Legal Holidays.

On the Friday, Saturday, and Sunday immediately preceding any of the above Holidays celebrated on a Monday.

On the Saturday, Sunday, and Monday immediately following any of the above Holidays celebrated on a Friday.

* From 6:00 a.m. the Thursday before the Holiday to 8:00 p.m. the Monday after the Holiday.

** From 6:00 a.m. the Wednesday before the Holiday to 8:00 p.m. the Monday after the Holiday.

ITEM # 0201001A CLEARING AND GRUBBING

Description:

The Contractor shall furnish all labor, materials, tools, and equipment necessary and shall do all work to prepare the site as indicated on the drawings and as herein specified.

Construction Methods:

Tree Removal: Removal of trees as indicated on the plans shall be performed by workman skilled in the area of tree removal under the supervision of a Connecticut Licensed Arborist. The Contractor shall mark all trees, shrubs, and plants to be removed in accordance with the plans and these specifications. The Engineer shall have 7 days to field review the markings and make any adjustments prior to the start of the clearing operation.

Trees and shrubs within the right-of-way or within any property owned by the Town of Glastonbury that are designated for removal must be posted as such by the Glastonbury Tree Warden (Mr. Greg Foran of the Parks and Recreation Department, 652-7686) for a period of 10 days prior to removal. **No trees or shrubs within the Town of Glastonbury right-of-way shall be cut or removed until such posting has been completed and subsequent approval given by the Tree Warden.**

In general, no trees, etc. in public streets and highways are to be cut or damaged in any way except as noted on the plans or described herein. Trees, bushes, and growing crops on other lands may be cut, removed, or trimmed only to the extent provided in the terms of the rights-of-way or access rights possessed by the Town, and also only within the limits and in the manner, if any, indicated by the Engineer or by the drawings or Special Conditions.

Tree Trimming: Trimming of trees with supervision by a Connecticut Licensed Arborist is included under this item as required for clearance of construction equipment and pedestrians below the tree canopy. When the canopy of a tree must be elevated for clearance above the proposed improvements, trimming shall be done around the entire circumference of the tree.

Tree Protection and Care of Property: The Contractor shall install high visibility construction fence at the drip line of the tree canopy as directed by the Engineer to protect existing trees that are not to be cut from damage during construction. The Engineer, at his sole discretion, may also direct the Contractor to enclose the trunks of trees adjacent to his work that are not to be cut with substantial wooden boxes of such height as may be necessary to protect them from injury from piled material, from equipment, from his operations, or otherwise due to his work. Excavating machinery and cranes shall be of suitable type and be operated with care to prevent injury to trees not to be cut, and particularly to overhanging branches and limbs.

Branches, limbs, and roots shall not be cut except by permission of the Engineer. All cutting shall be smoothly and neatly done without splitting or crushing. In case of cutting or unavoidable injury to branches, limbs, and trunks of trees, the cut or injured portions shall be neatly trimmed and covered with an application of grafting wax or tree-healing paint, as directed.

Cultivated hedges, shrubs, and plant that might be injured by the Contractor's operations shall be protected by suitable means or shall be dug up and temporarily replanted and maintained. After the construction operations have been substantially completed, they shall be replanted in their original positions and cared for until growth is re-established. If cultivated hedges, shrubs, and plants are injured to such a degree as to affect their growth or diminish their beauty or usefulness, they shall be replaced by items of kind and quality at least equal to the kind and quality existing at the start of the work.

On paved surfaces, the Contractor shall not use or operate tractors, bulldozers, or other power-operated equipment, the treads of wheels that are so shaped as to cut or otherwise injure such surfaces.

**SIDEWALK INSTALLATION-VARIOUS LOCATIONS
SPECIAL PROVISIONS**

BID #GL-2020-17

Clearing: From areas to be cleared, the Contractor shall cut or otherwise remove all trees, saplings, brush, vines, and other vegetable matter such as snags, sawdust, bark, etc., and refuse. The area to be cleared shall be confined to the width shown on the plans or as required for proper execution of the work. Vines, brush, and similar undergrowth shall be cut as close to the ground as practicable. Trees may be cut leaving a longer stump to facilitate their removal by power-operated equipment. No trees shall be cut or trimmed unless they are so indicated on the drawings.

Clearing shall also include removal and disposal of all items shown on the plans to be removed or required to be removed for proper execution of the work, and as directed by the Engineer, including, but not limited to, removal and disposal of existing concrete sidewalk, concrete steps, retaining walls, drainage structures, fences, and any and all other structures or materials not specifically listed in the Bid Proposal but required to be removed to accomplish the work.

Signs and Mailboxes: All road signs, mail boxes, etc., shall be removed and reset as indicated on the drawings or as directed by the Engineer.

Existing Landscaping Boulders: Work associated with this consists of the removal and relocation of existing landscaping boulders to facilitate grading required for the installation of a concrete sidewalk. Once grading is finalized, the existing boulders are to be reinstalled/relocated in the locations depicted on the approved plans and oriented in the same exposed face as existing.

Grubbing: Grubbing shall consist of the complete removal of all tree stumps and roots larger than two inches in diameter to a minimum depth of 12-inches below the subgrade surface. All excavations made below the finished surface by the removal of trees, stumps, etc. shall be filled with suitable material and thoroughly compacted in such a manner that its surface will conform to the surrounding surface.

Stump grinding shall be used for stump removal where the potential for damage to adjacent improvements or underground utilities exists due to the excavation of stumps, or as directed by the Engineer. The requirements for grubbing noted above shall also apply to stump grinding operations.

Disposal: All materials removed during trimming, tree removal, and clearing and grubbing operations shall be disposed of by the Contractor in a manner satisfactory to the Engineer.

Method of Measurement:

Clearing and Grubbing will not be measured for payment but the cost of this work shall be included in the lump sum price for Clearing and Grubbing.

Basis of Payment:

Except as provided otherwise in the Bid Proposal or Special Conditions, this work shall be paid for at the contract lump sum price for "Clearing and Grubbing" as listed in the Bid Proposal, which price shall include protection of existing trees and vegetation, installation of high visibility construction fence, tree removal and tree trimming under the supervision of a Connecticut Licensed Arborist, clearing and grubbing within the limits of the work, stump grinding, removal and disposal of trees, roots, stumps, brush, removal of concrete steps and other objects, leveling of areas to accommodate the work, removing and resetting traffic signs and mailboxes, and all labor, materials, tools, and equipment necessary thereto.

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>
0201001A	CLEARING AND GRUBBING	L.S.

ITEM # 0205001A

EARTH TRENCH EXCAVATION AND BACKFILL

Description:

The Contractor shall make excavations of normal depth in earth for trenches and structures; shall backfill such excavations to the extent necessary; shall furnish the necessary material and construct embankments and fills; and shall make miscellaneous earth excavations and do miscellaneous grading. All such work shall be done as indicated on the drawings and as herein specified.

The program of excavation, dewatering, sheeting and bracing shall be carried out in such manner as to eliminate all possibility of undermining or disturbing the foundations of existing structures or of work previously completed under this contract.

Excavation in general shall be in open trenches. Tunneling shall be done only to pass under obstructions such as pipes or duct or only as indicated on contract drawings, or in Special Provisions, or on written permission of the Engineer, and then only in accordance with those sections hereof which describe tunnel excavation, and subject to such further conditions as may have been described by drawings, Special Provisions, or as the Engineer may specify.

The Contractor shall make excavations in such manner and to such widths as will give suitable room for building the structures or laying and jointing the piping; shall furnish and place all sheeting, bracing, and supports; shall do all coffer damming, pumping and draining; and shall render the bottom of the excavations firm and dry and acceptable in all respects.

In general, and unless other material is indicated on the drawings or specified, material used for backfilling trenches and excavations around structures shall be suitable material which was removed in the course of making the construction excavations.

Construction Methods:

Trench Excavation: Where pipe is to be laid in gravel bedding or concrete cradle, the trench may be excavated by machinery to or to just below, the designated subgrade, provided that the material remaining at the bottom of the trench is no more than slightly disturbed.

Where pipe is to be laid directly on the trench bottom, the lower part of trenches in earth shall not be excavated to subgrade by machinery, but, just before the pipe is to be placed, the last of the material to be excavated shall be removed by means of hand tools to form a flat or shaped bottom, true to grade, so that the pipe will have a uniform and continuous bearing and support on firm and undisturbed material between joints except for limited areas where the use of pipe slings may have disturbed the bottom.

Depth of Trench: Trenches shall be excavated to such depths as will permit the pipe to be laid at the elevations, slopes or depths of cover indicated on the drawings, and at uniform slopes between indicated elevations.

Width of Trench: The methods and equipment used for excavation must be adapted to the conditions at the site and the dimensions of the required trench. The width of ground or street surfaces cut or disturbed shall, in general, be kept as small as practicable to accommodate the work and shall not be widened by scraping or loosening materials from the sides. Every effort shall be made to keep the sides of the trenches firm and undisturbed until backfilling has been completed and consolidated.

Width of pipe trenches shall be wide enough to provide sufficient space for shoring, for foundations, for drainage, for laying, jointing, inspecting, and backfilling of sides of pipe, or for building the required structures, and as near as feasible to the above described minimums, in order to reduce the load of backfill upon the top

**SIDEWALK INSTALLATION-VARIOUS LOCATIONS
SPECIAL PROVISIONS**

BID #GL-2020-17

of the sewer; to provide lateral support for the fill and haunching on the sides of the pipe, and to insure that the pipe will not be pushed out of line while placing backfill.

For surface restoration work related to trench excavation, the limits of payment by the Town varies with the diameter of the pipe as described in these specifications. Where the Contractor chooses not to use trench supports, the Contractor will still be paid for related surface restoration work as per the maximum trench widths or actual trench width, whichever is the least.

Excavation for Special Foundations: Where concrete, stone or underdrain is required or ordered, excavation shall be carried down to the depth and lines required for such foundation or underdrain. If required by contract drawings or Special Provisions as part of the structure and included in the price, no additional payment for this additional excavation, as excavation, will be made. If the foundation is paid by the cubic yard or other specific item of proposal, such price for foundation shall include excavation therefore. Excavation for underdrain is included in price for underdrain.

Where the plans, Proposal or Special Provisions indicate certain foundations, they will be constructed and paid for as indicated.

Where the soil in subgrade is found to be soft, loose or freshly-filled earth, or unstable or unsuitable as a base for the proposed sewer or structure, the Engineer may, in his discretion, order it excavated to such depth and width as he may deem proper and replaced with gravel, crushed stone, concrete, plank or similar materials as he may direct.

If the excavation for foundation is made wider or deeper than required or ordered, or if excavation for concrete on sides of pipe is made wider than required or ordered, then no additional payment for the additional quantities of excavation or for additional foundation or side filling materials will be made, if being assumed that the added space was excavated for the convenience of, or by error of, the contractor.

Length of Trench and Space Occupied: Trenches must be constructed with a minimum of inconvenience and danger to the public and all other parties. To that end, the length of trench opened at any time, from point where ground is being broken to completed backfill and temporary surfacing, and also the amount of space in streets or public and private lands occupied by trench soil banks, equipment and supplies, shall not exceed the space or spaces considered reasonably necessary and expedient by the Engineer. In determining the length of open trench, the space for equipment, materials, supplies, etc. needed, the Engineer will consider the nature of the street or land where work is being done, depth and width of trench, types and methods of construction and equipment being used, inconvenience to the public or to private parties, possible dangers, limits or rights-of-way and other proper matters.

The Contractor must keep streets and premises near the work free from unnecessary obstructions, debris, etc. The Engineer may, at any time order all equipment, materials, surplus from excavations, debris, etc., lying outside reasonable limits of space, promptly removed; and should the Contractor fail to remove such materials within three days after notice to remove same, the Engineer may cause any part or all of such materials to be removed by such persons as he may employ, at the Contractor's expense, and may deduct the costs thereof from payment which may be or may become due to the contractor under this Contract. In any cases when public safety urgently demands it, the Engineer may cause such materials to be removed without prior notice.

Trenches shall be excavated with approximately vertical sides between the elevation of the center of the pipe and an elevation one foot above the top of the pipe.

Dimensions of Trenches: Trenches shall be excavated to the lines indicated on contract drawings or as described for any particular structure by any contract document. In general, room shall be allowed for installing the pipe or other structure, for making and inspecting joints in pipe, for placing and compacting fill around and

on both sides of pipe, for draining and pumping as needed, for removal of unsuitable materials, and for any other purpose incidental to the fulfillment of the Contract and these specifications.

Care must be taken to excavate to correct line, grade and width at all points.

In general, sides of trenches must be not less than four inches from outside of barrel of all pipe eight inches or less in size, six inches from outside of barrel of pipe ten inches or larger in size, or as shown by contract drawings. Except as otherwise provided, excavation shall conform closely to the form and grade of the bottom of the pipe or foundation required. To accomplish this, the Engineer may require that no earth shall be excavated by machinery nearer than six inches to the finished subgrade, and the last six inches of excavation in earth shall be carefully removed by hand labor to the exact lines and grade required, immediately prior to laying pipe or underdrain or building bottom of structure.

Maximum trench width for various pipe sizes are described below. Where the Contractor chooses not to use trench supports the Contractor will still be paid for any restoration work specified elsewhere in the contract as per maximum trench widths described below.

MAXIMUM TRENCH WIDTHS FOR VARIOUS PIPE SIZES

Size Pipe Nominal Inside Diameter	Maximum Width of Trench
6"	2.5 Feet
8"	4.0 Feet
10"	4.0 Feet
12"	4.0 Feet
15"	4.0 Feet
18"	4.0 Feet
21"	4.3 Feet
24"	4.5 Feet
27"	4.8 Feet
30"	5.1 Feet
33"	5.4 Feet
36"	5.7 Feet
39"	5.9 Feet
42"	6.3 Feet

Extent of Open Excavation: The extent of excavation open at any one time will be controlled by the conditions, but shall always be confined to the limits prescribed by the Engineer. At no time shall the extend of the open excavation go beyond two structures.

Trench Excavation in Fill: If pipe is to be laid in embankments or other recently filled material, the material shall first be placed to the top of the fill or to a height of at least one foot above the top of the pipe, whichever is the lesser. Particular care shall be taken to ensure maximum consolidation of material under the pipe location. The pipe trench shall be excavated as though in undisturbed material.

Unauthorized Excavation: If the bottom of any excavation is taken out beyond the limits indicated or prescribed, the resulting void shall be backfilled at the Contractor's expense with ¾" crushed stone if the excavation was for a pipeline not having a concrete cradle or encasement, or with Class C concrete if the excavation was for a masonry structure.

Cutting of Pavement: When the trench lies within a paved area, the trench shall be cut with an approved tool. All cuts shall be made to straight lines and shall be parallel and/or perpendicular to the center line of the trench.

Bridging Trenches: The Contractor shall, at no cost, provide suitable and safe bridges and other crossings where required for the accommodation of travel, and to provide access to private property during construction, and shall remove said structures thereafter.

Obstacles: Some obstructions, obstacles, or difficulties in the path of the work anticipated, or in the performance of the work, may have been indicated by drawings, Special Provisions, or in other contract documents. The omission of any indication or mention of any obstruction, obstacle or difficulty which a reasonable and careful contractor, bidder, or estimator might have anticipated, or any question as to adequacy of such indication as given, shall not entitle the Contractor to any extra or additional compensation for any loss or expense occasioned directly or indirectly by such obstruction, etc., not to any extension of time or waiver of any requirement of the Contract and Specifications. The Contractor shall be understood to have entered into the Contract with full knowledge that in any work involving excavation, operation in public highways or adjacent to other developments, some unforeseen obstacle, difficulties, unforeseen soil or ground water conditions, etc., may be encountered, and that the Contractor has included in the bid and contract obligations the assumptions of the risks and cost to which such obstacles, etc. may subject the bid.

The Town will make arrangements for clearance or avoidance of permanent obstruction by pipes and structures of public utilities and of public bodies, except as otherwise indicated on drawings or contract documents, where such obstruction is found in the space to be occupied by the pipe or structure to be built under the Contract. The Town will not assume the cost of temporary removal, support, protection, etc. of pipes, poles, and other structures which do not occupy the space to be occupied by the pipe or structure to be built for the Town, where removal, support, protection, etc. of such pipes, poles or structures is desired for the convenience of, or to save expense to, or to accommodate the equipment of the Contractor.

Ends of Certain Pipes to be Sealed: If any pipe, drain, culvert, connection or similar conduit is encountered and cut off or cut through incidental to the construction of the work, and if the said drain, etc. is not to continue to function or be used, the open end or ends of such pipes shall be securely and tightly closed by an adequate cover or bulkhead as directed by the Engineer. Except as a specific price for such closings was fixed in the Proposal, the cost of such covers, bulkheads, and the setting of them shall have been included in the price of prices bid for various other portions of the work in the Proposal and no additional payment will be made therefore.

In removing existing pipes or other structures, the Contractor shall use care to avoid damage to materials, and the Engineer shall include for payment only those new materials which are necessary to replace those unavoidably damaged.

The structures to which the provisions of the preceding three paragraphs shall apply include pipes, wires, and other structures which (a) are not indicated on the drawings or otherwise provided for, (b) encroach upon or are encountered near the substantially parallel to the edge of the excavation, and (c) in the opinion of the Engineer will impede progress to such an extent that satisfactory construction cannot proceed until they have been changed in location, removed (to be later restored), or replaced.

When fences interfere with the Contractor's operations, the Contractor shall remove and (unless otherwise specified) later restore them to at least as good condition as that in which they were found immediately before the work was begun, all without additional compensation. The restoration of fences shall be done as promptly as possible and not left until the end of the construction period.

Excavation Near Existing Structures: Attention is directed to the fact that there are pipes, drains, and other utilities in certain locations. Some of these have been indicated on the drawings, but no attempt has been made to show all of the services, and the completeness or accuracy of the information given is not guaranteed.

As the excavation approaches pipes, conduits, or other underground structures, digging by machinery shall be discontinued and the excavation shall be done by means of hand tools, as directed. Such manual excavation, when incidental to normal excavation, shall be included in the work to be done under items involving normal excavation.

**SIDEWALK INSTALLATION-VARIOUS LOCATIONS
SPECIAL PROVISIONS**

BID #GL-2020-17

Where determination of the exact location of a pipe or other underground structure is necessary for doing the work properly, the Contractor may be required to excavate test pits to determine such locations. When such test pits may be properly considered as incidental to other excavation, the Contractor shall receive no additional compensation, the work being understood to be included as a part of the excavation. When the Engineer orders test pits beyond the limits of excavation considered as part of the work, such test pits shall be paid for as specified under the special provision for "TEST PITS".

Protection of Existing Structures: All existing pipes, poles, wires, fences, curbing, property-line markers, and other structures which the Engineer decides must be preserved in place without being temporarily or permanently relocated shall be carefully supported and protected from injury by the Contractor. Should such items be injured, they shall be restored by the Contractor, without compensation therefore, to at least as good condition as that in which they were found immediately before the work was begun.

Relocation and Replacement of Existing Structures: Whenever the Contractor encounters certain existing structures as described below and is so ordered in writing, the Contractor shall do the whole or such portions of the work as he may be directed, to change the location of, remove and later restore, replace such structures, or to assist the owner thereof in so doing. For all such work, the Contractor shall be paid under such items of work as may be applicable, otherwise as Extra Work.

Backfilling and Consolidation: In general, and unless other material is indicated on the drawings or specified, material used for backfilling trenches and excavations around structures shall be suitable material which was removed in the course of making the construction excavations.

Frozen materials shall not be placed in the backfill nor shall backfill be placed upon frozen material. Previously frozen material shall be removed, or shall be otherwise treated as required before new backfill is placed.

Backfilling Around Structures: The Contractor shall not place backfill against or on structures until they have attained sufficient strength to support the loads (including construction loads) to which they will be subjected without distortion, cracking, or other damage. As soon as practical after the structures are structurally adequate and other necessary work has been done, special leakage tests, if required, shall be made. Promptly after the completion of such tests, the backfilling shall be started and then shall proceed until its completion. The best of the excavated materials shall be used in backfilling within two feet of the structure. Unequal soil pressures shall be avoided by depositing the material evenly around the structure.

Backfilling Pipe Trenches: As soon as practicable after the pipes have been laid and the joints have acquired a suitable degree of hardness, if applicable, or the structures have been built and are structurally adequate to support the loads, including construction loads to which they will be subjected, the backfilling shall be started, and thereafter it shall proceed until its completion in accordance with pipe manufacturer recommendations.

With the exception mentioned below in this paragraph, trenches shall not be backfilled at pipe joints until after that section of the pipeline has successfully passed any specified tests required. Should the contractor wish to minimize the maintenance of lights and barricades and the obstruction of traffic, the contractor may, at his own risk, backfill the entire trench, omitting or including backfill at joints as soon as practicable after the joints have acquired a suitable degree of hardness, if applicable, and the related structures have acquired a suitable degree of strength. The contractor shall, however, be responsible for removing and later replacing such backfill at no cost should the contractor be ordered to do so in order to locate and repair or replace leaking or defective joints or pipe.

a. Materials: The nature of the materials will govern both their acceptability for backfill and the methods best suited for their placement and compaction in the backfill. The materials and methods shall both be subject to the approval and direction of the Engineer. No stone or rock fragment larger than 12 inches in greatest dimension shall be placed in the backfill nor shall large masses of backfill material be dropped into the trench in such a manner as to endanger the pipeline. If necessary, a timber grillage shall be used to break the fall

**SIDEWALK INSTALLATION-VARIOUS LOCATIONS
SPECIAL PROVISIONS**

BID #GL-2020-17

of material dropped from a height of more than five feet. Pieces of bituminous pavement shall be excluded from the backfill unless their use is expressly permitted, in which case they shall be broken up as directed.

b. Zone Around Pipe: The zone around the pipe shall be backfilled with the materials and to the limits indicated on the drawings. Selected earth, or screened gravel, if used, shall be thoroughly compacted by tamping.

c. Remainder of Trench: The remainder of the trench above the zone around the pipe shall be compacted by water jetting, puddling, or tamping as directed or approved in accordance with the nature of the material. Water jetting or puddling may be used wherever the material does not contain so much clay or loam as to delay or prevent satisfactory drying, as directed by the Engineer

d. Water Jetting: If the backfill of more than 10 foot depth is to be compacted by water jetting, the material shall be placed in uniform layers not exceeding 4 feet in depth. Before the succeeding layer is placed, each layer shall be thoroughly saturated its full depth and at frequent intervals across and along the trench until all slumping ceases. To accomplish this, the contractor shall furnish one or more jet pipes, each of sufficient length to reach to the specified depth and of sufficient diameter (not less than 1 inch) to supply an adequate flow of water to compact the material. The jet pipe shall be equipped with a quick acting valve and be supplied through a fire hose from the hydrant or a pump having adequate pressure and capacity. (Refer to Section on Puddling, also.)

e. Puddling: If the backfill is in blasted trenches, then puddling as described below is required in order to quickly consolidate that fill and to minimize the subsequent settlement of the backfill. For the removal of puddling water from the trench, the following methods and devices, or equivalent methods and devices, shall be used:

On the upstream side of each manhole, a 2 inch galvanized iron pipe or approved substitute with screwed cap shall be set through manhole walls just above the water table, or as directed, and one or more lengths of perforated tile or "poroswall" drainage pipe, or equal, laid beyond said pipe with perforated cap in end, and surrounded with 3/4-inch crushed stone or equivalent gravel. This is intended to drain the puddling water out of the backfilled trench gradually enough to avoid carrying soil into the sewer, but at a faster drainage rate than would exist if the water had to dissipate itself into surrounding soils. After puddling water has been sufficiently drained out, each of these drain pipes shall be made watertight with a screw cap placed from inside the manhole. All the above shall be included in the price bid per manhole.

For the consolidation of the backfill by puddling, the Contractor should provide and arrange to use sufficient hose and other equipment. This shall include the following:

Jet pipe, or probe pipe, 6 feet long, of 1 inch pipe, preferably with a 1 inch gate valve, T handle and 1 inch hose nipple at top.

One piece of 1 inch hose not more than 15 feet long (to minimize loss of pressure and volume) with fittings to attach jet pipe to 2-½ inch hose.

2-½ inch fire hose of sufficient length to reach from fire hydrants to all parts of the job where puddling is to be performed.

NOTE: The Contractor shall obtain equipment from wherever obtainable. Part or all of the above items may be available on a rental basis from the Metropolitan District Commission at its Hartford (South Meadows) Sewage Treatment Plant.

Also, the Contractor shall arrange with the Metropolitan District Water Bureau to temporarily install a 2-inch water meter with 2-½ inch hose connection on hydrants when, where, and as needs them. Due to the danger of freezing, meters will not be installed on fire hydrants when the temperature is below 12 degrees F.

**SIDEWALK INSTALLATION-VARIOUS LOCATIONS
SPECIAL PROVISIONS**

BID #GL-2020-17

The Contractor must be prepared to cover and protect hydrant meters by providing heat, if necessary, to prevent freezing and must not block or otherwise impede access to the hydrant in case of need for fire. For these installations, a deposit must be made in advance with the Water Bureau. The cost of installing the meter and connections, of removing same, and of water used shall be paid promptly by the Contractor to the Water Bureau in accordance with its requirements. Note that no person other than as authorized by the Water Bureau should operate, at any time, any valve which is part of any fire hydrant. With the meter, the Water Bureau will install a temporary auxiliary valve can be used by the Contractor during the progress of the work. Applicants for hydrant meters must sign a statement to the Water Bureau that they will pay for any damage to the meter or hydrant, including damage by freezing. Hydrants shall be kept free of obstructions at all times so as to be readily available for use by the applicable Fire Department.

Puddling will be done by means of a jet pipe or probe pipe inserted to a depth of from 2 feet to 4 feet into the backfill and sufficient water forced through the jet pipe into the backfill to wash material into all voids and to cause the fill to compact and settle. Avoid swelling backfill material by an excess of water. Spacing and depth of jet pipe insertions, quantity of water to be injected into fill at each point, and other details will be determined by the Engineer as the work progresses. Minor changes in this process may be ordered and will be made as conditions and results observed on the job may indicate to be advantageous. The intention is to secure compaction and settlement of the full width, length and depth of trench backfills as quickly and as completely as possible, thus to minimize road maintenance and annoyance to the public by subsequent trench settlements.

Puddle Time: Normally, it is expected that if puddling is ordered, the Contractor will carry out the puddling operation immediately after all or large portions of the length of the job have been backfilled to the top of the trench. The Contractor shall not puddle close enough to pipe laying work to permit puddling water to interfere with foundations, pipe laying and bedding and haunching, pacing and tamping, or to wet, newly formed joints. While doing this work, the Contractor should excavate the top 6 to 18 inches of trench backfill in order to confine water within the trench backfill and keep water out of the road base and off the road surface. The Contractor should expect the surface of the remaining backfill to settle and should be prepared to immediately fill the space left at the top of the trench with approved road base material and keep the road passable. In this connection, and as applied to this part of the work, re: Length of Trench Left Open, should be interpreted to mean as long a length as the Contractor can in one day puddle, place road base and keep road and driveways open for traffic, as required, bearing in mind that the settlement due to puddling may travel along the trench somewhat ahead of the point where he is jetting.

No puddling will be performed when weather conditions make it inadvisable.

Whether or not the Engineer orders trenches consolidated by puddling, the Contractor shall be, and remain, fully responsible for proper placing, consolidation, and maintenance of the backfill and roadway as provided elsewhere in the standard Contract and Specifications and including the additional risks, delays, and costs involved in puddling work.

f. Tamping: If the material does not require jetting or puddling, compaction shall be accomplished by tamping or, under appropriate circumstances, rolling. The material shall be deposited and spread in uniform, parallel layers not exceeding 12 inches thick before compaction. Before the next layer is placed, each layer shall be tamped as required so as to obtain a thoroughly compacted mass. If necessary, the Contractor shall furnish and use an adequate number of power driven tampers, each weighing at least 20 lb for this purpose. Care shall be taken that the material close to the bank, as well as in all other portions of the trench, is thoroughly compacted. When the trench width and the depth to which backfill has been placed are sufficient to make it feasible, and it can be done effectively and without damage to the pipe, backfill may, on approval, be compacted by the use of suitable rollers, tractors, or similar powered equipment instead of by tamping. For compaction by tamping (or rolling), the rate at which backfilling material is deposited in the trench shall not exceed that permitted by the facilities for its spreading, leveling, and compacting as furnished by the Contractor.

If necessary to ensure proper compaction by tamping (or rolling), the material shall first be wet by sprinkling. However, no compaction by tamping (or rolling) shall be done when the material is too wet either from rain or too great an application of water to be compacted properly. At such times, the work shall be suspended until the previously placed and new materials have dried out sufficiently to permit proper compacting, or such other precautions shall be taken as may be necessary to obtain proper compaction.

g. Ho Pac Trench Consolidation: Where the trench backfill is consolidated by the "Ho Pac" method and the depth of the trench from the road or ground surface to the top of the pipe exceeds eight feet, the trench backfill shall be placed and consolidated in two lifts of equal depth.

The approved backfill material shall be placed and compacted at a moisture content between four and eight percent (based on dry density, by weight), or with two percent of the optimum moisture content as determined by the moisture density relationship test specified in ASTM D 1557, at the option of the Engineer. Compaction shall be by a "Ho Pac" vibratory compactor or approved equal, operating at a frequency between ten and 40 Hertz, placed directly on the backfill surface, and applied with the maximum practical force applicable by the backhoe to which it is attached. Compaction effort shall be continued until no further visible settlement occurs.

h. Miscellaneous Requirements: Whatever method of compacting backfill is used, care shall be taken that stones and lumps shall not become nested and that all voids between stones shall be completely filled with fine material. Only approved quantities of stone and rock fragments shall be used in the backfill. The Contractor shall, as part of the work done under the items involving earth excavation and rock excavation as appropriate, furnish and place all other necessary backfill material.

All voids left by the removal of sheeting shall be completely backfilled with suitable materials, thoroughly compacted.

Where required, excavated material which is acceptable to the Engineer for surfacing or pavement sub base shall be placed at the top of the backfill to such depths as may be specified elsewhere or as directed. The surface shall be brought to the required grade and stones raked out and removed.

Embankments Over Pipe: Where the top of the pipe is less than three feet below the surface of the ground, additional fill shall be placed to form an embankment to cover and protect the pipe. The top of such embankment shall not be less than three feet above the top of the pipe and not less than one foot wider than the outside diameter of the pipe, with side slopes no steeper than one and one half horizontal to vertical, or of such section as may have been indicated by drawings. Such embankments shall be made of suitable dry earth, well compacted. Embankments must be maintained to the full required dimensions during the maintenance period of the Contract, and any settlement, washout, or deficiency occurring or found during that time shall be rectified and embankments brought up to the required height, width and slopes.

In general, such embankments may be made with materials excavated on the job and not used for backfill elsewhere. Should there not be sufficient surplus material for embankments, or should it be unsuitable or inconveniently located, the Contractor shall secure and provide sufficient suitable material. In any case, where the Town has provided borrow pits from which the Contractor may obtain filling material, the Contractor must conform to the conditions for excavating and moving such material as established by acts of the Town in obtaining such rights, and by indications on drawings or in other contract documents.

Openings through embankments for the passage of water and other purposes will be provided as indicated on drawings or elsewhere, or as ordered.

Grass shall be seeded or turf placed on embankments if, where, and as provided in contract documents. In general, if grassing is not required, the Contractor may, at his option, grass embankments to facilitate his maintenance. The Engineer may order grassing where not otherwise required under the general provisions for additional work if he deems proper.

**SIDEWALK INSTALLATION-VARIOUS LOCATIONS
SPECIAL PROVISIONS**

BID #GL-2020-17

Care shall be taken that sewer and appurtenances are not damaged by equipment or methods used for making and maintaining embankments.

Except as specific provisions may have been made in the Proposal for a particular contract, no payment other than prices bid for pipe will be paid for building and maintaining embankments or securing material therefore.

If, however, a price per cubic yard was established by the Proposal for filling material placed in embankments and/or in fills at side of embankment to avoid the formation of depressions there, the quantity of such filling material will be estimated and paid as the actual quantity placed, up to, but not exceeding the lines or sections required, measured after the embankment or fill has been made.

Material for Filling and Embankments: Approved selected materials available from the excavations and not required for backfill around pipes or against structures may be used for filling and building embankments, except as otherwise specified. Material needed in addition to that available from construction operations shall be obtained from approved gravel banks or other approved deposits. The Contractor shall furnish, at no cost, all borrowed material needed on the work.

All material, whether from the excavations or from borrow, shall be of such nature that after it has been placed and properly compacted it will make a dense, stable fill. It shall not contain vegetation, masses of roots, individual roots more than 18 inches long or more than one half inch in diameter, stones over six inches in diameter, or porous matter. Organic matter shall not exceed minor quantities and shall be well distributed.

Preparation of Subgrade: The Contractor shall remove loam and topsoil, loose vegetable matter, stumps, large roots, etc. from areas upon which embankments will be built or material will be placed for grading. The subgrade shall be shaped as indicated on the drawings and shall be so prepared by forking, furrowing, or plowing so that the first layer of the new material placed thereon will be well bonded to it.

Placing and Compacting Material: After the subgrade has been prepared as hereinbefore specified, the material shall be placed thereon and built up in successive layers until it has reached the required elevation.

Layers shall not exceed 12 inches in thickness before compaction. In embankments at structures, the layers shall have a slight downward slope away from the structure. In other embankments, the layers shall be slightly dished toward the center. In general, the finer and less pervious materials shall be placed against the structures or in the center, and the coarser and more pervious materials, upon the outer parts of embankments.

Each layer of material shall be compacted by the use of approved rollers or other approved means so as to secure a dense, stable and thoroughly compacted mass. At such points as cannot be reached by mobile mechanical equipment, the materials shall be thoroughly compacted by the use of suitable power driven tampers.

Previously placed or new materials shall be moistened by sprinkling, if required, to ensure proper bond and compaction. No compacting shall be done when the material is too wet, from either rain or too great an application of water, to compact it properly. At such times, the work shall be suspended until the previously placed and new materials have dried out sufficiently to permit proper compaction.

Method of Measurement:

Earth trench excavation, trench support (including sheeting, shoring or bracing as required by soil conditions), dewatering, backfilling, compacting, and disposal of surplus excavated material will not be measured for payment but the cost of this work shall be included in the unit price or lump sum price of the item associated therewith.

**SIDEWALK INSTALLATION-VARIOUS LOCATIONS
SPECIAL PROVISIONS**

BID #GL-2020-17

Basis of Payment:

This item will not be paid for separately. Rather, payment for earth trench excavation, trench support (including sheeting, shoring or bracing as required by soil conditions), dewatering, backfilling, compacting, and disposal of surplus excavated material shall be included in the unit price or lump sum price of the item associated therewith.

ITEM # 0219011A

SEDIMENT CONTROL SYSTEM AT CATCH BASIN

Description:

This work shall consist of furnishing, installing, maintaining, cleaning, and removing a sediment control system at catch basin for control of sediment entering catch basins within the project area as directed by the Engineer or as shown on the contract drawings.

Materials:

Sediment control system at catch basin shall be the "Siltsack" product as manufactured by ACF Environmental or approved equal. Curb inlet (Type 'C') catch basins shall use a "Type B – High Flow" siltsack (with gutter deflector) without the optional overflow. Flat top (Type C-L) catch basin shall use a "Type A – High Flow" siltsack without the optional overflow.

Sediment control system at catch basin shall be manufactured from a specially designed woven polypropylene geotextile and sewn using high strength nylon thread. The sediment control system at catch basin shall be manufactured to fit the opening of the catch basin or drop inlet to be protected. Sediment control sack shall have the following features: two dump straps attached at the bottom to facilitate emptying; lifting loops shall be included as an integral part of the system to be used to lift the sedimentation control sack from the basin; sediment control sack shall have a restraint cord approximately halfway up the sack to keep the sides away from the catch basin walls, this yellow cord is also a visual means of indicating when the sack should be emptied. Once the strap is covered with sediment, sediment control sack should be emptied, cleaned and placed back into the basin.

Construction Methods:

To install the sediment control system in the catch basin, remove the grate and place the sack in the opening. Hold out approximately six inches of the sack outside the frame. This is the area of the lifting straps. Replace the grate to hold the sack in place.

When the restraint cord is no longer visible, the sediment control system at catch basin is full and should be emptied.

To remove the sediment control sack, take two pieces of 1" diameter rebar and place through the lifting loops on each side of the sack.

The sediment control sack shall be cleaned of all accumulated sediment **on a regular basis** as required to maintain proper function and avoid overloading the sack such that it fails at the time of final removal. Such material shall be properly disposed of by the Contractor.

To empty the sediment control sack, place it where the contents will be collected. Place the rebar through the lift straps (connected to the bottom of the sack) and lift. This will turn the sedimentation control sack inside out and empty the contents. Clean out and rinse. Return the sedimentation control sack to its original shape and place back in the basin.

Method of Measurement:

The work will be measured for payment by the accepted number of each "Sediment Control System at Catch Basin", provided and installed in the locations depicted on the drawings.

**SIDEWALK INSTALLATION-VARIOUS LOCATIONS
SPECIAL PROVISIONS**

BID #GL-2020-17

Basis of Payment:

Sediment Control System at Catch Basin shall be paid for at the contract unit price for "Sediment Control System at Catch Basin" as listed in the Bid Proposal for each unit provided and installed. Regular maintenance of the sediment control system at catch basin including cleaning of all accumulated sediment as required to maintain function, and removal after completion of construction as described herein shall also to be included in this bid price.

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>
0219011A	SEDIMENT CONTROL SYSTEM AT CATCH BASIN	EA.

ITEM # 0404100A

BITUMINOUS CONCRETE PATCHING-FULL DEPTH

Description:

Work under this item consists of the Contractor constructing pavement repairs of unclassified excavation followed by the installation of new compacted subbase and the installation of hot mix asphalt (HMA) in accordance with these specifications, plans, and as directed by the Engineer. The work shall be comprised of the following:

Patch Excavation-Unclassified: Total Depth as required to excavate to the bottom of the process stone base material required for installation of Concrete Sidewalk Ramps.

Town of Glastonbury Local/Collector Roadway-Typical Section:

Existing Hot Mix Asphalt (HMA):	1.5"	HMA S0.375"
	2"	HMA S0.5"
Process Stone Base	4"	
Subbase:	12"	

Town of Glastonbury Arterial Roadway-Typical Section:

Existing Hot Mix Asphalt (HMA):	3" (Two Lifts)	HMA S0.5"
	6" (Two Lifts)	HMA S1.0"
Subbase:	10"	

Materials:

HMA Courses: The requirements of Section 4.06 of the Standard Specifications Form 817 apply.

Subbase: The requirements of Section M.02 Grading C Gravel shall apply except that reclaimed miscellaneous aggregate shall not be used.

Construction Methods:

Patch Excavation: Full Depth Patch repair excavation shall consist of the removal and disposal of all materials, the removal of which is necessary for the proper completion of the work, to a depth below the processed stone base required for installation of the Concrete Sidewalk Ramps.

1. Make the excavation square or rectangular with faces straight and vertical.
2. The Contractor shall use pavement saw cutting or equipment approved by the Engineer which will not damage adjacent pavement. A jack hammer and compressor will not be allowed for cutting the pavement surface.
3. Cut back and excavate the existing pavement an additional 12" in width from the limits of the proposed soil excavation as indicated on the plans and as directed by the Engineer.

Earth Excavation and Subbase: Where the soil in the bottom of the patch is found to be unsuitable, the Engineer shall order it removed and replaced with Grading "C" Gravel Subbase. The subbase shall be placed in lifts not to exceed 6" and shall be constructed to allow proper placement and thickness of the HMA materials. The subbase materials shall be compacted to a minimum of 95% of laboratory modified proctor, AASHTO T-

**SIDEWALK INSTALLATION-VARIOUS LOCATIONS
SPECIAL PROVISIONS**

BID #GL-2020-17

180. This additional excavation and construction of the granular subbase shall be considered included if required.

HMA: Swab or paint the existing vertical faces of the pavement with approved emulsified asphalt such that a uniform film or asphalt will remain when cured.

Place the intermediate binder course(s) using approved methods and compact to a minimum of 92% of the maximum theoretical specific gravity using power rollers or other mechanical methods to achieve satisfactory results. The perimeter of the patch shall be painted with tack coat or approved equal such that a 4" wide strip will be equally spaced on the new and existing pavement. The tack coat material shall be dusted with stone screenings or stone dust such that no tracking or pick-up of the seal will occur.

Traffic Control: The Contractor shall control and protect public traffic adjacent to and within the project site. The Contractor shall provide a traffic control plan conforming to the Manual on Uniform Traffic Control Devices (MUTCD), latest edition and Connecticut Department of Transportation (ConnDOT) Construction Traffic Control Plans as specified within the Standard Specifications Form 817. The Contractor is required to provide and supply certified flaggers, traffic cones and signs per the approved plans. If municipal police officers are required, the Town of Glastonbury will hire and pay for the services required.

No open excavations or partially completed patches shall be left open or uncompleted overnight.

One-Year Warranty: The Full-Depth Patch repairs shall be warranted for one (1) year after final acceptance.

The Contractor will perform all warranty work, including but not limited to, replacement, traffic Control and incidentals, at NO cost to the Town as long as written notification is provided within the warranty period, even if the repair work extends beyond the warranty period. Failure to perform the warrantee work, when notified, will limit the Contractor from future work in the Town.

The Contractor shall perform all required repairs, including replacement, to meet the requirements of this specification. Temporary repairs will be replaced with permanent repairs as weather allows.

Method of Measurement:

The work will be measured for payment by the accepted number of square yards of "Bituminous Concrete Patching-Full Depth", of the type specified, complete in place. Measured limits of the Bituminous Concrete Patching-Full Depth shall be made to the outside limits of the 12" cut back of the existing bound surface, as shown in the details in the construction plans.

There will be no direct measurement for payment of saw cutting, excavation, disposal of surplus materials, subbase, compaction, preparation of the patch, tack coating, and construction of the required depth of HMA Intermediate Course(s) and traffic control. This work and material will be included in the unit price for "Bituminous Concrete Patching-Full Depth".

Basis of Payment:

The furnishing and installing of "Bituminous Concrete Patching-Full Depth" shall be paid for at the contract price per square yard. The unit price shall include saw cutting, excavation, disposal of surplus materials, subbase, compaction, preparation of the patch, tack coating, and construction of the required depth of HMA Intermediate Course(s), traffic control and warrantee in accordance with the specifications and as directed by the Engineer. Payment shall include all labor, materials, equipment, cleaning of pavement surface, material disposal and incidentals necessary to complete the work described.

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>
0404100A	BITUMINOUS CONCRETE PATCHING-FULL DEPTH	S.Y.

ITEM # 0913002A

6 FOOT TALL PVC PRIVACY FENCE

Description:

Work under this item shall consist of furnishing and installing 6-foot tall PVC Oklahoma privacy fence with traditional caps and supported by pressure treated posts anchored in concrete footings sleeved with a PVC vinyl fence post where indicated on the plans or as directed by the Engineer.

Both ends of fence shall incorporate a curved/tapered end panel that reduces the overall fence height to approximately 3.5 feet.

Installation shall be by skilled workman normally engaged in the installation of fence. The work shall include all materials, labor and equipment necessary to complete the construction and erection of the fence. The Contractor shall be responsible for field measurements and location of fencing.

Materials:

The Contractor shall submit shop drawings and/or catalog cuts including details illustrating fence height, sizes of posts, rails, sections and all appurtenances for approval, prior to fence fabrication.

Fence Panels: 6 foot tall Oklahoma privacy fence. Color shall be white. Fence sections shall have interlocking tongue & groove board and heavy duty 2" x 6" steel reinforced bottom rail. Face pattern shall be the same on both sides and shall securely to compatible posts without hardware or glue. Acceptable suppliers: All Fence of 119 Griswold Street, Glastonbury CT 06033 (860)-633-1313, Interstate Visions Wholesale Fence of Amityville New York, or approved equal.

Posts: Low maintenance, vinyl fence post designed to securely lock panels into place without brackets or hardware. Posts shall be designed for use with the adjacent panel sections by approved manufacturer. Posts shall have the ability to be used as either corner or line posts. The posts shall include a traditional post cap and post hole covers. Color shall be white.

Construction Methods:

All fence materials shall be purchased, delivered, stored and handled to prevent damage or surface marks.

Line Establishment: The Contractor shall establish and control the line between the corners and place the fence posts along this line in the locations depicted on the approved plans.

Post Installation: Shall be performed according to the manufacturer's installation instructions. Posts shall be set vertically in all directions so that the bottom of the fence panels shall be along the ground without a gap and in a continuous fashion across the top. Install post hole covers and post caps shall be placed according to Manufacturer's installation instructions.

Panel Installation: Shall be performed according to the manufacturer's installation instructions. Fence panel sections shall be set vertically between the posts and securely locked into place. The bottom of the fence panels shall be along the ground without a gap and in a continuous fashion across the top.

Clean-Up: Spoils from post holes and any ground adjustment needed for fence panel installations shall be removed or blended on-site and left in the same conditions as the surrounding area.

Method of Measurement:

6 Foot Tall PVC Privacy Fence will be measured by the actual number of linear feet of completed and accepted fence measured from outside to outside of terminal posts.

**SIDEWALK INSTALLATION-VARIOUS LOCATIONS
SPECIAL PROVISIONS**

BID #GL-2020-17

Basis of Payment:

“6 Foot Tall PVC Privacy Fence” will be paid for at the contract unit price per linear foot, complete in place, which price shall include furnishing, delivery, storage of required Fence Post, Fence Panels, Fence Post Caps and hardware, all required excavation and disposal of surplus material, concrete, equipment, tools, materials and labor incidental thereto.

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>
0913002A	6 FOOT TALL PVC PRIVACY FENCE	L.F.

ITEM # 0915001A TREE PROTECTION TRENCH

Description:

This work includes excavation of a tree protection trench adjacent to an existing or proposed sidewalk by means of a chain-driven trenching machine (Ditch Witch or similar) with additional pruning of roots using hand methods as required. This is performed adjacent to the proposed sidewalk excavation and within the drip line of an existing tree to cleanly sever roots prior to sidewalk or other trench excavation.

The services of a licensed arborist will be required to supervise the above referenced work and shall be included in the contract unit price for tree protection trench.

Construction Methods:

Tree protection trench shall be installed in advance of the intended construction during time periods where damage to trees will be minimized, as directed by the Engineer. The work area shall generally include the length of sidewalk within the drip line of the canopy of the tree of concern. Extreme care shall be taken by the Contractor to identify and protect underground utilities within the work area, and any conflicts shall be immediately brought to the attention of the Engineer.

Where tree protection trench is called for on the plans, the Contractor shall use a chain-driven trenching apparatus to cleanly sever tree roots adjacent to the sidewalk to the full depth of the sidewalk excavation as directed by the Engineer. Additional pruning of roots using hand methods may also be required, as directed by the Engineer or licensed arborist supervising the work.

The disturbed area shall be restored to existing grades and shall be seeded as per the special provision for "TURF ESTABLISHMENT" included elsewhere in these specifications.

Method of Measurement:

Tree protection trench shall be measured for payment by the number of linear feet of tree protection trench installed and accepted.

Basis of Payment:

"Tree Protection Trench" will be paid for at the contract unit price per linear foot, complete in place, which price shall include all materials, equipment, tools, labor, and work incidental thereto.

The services of a certified arborist to supervise work under this item shall not be measured separately for payment, but rather shall be included in the contract unit price for "Tree Protection Trench".

Restoration of disturbed areas shall be measured and paid for under the pay item for "TURF ESTABLISHMENT".

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>
0915001A	TREE PROTECTION TRENCH	L.F.

**ITEM # 0921001A
ITEM # 0921005A**

**CONCRETE SIDEWALK
CONCRETE SIDEWALK RAMP**

Description:

The Contractor is to construct sidewalks to lines and grades as shown on the plans or at locations as directed by the Engineer. Concrete sidewalks shall be five inches thick, except at industrial and commercial driveways where it shall be eight inches thick and reinforced with 6" x 6" 10/10 steel mesh. Sidewalk construction shall include the removal of existing and construction of new house lateral walks where new sidewalk grades make it necessary. The sidewalk shall pitch to the street at a slope of ¼-inch per foot or as directed by the Engineer.

Concrete sidewalk ramps are to be constructed to the lines and grades shown on the plans or at locations as directed by the Engineer, and shall be a minimum of five inches thick. This work shall also include furnishing and installing Detectable Warning Strips in the locations and to the dimensions and details shown on the plans or as ordered by the Engineer.

Materials:

Processed Stone Base: The material for this item shall be **crushed trap rock** conforming to the requirements of Article M.05.01 Processed Aggregate Base and Pavement of the Form 817, except that coarse aggregate shall be broken stone, and fine aggregate shall be stone sand, screenings, or a combination thereof. Gravel or reclaimed miscellaneous aggregate shall not be used.

Forms: The forms used shall be five-inch steel or 2" x 6" wood firmly supported and staked to the line and grade given by the Engineer. **2"x4" wood forms shall not be used and shall be cause for immediate rejection of sidewalk.** The forms shall be free from warp and shall be of sufficient strength to resist springing out of shape. All forms shall be cleaned and oiled before use.

Reinforcing: Wire mesh reinforcing for 8"-thick concrete sidewalk shall be plain finish, 6 inches X 6 inches, No. 10 gauge welded steel wire mesh meeting ASTM specifications A-185-02 and the requirements of Article M.06.01-Reinforcing Steel –Section 3-Wire and Welded Steel Wire Fabric of the Form 817.

Concrete: The concrete furnished shall conform with respect to composition, transportation, mixing and placing, to Class F Cement Concrete 4,400 PSI, as specified by the State of Connecticut Department of Transportation in its latest specification and revisions. An approved air-entraining admixture shall be used to entrain 5% to 7% air in the concrete.

Concrete Curing Compound / Sealer: All concrete sidewalks shall be treated using Repel 100 by Kingdom Products curing compound / sealer which contains water and road salt resistance additives or approved equal meeting ASTM C309, Type 1, Class A and B.

Detectable Warning Strips: The Detectable Warning Strip shall be a replaceable tactile warning surface tile as manufactured by ADA Solutions, Inc of P.O. Box 3, North Billerica MA 01862 Tel: 800.372.0519 Fax: 978.262.9125 www.adatale.com or approved equal. Tile shall be brick red in color (Federal Color # 20109) and all attachment hardware shall be stainless steel. The tile shall conform to the dimensions shown on the plans or as directed by the Engineer.

Dowels: Smooth metal dowels, 5/8-inch in diameter, measuring 18 inches in length shall be installed using plastic sleeves within all expansion and contraction joints, concrete driveway aprons, at concrete sidewalk ramps, and at the last end section of each sidewalk slab poured at the end of each working day.

Plastic sleeves of the size required for accepting the 5/8-inch by 18-inch smooth metal dowels shall be "Speed Dowel" sleeves as manufactured by Greenstreak, 3400 Tree Court Industrial Blvd, St. Louis, MO 63122,

**SIDEWALK INSTALLATION-VARIOUS LOCATIONS
SPECIAL PROVISIONS**

BID #GL-2020-17

telephone number (800) 551-5145 or approved equal. Plastic sleeves shall be installed according to manufacturer instructions and as directed by the Engineer.

Smooth metal dowels shall be 5/8-inch in diameter and 18 inches in length. All metal dowels shall conform to the requirements of ASTM A615 Grade 60.

Expansion Joints: At maximum intervals of 15 feet, an expansion joint shall be placed to the full depth of the concrete slab. The material for expansion joints shall be 1/2-inch thick asphalt impregnated bonded cellular fiber or approved equal. Expansion joints of the same material shall also be placed at points abutting existing structures.

Construction Methods:

Limits of Disturbance: The Contractor is to exercise caution to prevent unnecessary damage to lawns, trees, bushes, or any other existing improvements. If, in the opinion of the Engineer, existing improvements are damaged due to the carelessness of the Contractor, the same shall be repaired or replaced at the Contractor's expense.

Earthwork: The Contractor shall remove and dispose of grass, rubbish, and other objectionable materials within the limits of the sidewalk construction. The Contractor shall perform all excavation necessary within the grading limits to support and construct sidewalks to the lines and grades as shown on the plans and cross sections or as directed by the Engineer. Excavation shall include sawcutting, removal and disposal of bituminous concrete, existing concrete sidewalks, existing concrete sidewalk ramps, driveways and pavements, including curbing and tree roots, where necessary, due to sidewalk grade and as shown on the plans or as directed by the Engineer. When connecting new concrete sidewalk to a section of existing concrete sidewalk, the connection point shall be at the nearest joint in the existing sidewalk. Existing house lateral walks and driveways adjacent to the sidewalk shall be removed and base graded and prepared for a smooth connection. The Contractor shall remove and dispose of all excess material.

Suitable excavated material shall be re-used within the project limits as directed by the Engineer to form embankment for sidewalks where required. Embankment formation shall be completed as described in Article 2.02.03 of the Form 817, and shall meet the proposed subgrade elevations described on the plans or directed by the Engineer. Excess earth materials shall become the property of the Contractor and shall be disposed of at no additional cost to the Town.

Processed Stone Base Installation: The processed stone base course shall be spread upon the prepared subgrade to such depth as to give a compacted thickness of eight (8) inches. The material shall be uniformly spread in two layers of equal depth in the entire base course excavation and each layer shall be wetted and compacted to a firm even surface with a roller weighing not less than 500 pounds or by use of pneumatic tampers or vibratory compactors.

Installation of Dowel abutting existing sidewalks: Dowels are to be installed between new and existing concrete slabs at all expansion joint locations. Where new or repaired walks abut up against existing concrete sidewalks, the Contractor shall drill two holes measuring 3/4-inches in diameter and 9 inches minimum depth into the existing concrete slab. The dowels shall be set into the existing sidewalk slab prior to the placement of new concrete. The dowels are to be level with the latitude pitch of the sidewalk and shall conform to details of these specifications. Dowel sleeves shall be installed on the new concrete sidewalk end of the dowel.

Concrete Work: The surface finish shall be struck off, forcing coarse aggregate below mortar surface. After strike-off, the surface shall be worked and floated with a wooded, aluminum, or magnesium float followed by steel troweling. The slab shall then be broomed cross-wise with a fine hair broom. The outside edges of the slab shall be edged with a 1/4-inch radius tool. All edging lines shall be removed.

**SIDEWALK INSTALLATION-VARIOUS LOCATIONS
SPECIAL PROVISIONS**

BID #GL-2020-17

The Detectable Warning Strip shall be set directly in poured concrete according to the plans and the manufacturer's specifications or as directed by the Engineer. The Contractor shall place two 11.34 Kg concrete blocks or sandbags on each tile to prevent the tile from floating after installation in wet concrete.

Curing Compound / Sealer Application: The Contractor shall apply the approved curing compound / sealer using a 3/8" nap roller or low pressure sprayer at a rate of 200 to 300 square feet per gallon and according to manufacturer installation instructions or as directed by the Engineer. Concrete surface shall be clean and free of any surface contaminants when applying sealer. When applying sealer to fresh concrete the bleed water must be off the surface as this water can inhibit proper function of the sealer. Any areas where the sealer puddles shall be immediately spread to other areas where absorption can occur to avoid undesirable appearance of finished surface. Sealer shall not be applied if rain is forecast within 24 hours, or if ambient temperature at the time of application is below 50 degrees or above 80 degrees Fahrenheit, or as directed by the Engineer.

Newly constructed sidewalk surfaces shall be protected from all foot or vehicular traffic for a period of seven days. The Contractor shall have on the job, at all times, sufficient polyethylene film or waterproof paper to provide complete coverage in the event of rain.

Temperature: No concrete is to be placed when air temperature is below 40°F, or at 45°F and falling, unless prior approval is given by the Engineer. In the event weather conditions may be such that concrete that is not completely cured is subject to freezing, the Contractor shall provide a minimum of a six-inch layer of hay, straw, or thermal blankets for protection. Any concrete laid during cold weather that is damaged by freezing shall be the responsibility of the Contractor and shall be replaced at his expense.

Final Grading: Upon completion of sidewalk construction, the Contractor is to re-grade the areas between sidewalks and curbs, if the typical section indicates a grass plot, and disturbed areas back of the sidewalk. The Contractor shall backfill and compact these areas so as to conform to the typical cross-section. The upper four inches of the backfill shall be loam or topsoil, loose and friable and free of sticks, rocks, roots, weeds, or other unsuitable material.

Method of Measurement:

Concrete Sidewalk will be measured by the actual number of square feet of completed and accepted Concrete Sidewalks.

Concrete Sidewalk Ramp will be measured by the actual number of square feet of completed and accepted Concrete Sidewalk Ramp.

Excavation: Excavation below the finished grade of the concrete sidewalk or concrete sidewalk ramp, backfilling, and disposal of all surplus materials required within the grading limits to support and construct sidewalks to the lines and grades as shown on the plans and cross sections will not be measured for payment; but the cost shall be included in the price bid for Concrete Sidewalk of the type specified.

Blankets and concrete additives required for cold weather concrete installation will not be measured for payment but the cost shall be included in the bid price for Concrete Sidewalk or Concrete Sidewalk Ramp of the type specified.

Processed Stone Base Course: This work will not be measured for payment but the cost shall be included in the price bid for Concrete Sidewalk or Concrete Sidewalk Ramp of the type specified.

Detectable Warning Strips: The detectable warning strip required per the details for new construction of the accessible curb ramps will not be measured for payment. All materials, equipment, tools and labor incidental thereto shall be included in the bid price for Concrete Sidewalk Ramp.

**SIDEWALK INSTALLATION-VARIOUS LOCATIONS
SPECIAL PROVISIONS**

BID #GL-2020-17

Dowels and Sleeves: This work will not be measured for payment but the cost shall be included in the price bid for Concrete Sidewalk or Concrete Sidewalk Ramp of the type specified.

Expansion Joint Material: This work will not be measured for payment but the cost shall be included in the price bid for Concrete Sidewalk or Concrete Sidewalk Ramp of the type specified.

Curing Compound/Sealer: This work will not be measured for payment but the cost shall be included in the price bid for Concrete Sidewalk or Concrete Sidewalk Ramp of the type specified.

Basis of Payment:

“Concrete Sidewalk” will be paid for at the contract unit price per square foot, complete in place, which price shall include all required excavation and disposal of surplus material, removal and disposal of existing concrete sidewalk, processed stone base, compaction, expansion joint material, dowels, dowel sleeves, finishing, curing compound/sealer, backfill, blankets, cold weather concrete additives, equipment, tools, materials and labor incidental thereto.

“Concrete Sidewalk Ramp” will be paid for at the contract unit price per square foot complete in place, which price shall include all required excavation and disposal of surplus material, removal and disposal of existing concrete sidewalks, processed stone base, compaction, wire mesh reinforcing, expansion joint material, dowels, dowel sleeves, finishing, curing compound/sealer, furnishing and placing detectable warning strip, backfill, blankets, cold weather concrete additives, equipment, tools, materials and labor incidental thereto.

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>
0921001A	CONCRETE SIDEWALK	S.F.
0921005A	CONCRETE SIDEWALK RAMP	S.F.

ITEM # 0922501A BITUMINOUS CONCRETE DRIVEWAY

Work under this item shall conform to the applicable provisions of Section 9.22 of the Standard Specifications Form 817 amended as follows:

Description:

The item "Bituminous Concrete Driveway" shall include sawcutting, excavation to the required depth below finish grades and furnishing and installing all materials to construct the bituminous concrete driveway complete with compacted aggregate base to the lines and grades shown on the plans and as directed by the Engineer.

Materials:

Bituminous Concrete: Materials shall conform to the requirements of Form 817 Section 4.06-0.375 inch Superpave.

Processed Stone Base: Material shall conform to the requirements of Section 3.04-Processed Stone Base of these Specifications.

Backfill: Suitable earth material which shall be free from admixture of subsoil, refuse, stumps, roots, rocks, brush, weeds, and other material which will prevent the formation of a suitable bed.

Construction Methods:

Excavation: Excavation, including removal of any existing asphalt, concrete snow shelf, bituminous sidewalk or bituminous driveway shall be made to the required depth below finished grade, as shown on the plans or as directed by the Engineer. Sawcuts shall be made at all limits of work to provide a clean vertical joint. Sawcuts at limits of work, or any intermediate sawcut performed to facilitate excavation shall not be measured for payment separately. All soft and yielding material shall be removed and replaced with suitable backfill material.

Base Course: Processed Stone Base for the base course shall be uniformly spread to the required depth and thoroughly compacted with a self-propelled roller with a mass of not less than 1 ton. In areas not accessible to the roller, the mixture shall be thoroughly compacted with hand tampers and vibratory plate compactors.

Bituminous Concrete Surface: This surface shall be constructed in accordance with the requirements of Form 817 Section 4.06, except that the material may be spread by hand. Driveway aprons shall be placed and compacted in one lift. Compaction of the driveway bituminous concrete material shall be attained by self-propelled roller(s) with a mass of not less than 1 ton and to a minimum density of 90.0% of the theoretical maximum specific gravity of the mixture, or by methods approved by the Engineer. A tack coat shall be applied as indicated on the plans or as directed by the Engineer prior to placement of any bituminous materials.

The Contractor shall protect existing features to remain such as sidewalks, curbing, and utilities. Any damage to existing features shall be repaired at no cost to the Town.

Method of Measurement:

The Bituminous Concrete Driveway aprons shall be measured for payment by the actual number of square yards of completed and accepted Bituminous Concrete Driveway.

**SIDEWALK INSTALLATION-VARIOUS LOCATIONS
SPECIAL PROVISIONS**

BID #GL-2020-17

Basis of Payment:

This work shall be paid for at the contract unit price per square yard for "Bituminous Concrete Driveway" completed in place and accepted, which price shall include all excavation as specified above, sawcuts, preparation of subgrade, suitable backfill, processed stone base, bituminous material, disposal of surplus material, tack coat, and all equipment, tools, labor, and materials incidental hereto.

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>
0922501A	BITUMINOUS CONCRETE DRIVEWAY	S.Y.

ITEM # 0944000A FURNISHING AND PLACING TOPSOIL

Description:

This work shall consist of furnishing, placing, and shaping topsoil in areas shown on the plans where directed by the Engineer. The topsoil shall be placed to the depth stated in the Contract or specifications.

Material:

The material shall conform to the requirements of Article M.13.01.1 of the Form 817.

Construction Methods:

The areas on which topsoil is to be placed shall be graded to a reasonably true surface and cleaned of all stones, brickbats, and other unsuitable materials. After areas have been brought to proper subgrade and approved by the Engineer or his agent, loam shall be spread to a depth as indicated in the Contract, or to a depth of no less than four inches, with due allowance made for settlement. All stones, roots, debris, sod, weeds, and other undesirable material shall be removed from the topsoil. After shaping and grading, all trucks and other equipment shall be excluded from the topsoiled area to prevent excessive compaction. The Contractor shall perform such work as required to provide a friable surface for seed germination and plant growth prior to seeding.

During hauling and spreading operations, the Contractor shall immediately remove any material dumped or spilled on the shoulders or pavement.

It shall be the Contractor's responsibility to restore to line, grade, and surface all eroded areas with approved material and to keep topsoiled areas in acceptable condition until the completion of the construction work.

Method of Measurement:

This work will be measured for payment by the number of square yards of area on which the placing of the topsoil has been completed and the work accepted.

The limits of payment shall be to the slope limits as shown on the plans. In the absence of slope limits, the maximum area of measurement shall be the area extending two feet behind the sidewalk and the area between the sidewalk and edge of pavement.

No payment shall be made outside of these limits unless the disturbance was directed or approved by the Engineer. No payment shall be made for areas disturbed for staging, storage of materials, or other area disturbed for the convenience of the Contractor.

Basis of Payment:

This work will be paid for at the contract unit price per square yard for "Furnishing and Placing Topsoil" as listed in the Bid Proposal which price shall include all materials, equipment, tools, labor, and work incidental thereto.

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>
0944000A	FURNISH AND PLACING OF TOPSOIL	S.Y.

ITEM # 0950005A TURF ESTABLISHMENT

Description:

The work included in this item shall consist of providing an accepted uniform stand of established perennial turf grasses or wetland vegetation by furnishing and placing fertilizer, seed, and mulch on all areas to be treated as shown on the plans or where designated by the Engineer. The work will also include the installation of erosion control matting of the type indicated where shown on the plans or as directed by the Engineer.

Materials:

The materials for this work shall conform to the requirements of Section M.13 of the Form 817, except as noted below.

Seed mix for residential lawn areas shall consist of 30% Crest Kentucky Bluegrass, 30% Baron Kentucky Bluegrass, 20% Victory II Chewings Fescue, and 20% Perennial Rye Grass.

Seed mix for other roadside areas designated for turf establishment shall consist of 70% Red Fescue, 20% Kentucky Blue Grass, and 10% Perennial Rye Grass.

Wetland seed mix, when specified, shall be 25% New England Roadside Matrix Wet Meadow Seed Mix and 75% New England Erosion Control / Restoration Mix, as listed within New England Wetland Plants, Inc.'s catalog or approved equal.

Erosion Control Matting shall be a product of the type specified on the plans that is approved by the Connecticut Department of Transportation for the intended application as described in the "Qualified Products List" publication, latest edition.

Material certificates shall be provided for all materials supplied under this item.

Construction Methods:

Construction Methods shall be those established as agronomically acceptable and feasible and which are approved by the Engineer.

1. Preparation of the Seedbed:

(a) Level areas, medians, interchanges and lawns: These areas shall be made friable and receptive for seeding by disking or by other approved methods to the satisfaction of the Engineer. In all cases the final prepared and seeded soil surface shall meet the lines and grades for such surface as shown in the plans, or as directed by the Engineer.

(b) Slope and Embankment Areas: These areas shall be made friable and receptive to seeding by approved methods which will not disrupt the line and grade of the slope surface. In no event will seeding be permitted on hard or crusted soil surface.

(c) All areas to be seeded shall be reasonably free from weeds taller than 3 inches. Removal of weed growth from the slope areas shall be by approved methods, including hand-mowing, which do not rut or scar the slope surface, or cause excessive disruption of the slope line or grade. Seeding on level areas shall not be permitted until substantially all weed growth is removed. Seeding on slope areas shall not be permitted without removal or cutting of weed growth except by written permission of the Engineer.

2. Seeding Season: The calendar dates for seeding shall be:

Spring—March 15 to June 15

Fall—August 15 to October 15

All disturbed soil areas shall be treated during the seeding seasons as follows:

(a) Areas at final grade: Seeding will be accomplished.

(b) "Out-of-season" seedings shall be performed in the same manner as "in-season" seedings. Since acceptable turf establishment is less likely, the Contractor shall be responsible for "in-season" reseeded until the turf stand conforms to this specification.

(c) During "out-of-season" periods unseeded areas shall be treated in accordance with Section 2.10, Water Pollution Control.

3. Seeding Methods: The seed mixture shall be applied by any agronomically acceptable procedure. The rate of application shall be no less than 175 pounds per acre or according to manufacturer instructions. Fertilizer conforming to M.13.03 shall be initially applied at a rate of 320 pounds per acre during or preceding seeding. When wood fiber mulch is used, it shall be applied in a water slurry at a rate of 2,000 pounds per acre with or immediately after the application of seed, fertilizer and limestone.

When the grass seeding growth has attained a height of 6 inches, the specified areas designated herein shall be mowed to a height of 3 inches. Following mowing, all seeding grass areas (mowed and un-mowed) shall receive a uniform application of fertilizer hydraulically placed at the rate of 320 pounds per acre.

4. Compaction: The Contractor shall keep all equipment and vehicular and pedestrian traffic off areas that have been seeded to prevent excessive compaction and damage to young plants. Where such compaction has occurred, the Contractor shall rework the soil to make a suitable seedbed; then re-seed and mulch such areas with the full amounts of the specified materials, at no extra expense to the Town.

5. Stand of Perennial Turf Grasses: The Contractor shall provide and maintain a uniform stand of established turf grass or wetland vegetation having attained a height of 6 inches consisting of no less than 100 plants per square foot throughout the seeded areas until the entire project has been accepted.

6. Establishment: The Contractor shall keep all seeded areas free from weeds and debris, such as stones, cables, baling wire, and he shall mow at his own expense, on a one-time-only basis, all slopes 4:1 or less (flatter) and level turf established (seeded) areas to a height of 3 inches when the grass growth attains a height of 6 inches. Clean-up shall include, but not be limited to, the removal of all debris from the turf establishment operations on the shoulders, pavement, and/or elsewhere on adjacent properties publicly and privately owned.

Method of Measurement:

This work will be measured for payment by the number of square yards of surface area of accepted established perennial turf grass or wetland vegetation as specified or by the number of square yards surface area of seeding actually covered and as specified.

Restoration of areas disturbed for staging, storage of materials, or other area disturbed for the convenience of the Contractor will not be measured for payment.

Basis of Payment:

This work will be paid for at the contract unit price per square yard for "Turf Establishment" or "Wetland Seeding" as listed in the Bid Proposal, which price shall include all materials, mowing, maintenance, equipment, tools, labor, and work incidental thereto. Partial payment of up to 60% may be made for work completed, but not accepted.

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>
0950005A	TURF ESTABLISHMENT	S.Y.

ITEM # 0970006A TRAFFICPERSON (MUNICIPAL POLICE OFFICER)

Work under this item shall conform to the applicable provisions of Section 9.70 of the Standard Specifications Form 817 supplemented as follows:

Description: Add the following to the first paragraph of Section 9.70.01

“Trafficpersons shall consist of uniformed flaggers meeting acceptable criteria or extra duty officers of the Glastonbury Police Department. The Contractor shall provide Uniformed Flaggers meeting the requirements of this specification as required for safe traffic operations in the project area. Extra-duty police officers will be used only when specifically required by the Police Chief, as the Local Traffic Authority, who will make this determination based on the Contractor’s proposed operations, traffic volumes, and traffic conditions.”

“All work under this item shall be paid only for the duration of the Contract as contained in the Special Conditions under ‘Time for Completion/Notice to Proceed’ and for any time extensions granted in writing by the Town. Payment for police officers required after the duration of the Contract and approved time extensions shall be made directly by the Town and such costs deducted from future payments due the Contractor.”

Basis of Payment: Replace Section 9.70.05 with the following:

“There will be no direct payment for safety garments or STOP/SLOW paddles. All costs associated with furnishing safety garments and STOP/SLOW paddles shall be considered included in the general cost of the item.

1. Trafficperson – Municipal Officer: The sum of money shown on the bid proposal as "Estimated Cost" for this work will be considered the bid price even though payment will be made as described below. The estimated cost figure is not to be altered in any manner by the bidder. Should the bidder alter the amount shown, the altered figures will be disregarded and the original price will be used to determine the total amount for the contract.

Police Officers will be paid for at the actual hourly rate charged for extra-duty police officers services by the Town (monthly statement or receipted bills). Use of a Town police vehicle requested by the Engineer will be paid at the actual rate charged by the Town. The rate charged by the Town for use of a Uniformed Town Police Officer and/or an official Town Police vehicle shall not be greater than the rate it normally charges others for similar services.

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>
0970006A	TRAFFICPERSON (MUNICIPAL POLICE OFFICER)	EST.

ITEM # 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 "PROSECUTION AND PROGRESS" where applicable.

The Town of Glastonbury CHIEF OF POLICE, acting in the capacity of the LOCAL TRAFFIC AUTHORITY, shall be the sole and final authority for the Maintenance and Protection of Traffic.

All Roadways

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 11 feet in width.

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 shall coordinate with the owner to determine the time period of the closure.

Article 9.71.03 - Construction Method is supplemented as follows:

General

The Contractor shall schedule operations such that all open excavations are backfilled or steel plated by the end of each active work period. The installation of steel plates shall be approved by the Town of Glastonbury Public Works Department prior to installation. Trenches and other excavations within the travelway that are backfilled shall be brought up to finished grade and paved with bituminous concrete pavement prior to reopening the roadway to vehicular traffic.

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 20 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 Engineer.

The Contractor, during the course of active construction work on overhead signs and structures, 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.

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

Existing Signing

The Contractor shall maintain all existing overhead and side-mounted signs throughout the project limits during 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 Engineer.

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. 42-inch traffic cones and approved traffic drums are to be utilized for lane closures.

Requirements for Winter

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

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.

Typical traffic control plans 19 through 25 may be used for moving operations such as line striping, pot hole patching, mowing, or sweeping when it is necessary for equipment to occupy a travel lane.

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 trafficperson 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 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 Engineer 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 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 Engineer, 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 District Engineer and the Office of Construction. The agenda should include:
- Review Project scope of work and time
 - Review Section 1.08, Prosecution and Progress
 - Review Section 9.70, Trafficpersons
 - Review Section 9.71, 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

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 Engineer 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 Engineer 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. If required, traffic slowing techniques may be used and shall include the use of Truck Mounted Impact Attenuators (TMAs) as appropriate, for a minimum of one mile in advance of the pattern starting point. 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 5c 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

- 6.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.
- 6.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.
- 6.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.
- 6.d) Typical spacing of traffic drums and/or cones shown on the Traffic Control Plans in the Contract are maximum spacing's and may be reduced to meet actual field conditions as required.

9.71.03 Construction Methods

Signing Patterns

The Contractor shall provide such safety measures, pavement markings, traffic control devices, incidental flagmen, and signs deemed necessary to safeguard and guide the traveling public through the work zones as ordered by the Engineer, included in the approved maintenance scheme, or as shown on the plan. The Contractor shall erect, maintain, move, adjust, clean, relocate, store all signs, barricades, drums, traffic cones, and delineators when, where, and as directed by the Engineer. The use of unauthorized or unapproved signs, barricades, drums, traffic cones, or delineators will not be permitted.

All signs in any one signing pattern shall be mounted at the same height above the pavement. The Contractor shall keep all signs in proper position, clean and legible at all times. The Contractor shall maintain the site so that no weeds, shrubbery, construction materials, equipment or soil will obscure any sign, light, or barricade. Signs that no longer pertain to the project conditions shall be removed or adjusted from the view of traffic. Traffic drums shall be used in place of traffic cones in traffic control patterns that are in effect for more than a 72-hour duration. Traffic drums shall be used to delineate raised catch basins and other hazards.

Pavement Markings

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

Interim Pavement Markings

The Contractor shall install painted pavement markings, which shall include centerlines, shoulder edge lines, lane lines (broken lines), 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 day/night. If the next course of bituminous concrete pavement will be placed within seven days, shoulder edge lines are not required. The painted pavement markings will be paid under the appropriate items.

If the Contractor will install another course of bituminous concrete pavement within 24 hours, the Contractor may install Temporary Plastic Pavement Marking Tape in place of the painted pavement markings by the end of the work day/night. These temporary pavement markings shall include centerlines, lane lines (broken lines) and stop bars; shoulder edge lines are not required. Centerlines shall consist of two 4 inch wide yellow markings, 2 feet in length, side by side, 4 to 6 inches apart, at 40-foot intervals. No passing zones should be posted with signs in those areas where the final centerlines have not been established on two-way roadways. Stop bars may consist of two 6 inch wide white markings or three 4 inch wide white markings placed side by side. The Contractor shall remove and dispose of the Temporary Plastic Pavement Marking Tape when another course of bituminous concrete pavement is installed. The cost of furnishing, installing and removing the Temporary Plastic Pavement Marking Tape shall be at the Contractor's expense.

If an intermediate course of bituminous concrete pavement will be exposed throughout the winter, then Epoxy Resin Pavement Markings should be installed unless directed otherwise by the Engineer.

Final Pavement Markings

The Contractor should install painted pavement markings on the final course of bituminous concrete pavement by the end of the work day/night. If the painted pavement markings are not installed by the end of the work day/night, then Temporary Plastic Pavement Marking Tape shall be installed as described above and the painted pavement markings shall be installed by the end of the work day/night on Friday of that week.

If Temporary Plastic Pavement Marking Tape is installed, the Contractor shall remove and dispose of these markings when the painted pavement markings are installed. The cost of furnishing, installing and removing the Temporary Plastic Pavement Marking Tape shall be at the Contractor's expense.

The Contractor shall install permanent Epoxy Resin Pavement Markings in accordance with Section 12.10 entitled "Epoxy Resin Pavement Markings, Symbols, and Legends" after such time as determined by the Engineer.

NOTE: Painted pavement markings will not be allowed as a substitution for either the permanent pavement markings or the Temporary Plastic Pavement Marking Tape on the final course of bituminous concrete pavement.

Dust Control

The Contractor shall be responsible for taking all steps necessary to minimize dust emanating from the project and for keeping the street free of accumulations of sand or similar materials. When ordered by the Engineer, the Contractor shall remove snow and take care of ice on temporary, new and existing sidewalks within the limits of the project. No additional payment will be made for this work.

Article 9.71.05 – Basis of Payment

**SIDEWALK INSTALLATION-VARIOUS LOCATIONS
SPECIAL PROVISIONS**

BID #GL-2020-17

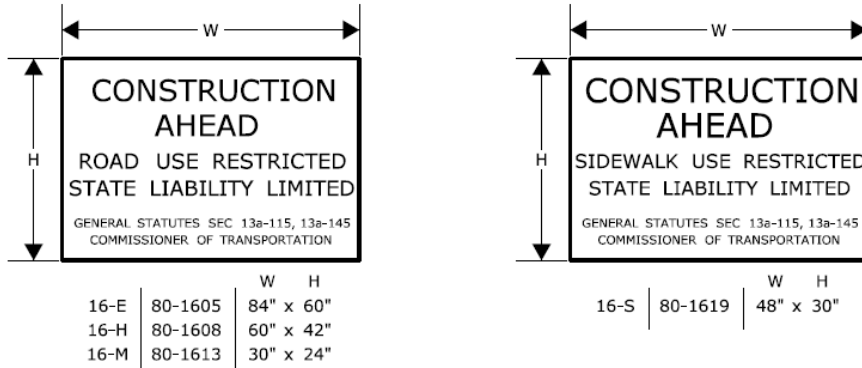
When the item of "Maintenance and Protection of Traffic" appears in the contract, this work will be paid for at the contract lump sum price for "Maintenance and Protection of Traffic" as listed in the Bid Proposal. This price shall include all material, equipment, tools, labor, transportation, operations and all work incidental thereto. The amount of the lump sum paid in any given period shall be proportional to the percentage of the total of all other work completed. Construction Signs, Cones, and Drums will not be measured for payment but the cost shall be included in the price bid for Maintenance and Protection of Traffic.

Should the Contractor fail to perform any of the work required under this item, the Town may perform or arrange for others to perform such work. In those instances, the Town will deduct money due or money to become due to the contractor all expenses connected with the execution of this work. This money shall be deducted even if the Town expense exceeds the price bid for this work by the Contractor.

The contract lump sum price for "Maintenance and Protection of Traffic" shall also include temporarily relocating existing signs and sign supports as many times as deemed necessary and furnishing, installing, and removing temporary sign supports and foundations if necessary during construction of the project.

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>
0971001A	MAINTENANCE AND PROTECTION OF TRAFFIC	LS.

SERIES 16 SIGNS



THE 16-S SIGN 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 TO ALLOW MOTORISTS THE OPPORTUNITY TO AVOID A WORK ZONE. SERIES 16 SIGNS SHALL BE INSTALLED ON ANY MAJOR INTERSECTING ROADWAYS THAT APPROACH THE WORK ZONE. ON LIMITED-ACCESS HIGHWAYS, THESE SIGNS SHALL BE LOCATED IN ADVANCE OF THE NEAREST UPSTREAM EXIT RAMP AND ON ANY ENTRANCE RAMPS PRIOR TO OR WITHIN THE WORK ZONE LIMITS.

THE LOCATION OF SERIES 16 SIGNS CAN BE FOUND ELSEWHERE IN THE PLANS OR INSTALLED AS DIRECTED BY THE ENGINEER.

SIGNS 16-E AND 16-H SHALL BE POST-MOUNTED.

SIGN 16-E SHALL BE USED ON ALL 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.

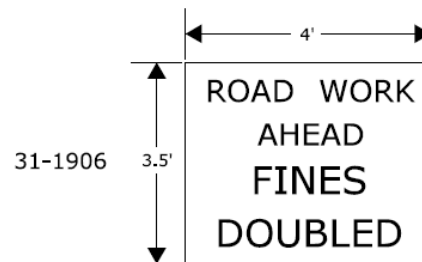
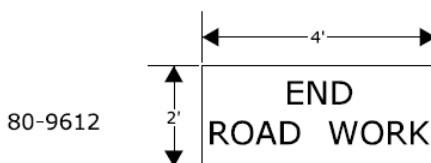
REGULATORY SIGN "ROAD WORK AHEAD, FINES DOUBLED"

THE REGULATORY SIGN "ROAD WORK AHEAD FINES DOUBLED" SHALL BE INSTALLED FOR ALL WORK ZONES THAT OCCUR ON ANY STATE HIGHWAY IN CONNECTICUT WHERE THERE ARE WORKERS ON THE HIGHWAY OR WHEN THERE IS OTHER THAN EXISTING TRAFFIC OPERATIONS.

THE "ROAD WORK AHEAD FINES DOUBLED" REGULATORY SIGN SHALL BE PLACED AFTER THE SERIES 16 SIGN AND IN ADVANCE OF THE "ROAD WORK AHEAD" SIGN.

"END ROAD WORK" SIGN

THE LAST SIGN IN THE PATTERN MUST BE THE "END ROAD WORK" SIGN.



SCALE: NONE

CONSTRUCTION TRAFFIC CONTROL PLAN
REQUIRED SIGNS

NOTES FOR TRAFFIC CONTROL PLANS

1. IF A TRAFFIC STOPPAGE OCCURS IN ADVANCE OF SIGN (A), THEN AN ADDITIONAL SIGN (A) SHALL BE INSTALLED IN ADVANCE OF THE STOPPAGE.
2. SIGNS (AA), (A), AND (D) SHOULD BE OMITTED WHEN THESE SIGNS HAVE ALREADY BEEN INSTALLED TO DESIGNATE A LARGER WORK ZONE THAN THE WORK ZONE THAT IS ENCOMPASSED ON THIS PLAN.
3. SEE TABLE 1 FOR ADJUSTMENT OF TAPERS IF NECESSARY.
4. IF THIS PLAN REMAINS IN CONTINUOUS OPERATION FOR MORE THAN 36 HOURS, THEN TRAFFIC DRUMS SHALL BE USED IN PLACE OF TRAFFIC CONES.
5. ANY LEGAL SPEED LIMIT SIGNS WITHIN THE LIMITS OF A ROADWAY / LANE CLOSURE AREA SHALL BE COVERED WITH AN OPAQUE MATERIAL WHILE THE CLOSURE IS IN EFFECT, AND UNCOVERED WHEN THE ROADWAY / LANE CLOSURE IS RE-OPENED TO ALL LANES OF TRAFFIC.
6. IF THIS PLAN REMAINS IN CONTINUOUS OPERATION FOR MORE THAN 36 HOURS, THEN ANY EXISTING CONFLICTING PAVEMENT MARKINGS SHALL BE ERADICATED OR COVERED, AND TEMPORARY PAVEMENT MARKINGS THAT DELINEATE THE PROPER TRAVELPATHS SHALL BE INSTALLED.
7. DISTANCES BETWEEN SIGNS IN THE ADVANCE WARNING AREA MAY BE REDUCED TO 100' ON LOW-SPEED URBAN ROADS (SPEED LIMIT < 40 MPH).
8. IF THIS PLAN IS TO REMAIN IN OPERATION DURING THE HOURS OF DARKNESS, INSTALL BARRICADE WARNING LIGHTS - HIGH INTENSITY ON ALL POST-MOUNTED DIAMOND SIGNS IN THE ADVANCE WARNING AREA.
9. A CHANGEABLE MESSAGE SIGN SHALL BE INSTALLED ONE HALF TO ONE MILE IN ADVANCE OF THE LANE CLOSURE TAPER.
10. SIGN (P) SHALL BE MOUNTED A MINIMUM OF 7 FEET FROM THE PAVEMENT SURFACE TO THE BOTTOM OF THE SIGN.

TABLE 1 - MINIMUM TAPER LENGTHS

POSTED SPEED LIMIT (MILES PER HOUR)	MINIMUM TAPER LENGTH FOR A SINGLE LANE CLOSURE
30 OR LESS	180' (55m)
35	250' (75m)
40	320' (100m)
45	540' (165m)
50	600' (180m)
55	660' (200m)
65	780' (240m)

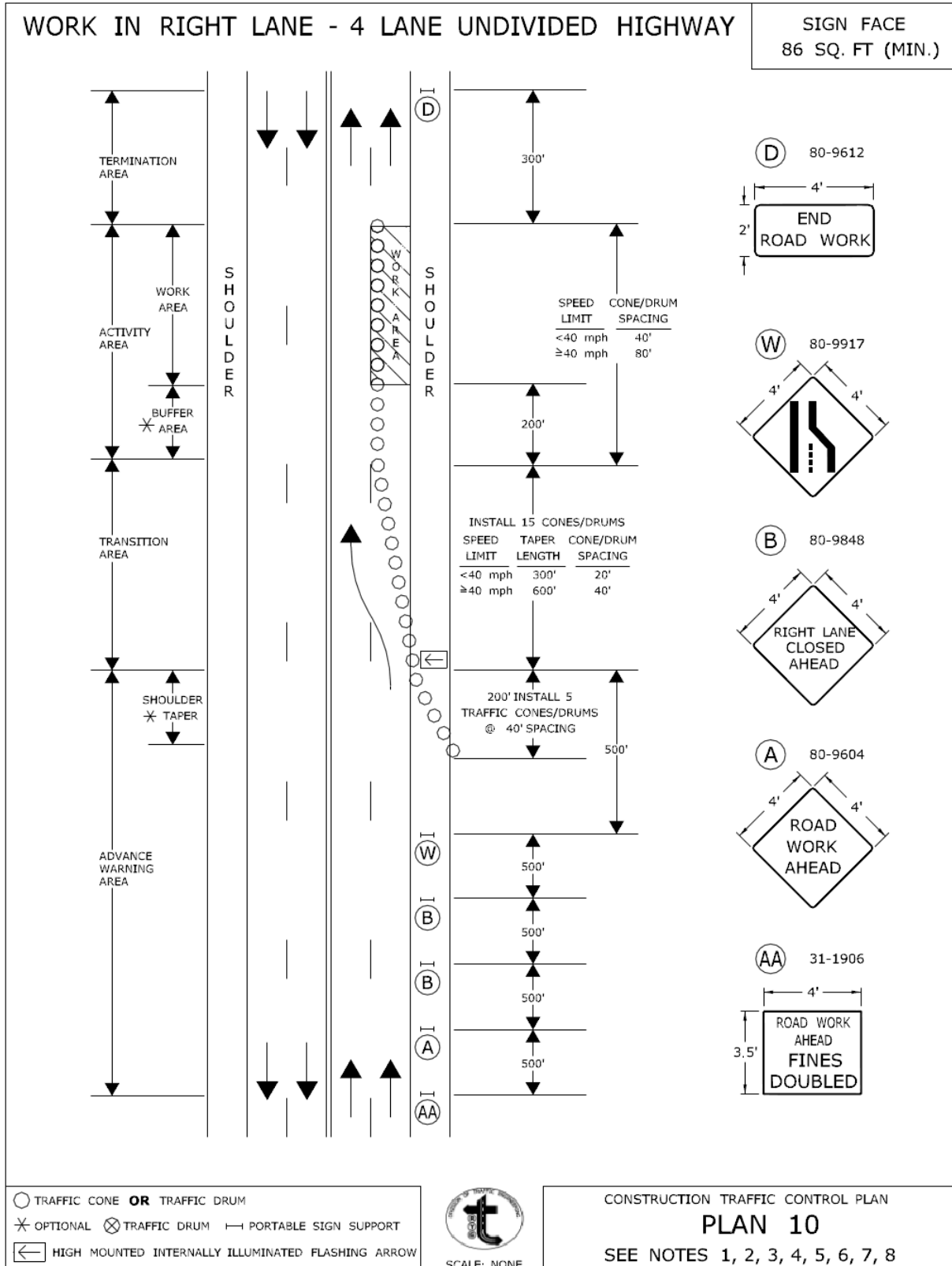
METRIC CONVERSION CHART (1" = 25mm)

ENGLISH	METRIC	ENGLISH	METRIC	ENGLISH	METRIC
12"	300mm	42"	1050mm	72"	1800mm
18"	450mm	48"	1200mm	78"	1950mm
24"	600mm	54"	1350mm	84"	2100mm
30"	750mm	60"	1500mm	90"	2250mm
36"	900mm	66"	1650mm	96"	2400mm



SCALE: NONE

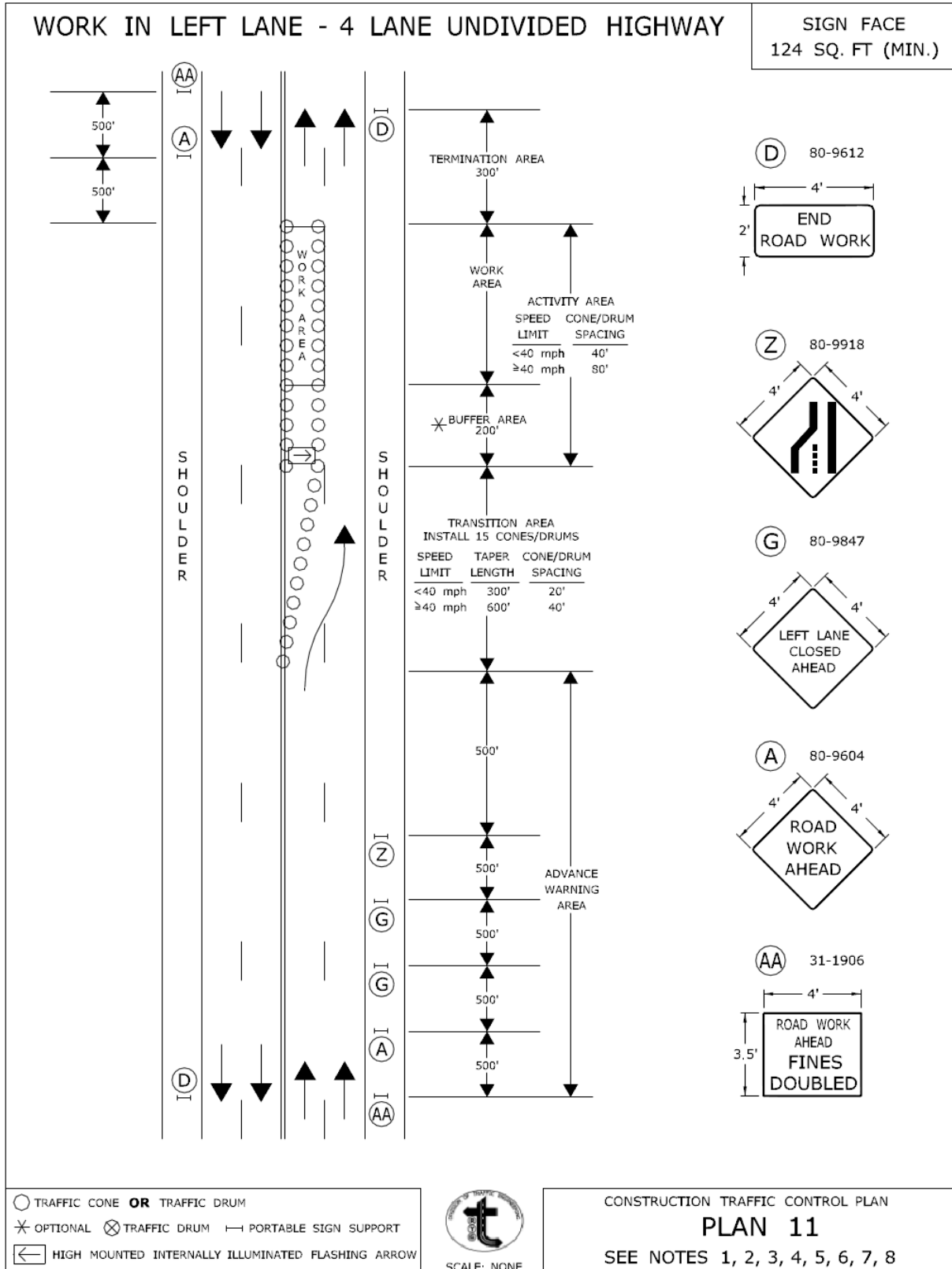
**CONSTRUCTION TRAFFIC CONTROL PLAN
NOTES**



CONNECTICUT DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING & CONSTRUCTION

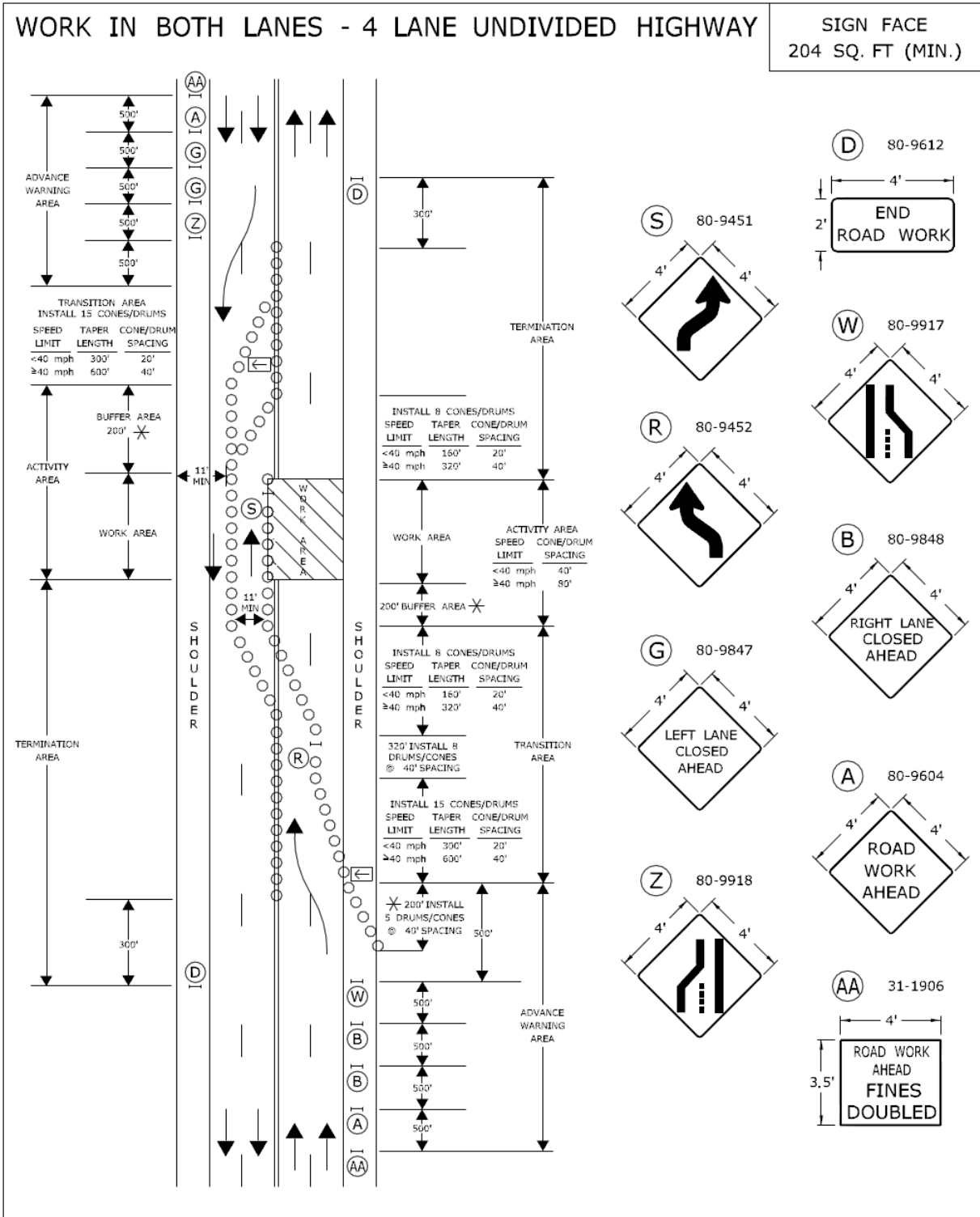
APPROVED

Charles S. Harlow
Charles S. Harlow
2012.06.05 15:54:15-0400
PRINCIPAL ENGINEER



CONNECTICUT DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING & CONSTRUCTION

APPROVED Charles S. Harlow
2012.06.05 15:54:36-0400
PRINCIPAL ENGINEER



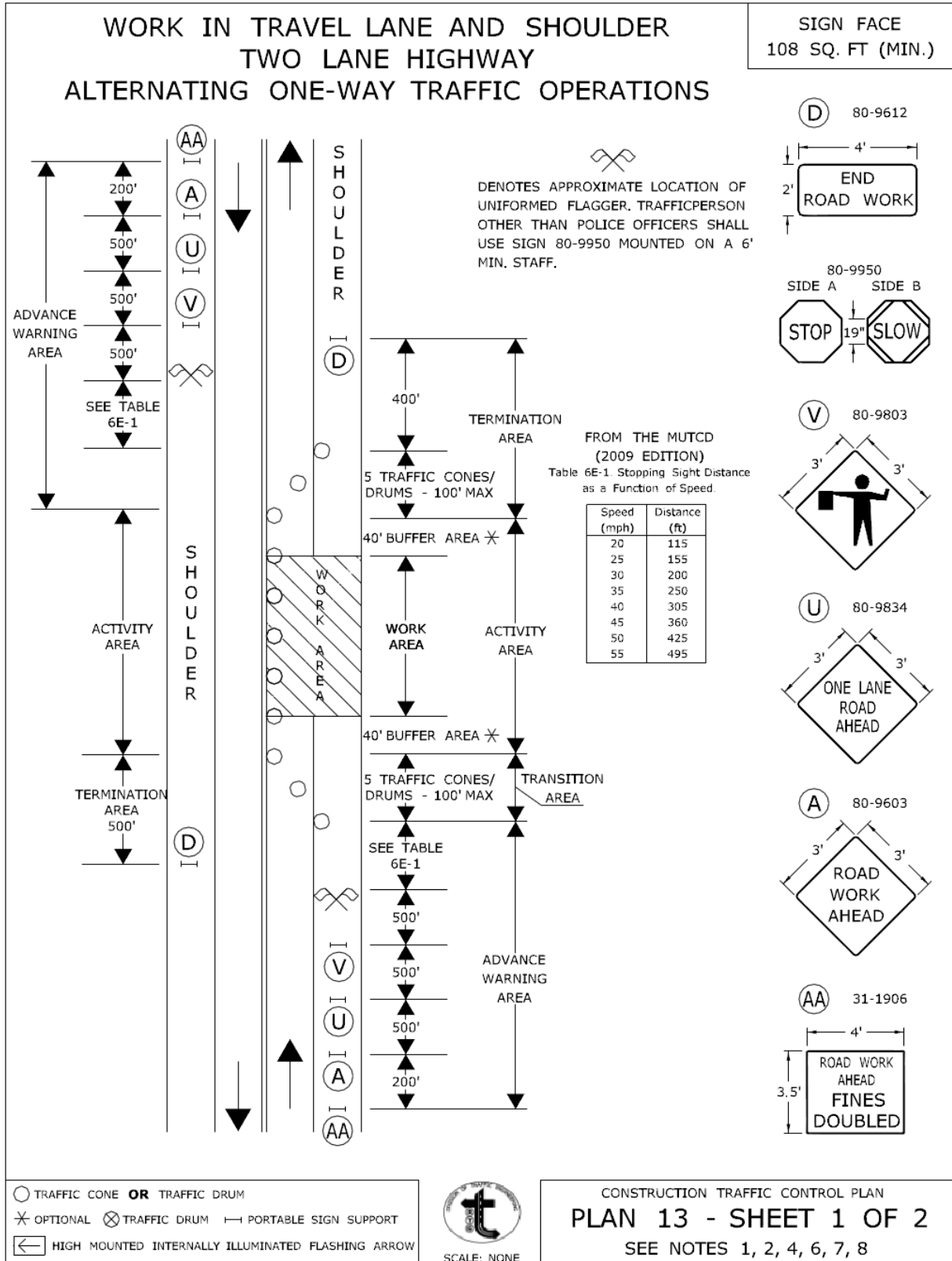
○ TRAFFIC CONE OR TRAFFIC DRUM
 ✖ OPTIONAL ✕ TRAFFIC DRUM — PORTABLE SIGN SUPPORT
 ◀ HIGH MOUNTED INTERNALLY ILLUMINATED FLASHING ARROW



CONSTRUCTION TRAFFIC CONTROL PLAN
PLAN 12
 SEE NOTES 1, 2, 3, 4, 5, 6, 7, 8


CONNECTICUT DEPARTMENT OF TRANSPORTATION
 BUREAU OF ENGINEERING & CONSTRUCTION

APPROVED *Charles S. Harlow* Charles S. Harlow
 2012.06.05 15:55:01-0400
 PRINCIPAL ENGINEER



CONNECTICUT DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING & CONSTRUCTION

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

APPROVED  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

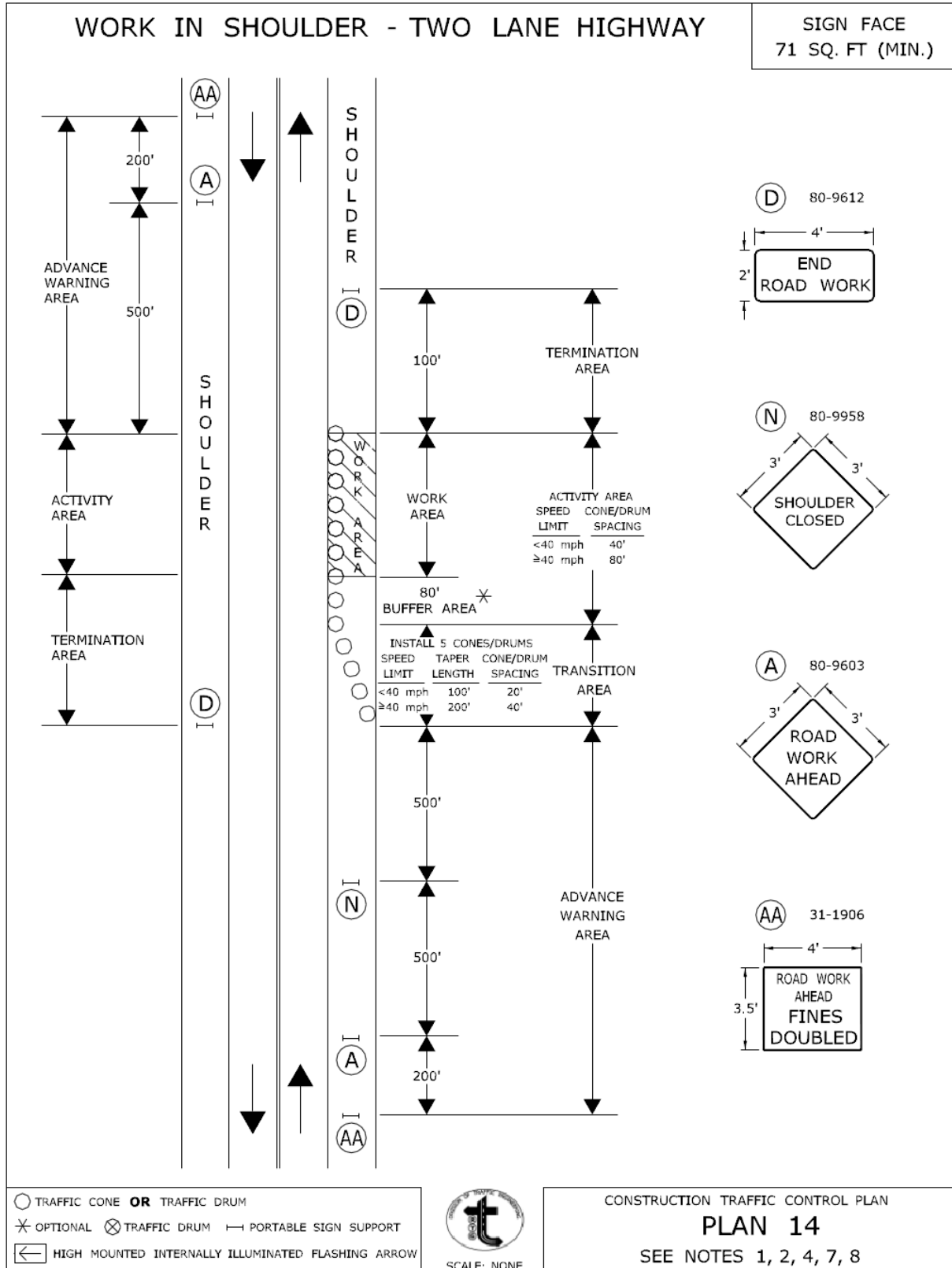
CONSTRUCTION TRAFFIC CONTROL PLAN
PLAN 13 - SHEET 2 OF 2
SEE NOTES 1, 2, 4, 6, 7, 8

CONNECTICUT DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING & CONSTRUCTION

APPROVED

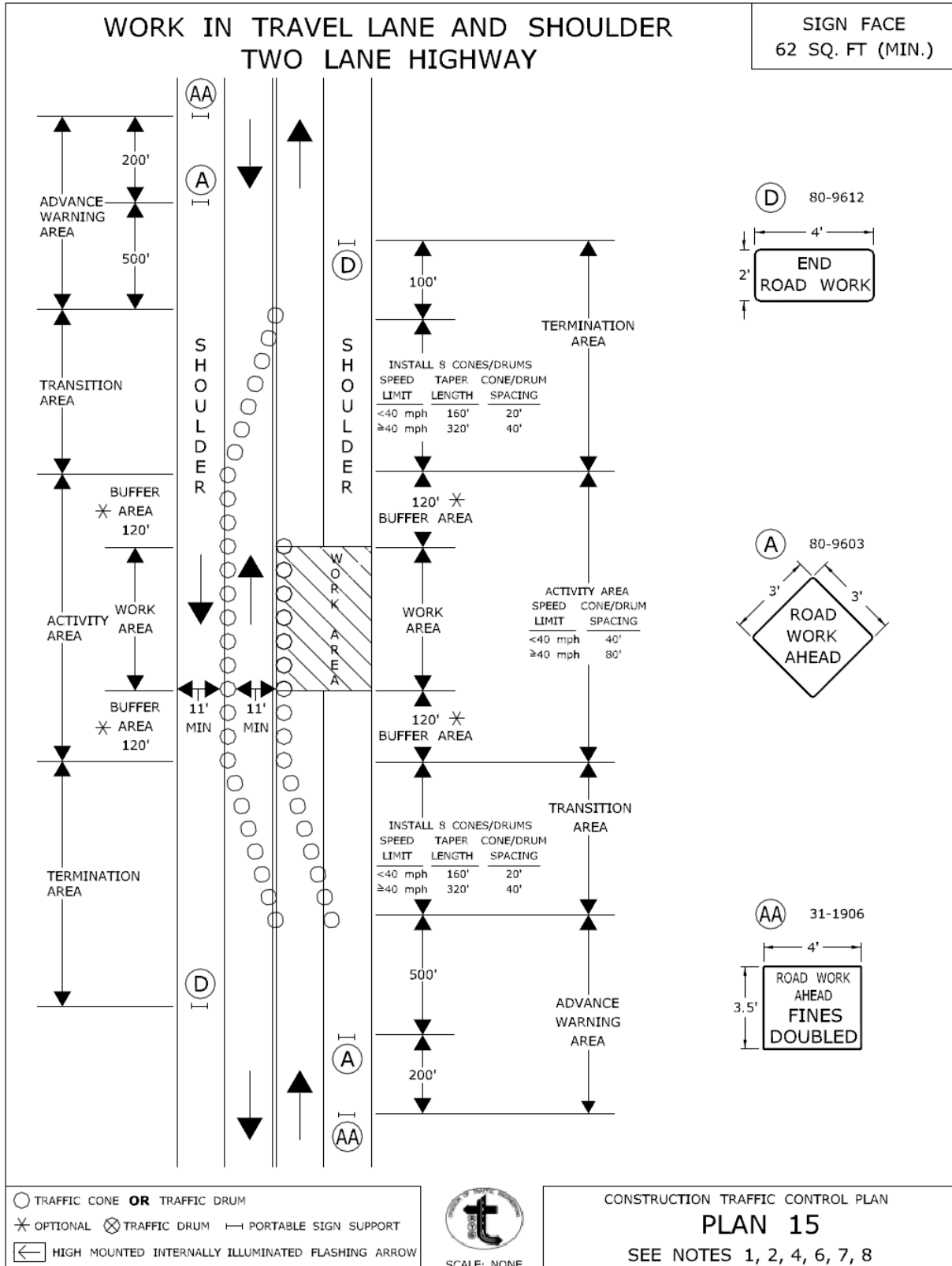
Charles S. Harlow
PRINCIPAL ENGINEER

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2012.06.05 15:55:45-04'00'



CONNECTICUT DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING & CONSTRUCTION

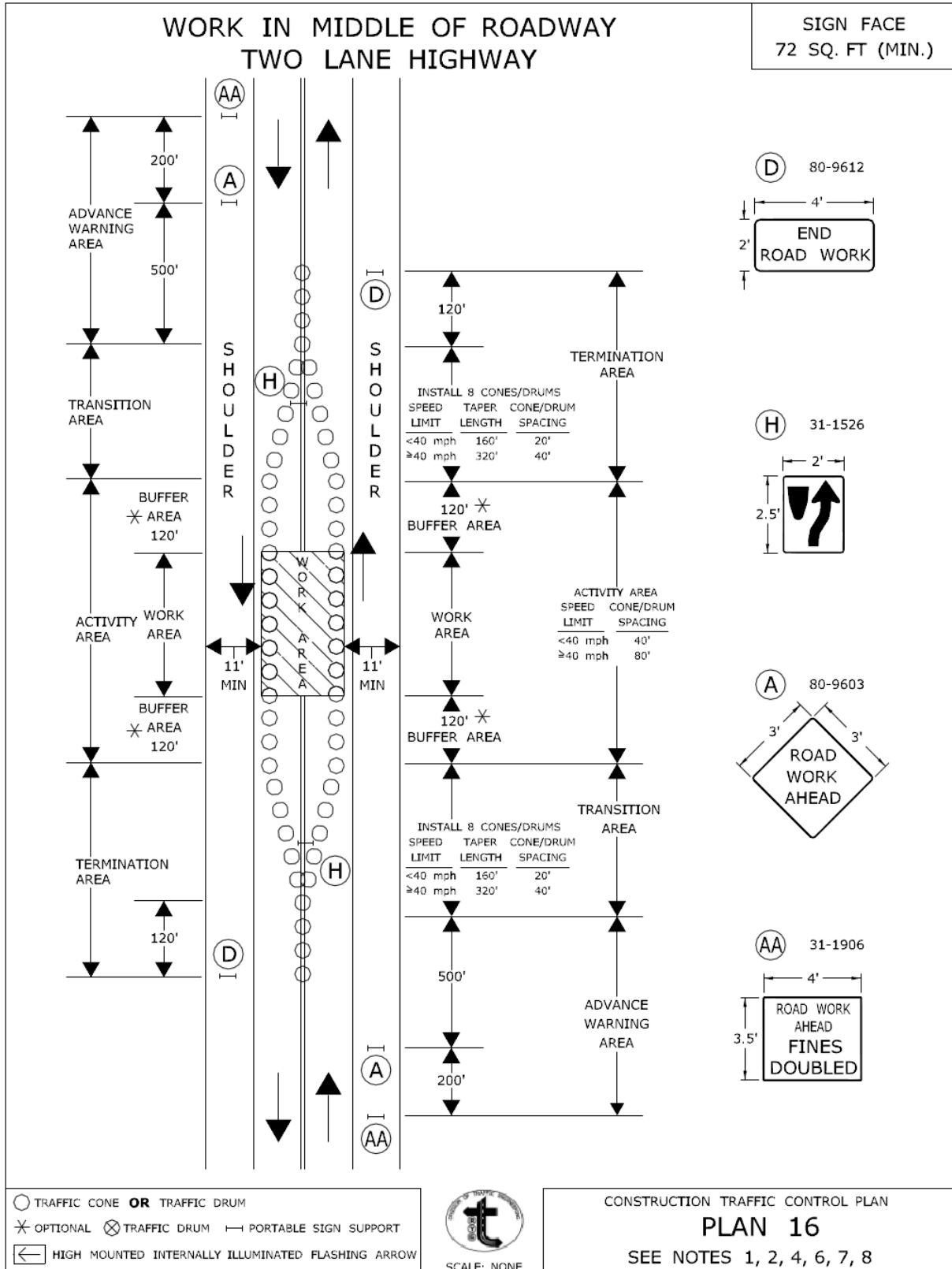
APPROVED *Charles S. Harlow* Charles S. Harlow
2012.06.05 15:56:09-04'00"
PRINCIPAL ENGINEER



CONNECTICUT DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING & CONSTRUCTION

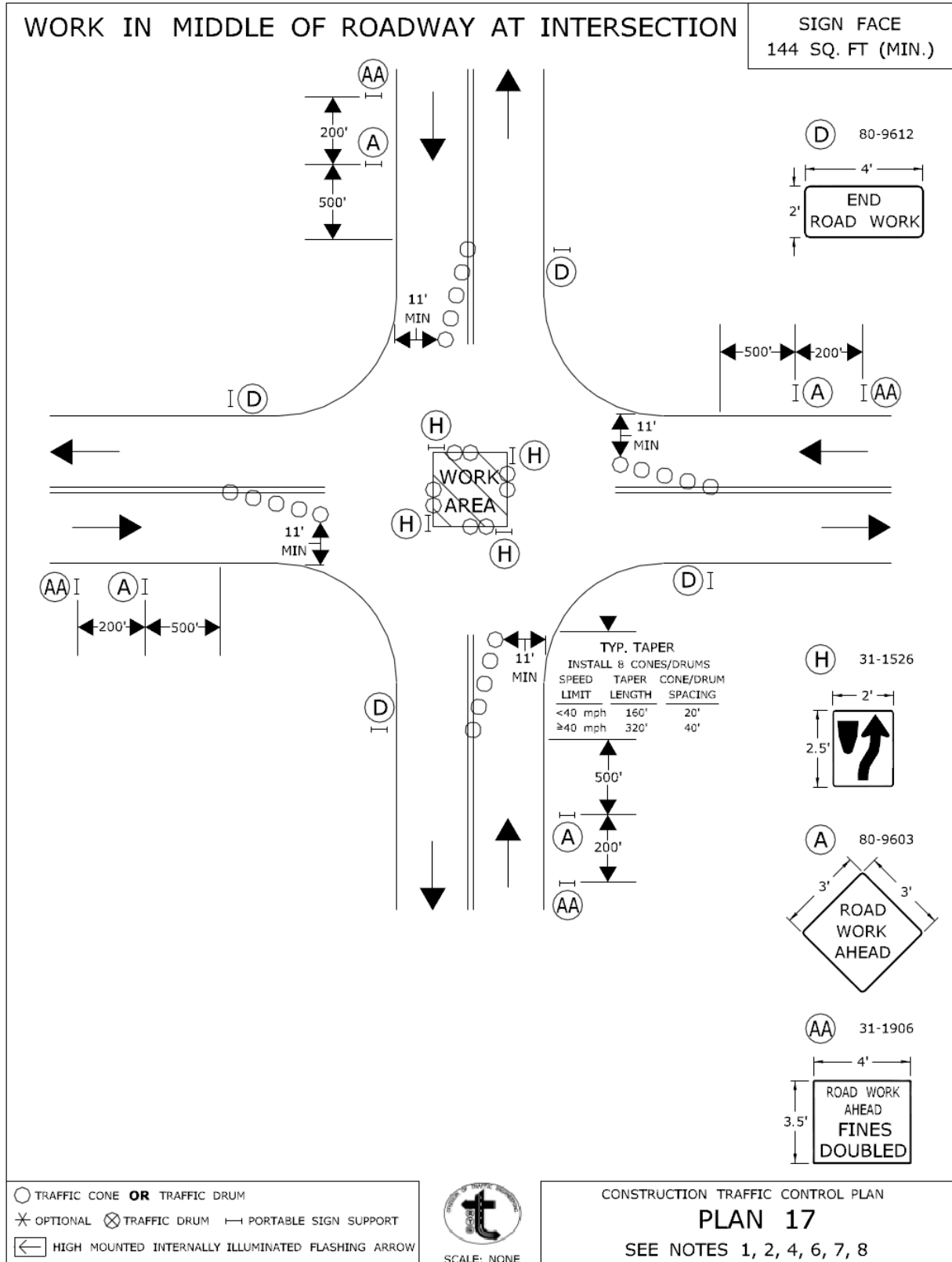
APPROVED

Charles S. Harlow
Charles S. Harlow
2012.06.05 15:56:29-04'00"
PRINCIPAL ENGINEER



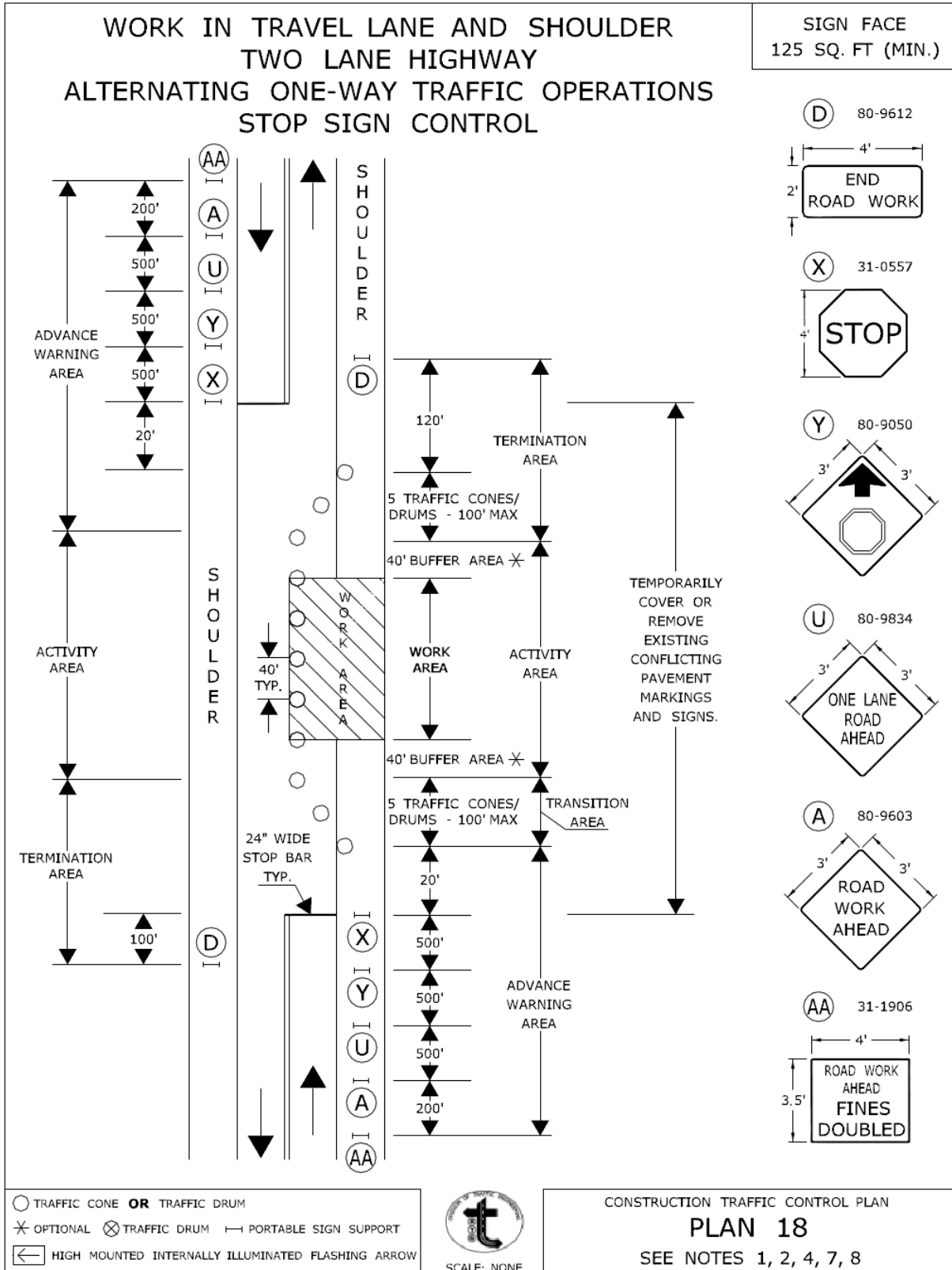
CONNECTICUT DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING & CONSTRUCTION

APPROVED *Charles S. Harlow* Charles S. Harlow
2012.06.05 15:56:51-04'00"
PRINCIPAL ENGINEER



CONNECTICUT DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING & CONSTRUCTION

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



ITEM # 1403501A RESET MANHOLE (SANITARY SEWER)

Work under this item shall conform to the applicable provisions of Section 5.07 of the Standard Specifications Form 817 amended as follows

Description:

Under this item shall be included the construction, installation, alteration, reconstruction or removal of existing or proposed manholes in conformity with the lines, grades, dimensions, and details shown on the plans, or as ordered, and in accordance with the provisions of these specifications for the various materials and work which constitute the completed structure.

Construction Methods:

Trench excavation, dewatering, and backfill for these items shall be according to the special provisions for EARTH TRENCH EXCAVATION included under Item #0205001A Special Provision

Frames, covers and tops which are to be reset shall be removed from their present beds, the walls or sides shall be rebuilt to conform to the requirements of the new construction and the tops, frames and covers reset, or the grates or covers may be raised by extensions of suitable height approved by the Engineer.

Method of Measurement:

Resetting tops, frames and covers will be measured as units. When resetting tops, frames and covers, there will be no measurement for excavation; cutting, removal and replacement of pavement; pervious material and backfill.

There will be no measurement or payment for trench excavation associated with this work.

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>
1403501A	RESET MANHOLE (SANITARY SEWER)	EA.


**ATTACHMENT A:
STATE WAGE RATES**

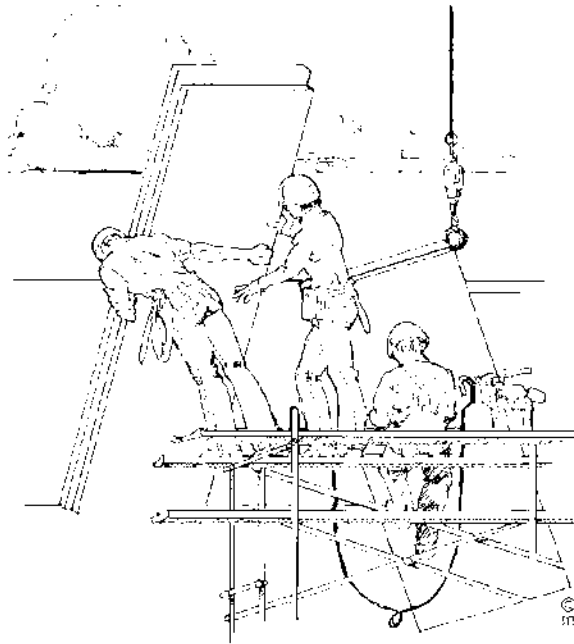
~NOTICE~

TO ALL CONTRACTING AGENCIES

Please be advised that Connecticut General Statutes Section 31-53, requires the contracting agency to certify to the Department of Labor, the total dollar amount of work to be done in connection with such public works project, regardless of whether such project consists of one or more contracts.

Please find the attached “Contracting Agency Certification Form” to be completed and returned to the Department of Labor, Wage and Workplace Standards Division, Public Contract Compliance Unit.

 Inquiries can be directed to (860)263-6543.



CONNECTICUT DEPARTMENT OF LABOR
WAGE AND WORKPLACE STANDARDS DIVISION
CONTRACT COMPLIANCE UNIT

CONTRACTING AGENCY CERTIFICATION FORM

I, _____, acting in my official capacity as _____,
authorized representative title

for _____, located at _____,
contracting agency address

do hereby certify that the total dollar amount of work to be done in connection with
_____, located at _____,
project name and number address

shall be \$_____, which includes all work, regardless of whether such project
consists of one or more contracts.

CONTRACTOR INFORMATION

Name: _____

Address: _____

Authorized Representative: _____

Approximate Starting Date: _____

Approximate Completion Date: _____

Signature

Date

Return To: Connecticut Department of Labor
Wage & Workplace Standards Division
Contract Compliance Unit
200 Folly Brook Blvd.
Wethersfield, CT 06109

Date Issued: _____

CONNECTICUT DEPARTMENT OF LABOR
WAGE AND WORKPLACE STANDARDS DIVISION

CONTRACTORS WAGE CERTIFICATION FORM
Construction Manager at Risk/General Contractor/Prime Contractor

I, _____ of _____
Officer, Owner, Authorized Rep. Company Name

do hereby certify that the _____
Company Name

Street

City

and all of its subcontractors will pay all workers on the

Project Name and Number

Street and City

the wages as listed in the schedule of prevailing rates required for such project (a copy of which is attached hereto).

Signed

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

Notary Public

Return to:
Connecticut Department of Labor
Wage & Workplace Standards Division
200 Folly Brook Blvd.
Wethersfield, CT 06109

Rate Schedule Issued (Date): _____

Informational Bulletin

THE 10-HOUR OSHA CONSTRUCTION SAFETY AND HEALTH COURSE

(applicable to public building contracts entered into *on or after July 1, 2007*, where the total cost of all work to be performed is at least \$100,000)

- (1) This requirement was created by Public Act No. 06-175, which is codified in Section 31-53b of the Connecticut General Statutes (pertaining to the prevailing wage statutes);
- (2) The course is required for public building construction contracts (projects funded in whole or in part by the state or any political subdivision of the state) entered into on or after July 1, 2007;
- (3) It is required of private employees (not state or municipal employees) and apprentices who perform manual labor for a general contractor or subcontractor on a public building project where the total cost of all work to be performed is at least \$100,000;
- (4) The ten-hour construction course pertains to the ten-hour Outreach Course conducted in accordance with federal OSHA Training Institute standards, and, for telecommunications workers, a ten-hour training course conducted in accordance with federal OSHA standard, 29 CFR 1910.268;
- (5) The internet website for the federal OSHA Training Institute is http://www.osha.gov/fso/ote/training/edcenters/fact_sheet.html;
- (6) The statutory language leaves it to the contractor and its employees to determine who pays for the cost of the ten-hour Outreach Course;
- (7) Within 30 days of receiving a contract award, a general contractor must furnish proof to the Labor Commissioner that all employees and apprentices performing manual labor on the project will have completed such a course;
- (8) Proof of completion may be demonstrated through either: (a) the presentation of a *bona fide* student course completion card issued by the federal OSHA Training Institute; *or* (2) the presentation of documentation provided to an employee by a trainer certified by the Institute pending the actual issuance of the completion card;
- (9) Any card with an issuance date more than 5 years prior to the commencement date of the construction project shall not constitute proof of compliance;

- (10) Each employer shall affix a copy of the construction safety course completion card to the certified payroll submitted to the contracting agency in accordance with Conn. Gen. Stat. § 31-53(f) on which such employee's name first appears;
- (11) Any employee found to be in non-compliance shall be subject to removal from the worksite if such employee does not provide satisfactory proof of course completion to the Labor Commissioner by the fifteenth day after the date the employee is determined to be in noncompliance;
- (12) Any such employee who is determined to be in noncompliance may continue to work on a public building construction project for a maximum of fourteen consecutive calendar days while bringing his or her status into compliance;
- (13) The Labor Commissioner may make complaint to the prosecuting authorities regarding any employer or agent of the employer, or officer or agent of the corporation who files a false certified payroll with respect to the status of an employee who is performing manual labor on a public building construction project;
- (14) The statute provides the minimum standards required for the completion of a safety course by manual laborers on public construction contracts; any contractor can exceed these minimum requirements; and
- (15) Regulations clarifying the statute are currently in the regulatory process, and shall be posted on the CTDOL website as soon as they are adopted in final form.
- (16) Any questions regarding this statute may be directed to the Wage and Workplace Standards Division of the Connecticut Labor Department via the internet website of <http://www.ctdol.state.ct.us/wgwkstnd/wgemenu.htm>; or by telephone at (860)263-6790.

THE ABOVE INFORMATION IS PROVIDED EXCLUSIVELY AS AN EDUCATIONAL RESOURCE, AND IS NOT INTENDED AS A SUBSTITUTE FOR LEGAL INTERPRETATIONS WHICH MAY ULTIMATELY ARISE CONCERNING THE CONSTRUCTION OF THE STATUTE OR THE REGULATIONS.

November 29, 2006

Notice
To All Mason Contractors and Interested Parties
Regarding Construction Pursuant to Section 31-53 of the
Connecticut General Statutes (Prevailing Wage)

The Connecticut Labor Department Wage and Workplace Standards Division is empowered to enforce the prevailing wage rates on projects covered by the above referenced statute.

Over the past few years the Division has withheld enforcement of the rate in effect for workers who operate a forklift on a prevailing wage rate project due to a potential jurisdictional dispute.

The rate listed in the schedules and in our Occupational Bulletin (see enclosed) has been as follows:

Forklift Operator:

- **Laborers (Group 4) Mason Tenders** - operates forklift solely to assist a mason to a maximum height of nine feet only.
- **Power Equipment Operator (Group 9)** - operates forklift to assist any trade and to assist a mason to a height over nine feet.

The U.S. Labor Department conducted a survey of rates in Connecticut but it has not been published and the rate in effect remains as outlined in the above Occupational Bulletin.

Since this is a classification matter and not one of jurisdiction, effective January 1, 2007 the Connecticut Labor Department will enforce the rate on each schedule in accordance with our statutory authority.

Your cooperation in filing appropriate and accurate certified payrolls is appreciated.

***FRINGE BENEFITS EXPLANATION (P):**

Bona fide benefits paid to approved plans, funds or programs, except those required by Federal or State Law (unemployment tax, worker’s compensation, income taxes, etc.).

Please specify the type of benefits provided:

- 1) Medical or hospital care _____ 4) Disability _____
- 2) Pension or retirement _____ 5) Vacation, holiday _____
- 3) Life Insurance _____ 6) Other (please specify) _____

CERTIFIED STATEMENT OF COMPLIANCE

For the week ending date of _____,

I, _____ of _____, (hereafter known as Employer) in my capacity as _____ (title) do hereby certify and state:

Section A:

1. All persons employed on said project have been paid the full weekly wages earned by them during the week in accordance with Connecticut General Statutes, section 31-53, as amended. Further, I hereby certify and state the following:

- a) The records submitted are true and accurate;
- b) The rate of wages paid to each mechanic, laborer or workman and the amount of payment or contributions paid or payable on behalf of each such person to any employee welfare fund, as defined in Connecticut General Statutes, section 31-53 (h), are not less than the prevailing rate of wages and the amount of payment or contributions paid or payable on behalf of each such person to any employee welfare fund, as determined by the Labor Commissioner pursuant to subsection Connecticut General Statutes, section 31-53 (d), and said wages and benefits are not less than those which may also be required by contract;
- c) The Employer has complied with all of the provisions in Connecticut General Statutes, section 31-53 (and Section 31-54 if applicable for state highway construction);
- d) Each such person is covered by a worker’s compensation insurance policy for the duration of his employment which proof of coverage has been provided to the contracting agency;
- e) The Employer does not receive kickbacks, which means any money, fee, commission, credit, gift, gratuity, thing of value, or compensation of any kind which is provided directly or indirectly, to any prime contractor, prime contractor employee, subcontractor, or subcontractor employee for the purpose of improperly obtaining or rewarding favorable treatment in connection with a prime contract or in connection with a prime contractor in connection with a subcontractor relating to a prime contractor; and
- f) The Employer is aware that filing a certified payroll which he knows to be false is a class D felony for which the employer may be fined up to five thousand dollars, imprisoned for up to five years or both.

2. OSHA~The employer shall affix a copy of the construction safety course, program or training completion document to the certified payroll required to be submitted to the contracting agency for this project on which such persons name first appears.

_____ (Signature) _____ (Title) _____ Submitted on (Date)

Sec. 31-53b. Construction safety and health course. New miner training program. Proof of completion required for mechanics, laborers and workers on public works projects. Enforcement. Regulations. Exceptions. (a) Each contract for a public works project entered into on or after July 1, 2009, by the state or any of its agents, or by any political subdivision of the state or any of its agents, described in subsection (g) of section 31-53, shall contain a provision requiring that each contractor furnish proof with the weekly certified payroll form for the first week each employee begins work on such project that any person performing the work of a mechanic, laborer or worker pursuant to the classifications of labor under section 31-53 on such public works project, pursuant to such contract, has 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, has completed a new miner training program approved by the Federal Mine Safety and Health Administration in accordance with 30 CFR 48 or, in the case of telecommunications employees, has completed at least ten hours of training in accordance with 29 CFR 1910.268.

(b) Any person required to complete a course or program under subsection (a) of this section who has not completed the course or program shall be subject to removal from the worksite if the person does not provide documentation of having completed such course or program by the fifteenth day after the date the person is found to be in noncompliance. The Labor Commissioner or said commissioner's designee shall enforce this section.

(c) Not later than January 1, 2009, the Labor Commissioner shall adopt regulations, in accordance with the provisions of chapter 54, to implement the provisions of subsections (a) and (b) of this section. Such regulations shall require that the ten-hour construction safety and health courses required under subsection (a) of this section be conducted in accordance with federal Occupational Safety and Health Administration Training Institute standards, or in accordance with Federal Mine Safety and Health Administration Standards or in accordance with 29 CFR 1910.268, as appropriate. The Labor Commissioner shall accept as sufficient proof of compliance with the provisions of subsection (a) or (b) of this section a student course completion card issued by the federal Occupational Safety and Health Administration Training Institute, or such other proof of compliance said commissioner deems appropriate, dated no earlier than five years before the commencement date of such public works project.

(d) This section shall not apply to employees of public service companies, as defined in section 16-1, or drivers of commercial motor vehicles driving the vehicle on the public works project and delivering or picking up cargo from public works projects provided they perform no labor relating to the project other than the loading and unloading of their cargo.

(P.A. 06-175, S. 1; P.A. 08-83, S. 1.)

History: P.A. 08-83 amended Subsec. (a) by making provisions applicable to public works project contracts entered into on or after July 1, 2009, replacing provision re total cost of work with reference to Sec. 31-53(g), requiring proof in certified payroll form that new mechanic, laborer or worker has completed a 10-hour or more construction safety course and adding provision re new miner training program, amended Subsec. (b) by substituting "person" for "employee" and adding "or program", amended Subsec. (c) by adding "or in accordance with Federal Mine Safety and Health Administration Standards" and setting new deadline of January 1, 2009, deleted former Subsec. (d) re "public building", added new Subsec. (d) re exemptions for public service company employees and delivery drivers who perform no labor other than delivery and made conforming and technical changes, effective January 1, 2009.

STATUTE 31-55a

- SPECIAL NOTICE -

To: All State and Political Subdivisions, Their Agents, and Contractors

Connecticut General Statute 31-55a - Annual adjustments to wage rates by contractors doing state work.

Each contractor that is awarded a contract on or after October 1, 2002, for (1) the construction of a state highway or bridge that falls under the provisions of section 31-54 of the general statutes, or (2) the construction, remodeling, refinishing, refurbishing, rehabilitation, alteration or repair of any public works project that falls under the provisions of section 31-53 of the general statutes shall contact the Labor Commissioner on or before July first of each year, for the duration of such contract, to ascertain the prevailing rate of wages on an hourly basis and the amount of payment or contributions paid or payable on behalf of each mechanic, laborer or worker employed upon the work contracted to be done, and shall make any necessary adjustments to such prevailing rate of wages and such payment or contributions paid or payable on behalf of each such employee, effective each July first.

- The prevailing wage rates applicable to any contract or subcontract awarded on or after October 1, 2002 are subject to annual adjustments each July 1st for the duration of any project which was originally advertised for bids on or after October 1, 2002.
- Each contractor affected by the above requirement shall pay the annual adjusted prevailing wage rate that is in effect each July 1st, as posted by the Department of Labor.
- It is the **contractor's** responsibility to obtain the annual adjusted prevailing wage rate increases directly from the Department of Labor's Web Site. The annual adjustments will be posted on the Department of Labor Web page: www.ctdol.state.ct.us. For those without internet access, please contact the division listed below.
- The Department of Labor will continue to issue the initial prevailing wage rate schedule to the Contracting Agency for the project. All subsequent annual adjustments will be posted on our Web Site for contractor access.

Any questions should be directed to the Contract Compliance Unit, Wage and Workplace Standards Division, Connecticut Department of Labor, 200 Folly Brook Blvd., Wethersfield, CT 06109 at (860)263-6790.

**Minimum Rates and Classifications for
Heavy/Highway Construction**

ID# 20-10318

**Connecticut Department of Labor
Wage and Workplace Standards**

By virtue of the authority vested in the Labor Commissioner under provisions of Section 31-53 of the General Statutes of Connecticut, as amended, the following are declared to be the prevailing rates and welfare payments and will apply only where the contract is advertised for bid within 20 days of the date on which the rates are established. Any contractor or subcontractor not obligated by agreement to pay

Project Number: PW-1903

Project Town: Glastonbury

State#: #GL-2020-17

FAP#: PW-1903

Project: Sidewalk Improvements

CLASSIFICATION	Hourly	Benefits
1) Boilermaker	33.79	34% + 8.96
1a) Bricklayer, Cement Masons, Cement Finishers, Plasterers, Stone Masons	35.72	33.16
2) Carpenters, Piledrivermen	33.53	25.66
2a) Diver Tenders	33.53	25.66
3) Divers	41.99	25.66
03a) Millwrights	34.94	26.19
4) Painters: (Bridge Construction) Brush, Roller, Blasting (Sand, Water, etc.), Spray	51.0	21.80
4a) Painters: Brush and Roller	34.62	21.80
4b) Painters: Spray Only	36.62	21.80
4c) Painters: Steel Only	35.62	21.80
4d) Painters: Blast and Spray	37.62	21.80
4e) Painters: Tanks, Tower and Swing	36.62	21.80

Project: Sidewalk Improvements

5) Electrician (Trade License required: E-1,2 L-5,6 C-5,6 T-1,2 L-1,2 V-1,2,7,8,9)	40.0	27.67+3% of gross wage
6) Ironworkers: Ornamental, Reinforcing, Structural, and Precast Concrete Erection	36.67	35.77 + a
7) Plumbers (Trade License required: (P-1,2,6,7,8,9 J-1,2,3,4 SP-1,2) and Pipefitters (Including HVAC Work) (Trade License required: S-1,2,3,4,5,6,7,8 B-1,2,3,4 D-1,2,3,4 G-1, G-2, G-8, G-9)	43.62	32.06
----LABORERS-----		
8) Group 1: Laborer (Unskilled), Common or General, acetylene burner, concrete specialist	30.75	20.84
9) Group 2: Chain saw operators, fence and guard rail erectors, pneumatic tool operators, powdermen	31.0	20.84
10) Group 3: Pipelayers	31.25	20.84
11) Group 4: Jackhammer/Pavement breaker (handheld); mason tenders (cement/concrete), catch basin builders, asphalt rakers, air track operators, block paver, curb setter and forklift operators	31.25	20.84
12) Group 5: Toxic waste removal (non-mechanical systems)	32.75	20.84
13) Group 6: Blasters	32.5	20.84
Group 7: Asbestos/lead removal, non-mechanical systems (does not include leaded joint pipe)	31.75	20.84
Group 8: Traffic control signalmen	18.0	20.84
Group 9: Hydraulic Drills	29.3	18.90
----LABORERS (TUNNEL CONSTRUCTION, FREE AIR). Shield Drive and Liner Plate Tunnels in Free Air.----		
13a) Miners, Motormen, Mucking Machine Operators, Nozzle Men, Grout Men, Shaft & Tunnel Steel & Rodmen, Shield & Erector, Arm Operator, Cable Tenders	32.98	20.84 + a
13b) Brakemen, Trackmen	32.01	20.84 + a
----CLEANING, CONCRETE AND CAULKING TUNNEL----		

As of: February 21, 2020

14) Concrete Workers, Form Movers, and Strippers	32.01	20.84 + a
15) Form Erectors	32.34	20.84 + a
----ROCK SHAFT LINING, CONCRETE, LINING OF SAME AND TUNNEL IN FREE AIR:----		
16) Brakemen, Trackmen, Tunnel Laborers, Shaft Laborers	32.01	20.84 + a
17) Laborers Topside, Cage Tenders, Bellman	31.9	20.84 + a
18) Miners	32.98	20.84 + a
----TUNNELS, CAISSON AND CYLINDER WORK IN COMPRESSED AIR: ----		
18a) Blaster	39.47	20.84 + a
19) Brakemen, Trackmen, Groutman, Laborers, Outside Lock Tender, Gauge Tenders	39.27	20.84 + a
20) Change House Attendants, Powder Watchmen, Top on Iron Bolts	37.29	20.84 + a
21) Mucking Machine Operator	40.06	20.84 + a
----TRUCK DRIVERS----(*see note below)		
Two axle trucks	29.51	24.52 + a
Three axle trucks; two axle ready mix	29.62	24.52 + a
Three axle ready mix	29.67	24.52 + a
Four axle trucks, heavy duty trailer (up to 40 tons)	29.72	24.52 + a
Four axle ready-mix	29.77	24.52 + a
Heavy duty trailer (40 tons and over)	29.98	24.52 + a

Project: Sidewalk Improvements

Specialized earth moving equipment other than conventional type on-the road trucks and semi-trailer (including Euclids)	29.77	24.52 + a
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----POWER EQUIPMENT OPERATORS----

Group 1: Crane handling or erecting structural steel or stone, hoisting engineer (2 drums or over), front end loader (7 cubic yards or over), Work Boat 26 ft. & Over, Tunnel Boring Machines. (Trade License Required)	40.97	24.80 + a
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Group 2: Cranes (100 ton rate capacity and over); Excavator over 2 cubic yards; Piledriver (\$3.00 premium when operator controls hammer); Bauer Drill/Caisson. (Trade License Required)	40.64	24.80 + a
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Group 3: Excavator/Backhoe under 2 cubic yards; Cranes (under 100 ton rated capacity), Gradall; Master Mechanic; Hoisting Engineer (all types of equipment where a drum and cable are used to hoist or drag material regardless of motive power of operation), Rubber Tire Excavator (Drott-1085 or similar); Grader Operator; Bulldozer Fine Grade (slopes, shaping, laser or GPS, etc.). (Trade License Required)	39.88	24.80 + a
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Group 4: Trenching Machines; Lighter Derrick; Concrete Finishing Machine; CMI Machine or Similar; Koehring Loader (Skooper)	39.48	24.80 + a
-----------------------------------------------------------------------------------------------------------------------------	-------	-----------

Group 5: Specialty Railroad Equipment; Asphalt Paver; Asphalt Spreader; Asphalt Reclaiming Machine; Line Grinder; Concrete Pumps; Drills with Self Contained Power Units; Boring Machine; Post Hole Digger; Auger; Pounder; Well Digger; Milling Machine (over 24	38.87	24.80 + a
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Group 5 continued: Side Boom; Combination Hoe and Loader; Directional Driller.	38.87	24.80 + a
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Group 6: Front End Loader (3 up to 7 cubic yards); Bulldozer (rough grade dozer).	38.55	24.80 + a
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Group 7: Asphalt Roller; Concrete Saws and Cutters (ride on types); Vermeer Concrete Cutter; Stump Grinder; Scraper; Snooper; Skidder; Milling Machine (24	38.2	24.80 + a
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Group 8: Mechanic, Grease Truck Operator, Hydroblaster, Barrier Mover, Power Stone Spreader; Welder; Work Boat under 26 ft.; Transfer Machine.	37.79	24.80 + a
------------------------------------------------------------------------------------------------------------------------------------------------	-------	-----------

Group 9: Front End Loader (under 3 cubic yards), Skid Steer Loader regardless of attachments (Bobcat or Similar); Fork Lift, Power Chipper; Landscape Equipment (including hydroseeder).	37.34	24.80 + a
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Group 10: Vibratory Hammer, Ice Machine, Diesel and Air Hammer, etc.	35.24	24.80 + a
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Group 11: Conveyor, Earth Roller; Power Pavement Breaker (whiphammer), Robot Demolition Equipment.	35.24	24.80 + a
----------------------------------------------------------------------------------------------------	-------	-----------

As of: February 21, 2020

Project: Sidewalk Improvements

Group 12: Wellpoint Operator.	35.18	24.80 + a
Group 13: Compressor Battery Operator.	34.58	24.80 + a
Group 14: Elevator Operator; Tow Motor Operator (Solid Tire No Rough Terrain).	33.41	24.80 + a
Group 15: Generator Operator; Compressor Operator; Pump Operator; Welding Machine Operator; Heater Operator.	32.99	24.80 + a
Group 16: Maintenance Engineer/Oiler	32.32	24.80 + a
Group 17: Portable asphalt plant operator; portable crusher plant operator; portable concrete plant operator.	36.76	24.80 + a
Group 18: Power Safety Boat; Vacuum Truck; Zim Mixer; Sweeper; (minimum for any job requiring CDL license).	34.26	24.80 + a

**NOTE: SEE BELOW

----LINE CONSTRUCTION----(Railroad Construction and Maintenance)---

-

20) Lineman, Cable Splicer, Technician	48.19	6.5% + 22.00
21) Heavy Equipment Operator	42.26	6.5% + 19.88
22) Equipment Operator, Tractor Trailer Driver, Material Men	40.96	6.5% + 19.21
23) Driver Groundmen	26.5	6.5% + 9.00
23a) Truck Driver	40.96	6.5% + 17.76

----LINE CONSTRUCTION----

24) Driver Groundmen	30.92	6.5% + 9.70
25) Groundmen	22.67	6.5% + 6.20
26) Heavy Equipment Operators	37.1	6.5% + 10.70

As of: February 21, 2020

Project: Sidewalk Improvements

27) Linemen, Cable Splicers, Dynamite Men	41.22	6.5% + 12.20
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28) Material Men, Tractor Trailer Drivers, Equipment Operators	35.04	6.5% + 10.45
----------------------------------------------------------------	-------	--------------

As of: February 21, 2020

Project: Sidewalk Improvements

Welders: Rate for craft to which welding is incidental.

*Note: Hazardous waste removal work receives additional \$1.25 per hour for truck drivers.

ALL Cranes: When crane operator is operating equipment that requires a fully licensed crane operator to operate he receives an extra \$4.00 premium in addition to the hourly wage rate and benefit contributions:

- 1) Crane handling or erecting structural steel or stone; hoisting engineer (2 drums or over)**
- 2) Cranes (100 ton rate capacity and over) Bauer Drill/Caisson**

Crane with 150 ft. boom (including jib) - \$1.50 extra

Crane with 200 ft. boom (including jib) - \$2.50 extra

Crane with 250 ft. boom (including jib) - \$5.00 extra

Crane with 300 ft. boom (including jib) - \$7.00 extra

Crane with 400 ft. boom (including jib) - \$10.00 extra

All classifications that indicate a percentage of the fringe benefits must be calculated at the percentage rate times the "base hourly rate".

Apprentices duly registered under the Commissioner of Labor's regulations on "Work Training Standards for Apprenticeship and Training Programs" Section 31-51-d-1 to 12, are allowed to be paid the appropriate percentage of the prevailing journeymen hourly base and the full fringe benefit rate, providing the work

--Connecticut General Statute Section 31-55a: Annual Adjustments to wage rates by contractors doing

The Prevailing wage rates applicable to this project are subject to annual adjustments each July 1st for the duration of the project.

Each contractor shall pay the annual adjusted prevailing wage rate that is in effect each July 1st, as posted by the Department of Labor.

It is the contractor's responsibility to obtain the annual adjusted prevailing wage rate increases directly from the Department of Labor's website.

The annual adjustments will be posted on the Department of Labor's Web page: www.ct.gov/dol. For those without internet access, please contact the division listed below.

The Department of Labor will continue to issue the initial prevailing wage rate schedule to the Contracting Agency for the project.

All subsequent annual adjustments will be posted on our Web Site for contractor access.

Contracting Agencies are under no obligation pursuant to State labor law to pay any increase due to the annual adjustment provision.

Effective October 1, 2005 - Public Act 05-50: any person performing the work of any mechanic, laborer, or worker shall be paid prevailing wage

All Person who perform work ON SITE must be paid prevailing wage for the appropriate mechanic, laborer, or worker classification.

All certified payrolls must list the hours worked and wages paid to All Persons who perform work ON SITE regardless of their ownership i.e.: (Owners, Corporate Officers, LLC Members, Independent Contractors, et. al)

Reporting and payment of wages is required regardless of any contractual relationship alleged to exist between the contractor and such person.

As of: February 21, 2020

Project: Sidewalk Improvements

~~Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clause (29 CFR 5.5 (a) (1) (ii)).

Please direct any questions which you may have pertaining to classification of work and payment of prevailing wages to the Wage and Workplace Standards Division, telephone (860)263-6790.

As of: February 21, 2020

**ATTACHMENT B:
TOWN OF EAST HARTFORD PERMIT REQUIREMENTS**

LICENSE AND PERMIT REQUIREMENTS

For all work involving excavation in the Town right-of-way or on a Town-owned property, a license is required before a permit can be issued by the Engineering Division. Required documents for a license include:

1) Proof of Insurance

- a) The Certificate must contain the following language in the comments section: “The Town of East Hartford, its officials, employees, volunteers and boards are named as additional insured’s with respect to all liability arising out of the permit activities of the business”.
- b) The Certificate must have at least the following liabilities limits:
 - i) Commercial General Liability: \$1,000,000/\$2,000,000
 - ii) Business Auto Liability: \$1,000,000 combined single limit
 - iii) Worker’s Compensation: As required by State Law [Currently \$500,000/\$500,000/\$500,000]
- c) The cancellation clause must not be less than 30 days.
- d) Insurance certificates may be sent via email.
- e) Insurance review by the Town’s Risk Manager is normally complete in 1-2 business days.

2) Hold Harmless Agreement

- i) A *Hold Harmless Agreement* must be on file with the Engineering Division. (Town form supplied)

3) Bonds (Drainlayer and/or Driveway Curb & Walk)

- a) Renewal certificates are not accepted.
- b) Bonds must be on Town’s Bond Form. Original form must be filed with the Engineering Division.
- c) See the document *Instructions for Filling Out a Town of East Hartford Bond*.
- d) The bonding company must be approved to do business in the State of Connecticut.
- e) Bond review by the Town’s Corporation Counsel Office is normally complete in 1-2 business days.

The fee for an annual license is \$35.00. All licenses expire on December 31st of the year issued.

Once a license is issued, a *Permit Application Form* must be submitted. For all permits:

- a. A “Call Before You Dig” (DigSafe) number for the project.
- b. All contractors working for a utility company must provide a work order number

Permit Fee Schedule: Driveway and Sidewalk Permits - \$50.00/per location
Excavation Permits - \$50.00/per permit

Note: Any sidewalk work performed in a State road right-of-way requires a permit from the Town in addition to the DOT Encroachment Permit.

Updated 18 April 2019



Town of East Hartford Department of Public Works Engineering Division

PERMIT APPLICATION

PERMIT TYPE:

Fee \$50.00: Driveway Sidewalk Excavation
Fee \$35.00: Temporary Obstruction Road Closure/Detour

ALL WORK REQUESTED BY THIS APPLICATION SHALL BE AUTHORIZED BY THE TOWN OF EAST HARTFORD PRIOR TO COMMENCEMENT AND SHALL BE CARRIED OUT ACCORDING TO THE REGULATIONS AND BY-LAWS OF THE TOWN OF EAST HARTFORD.

ON SITE CONTACT MUST CONTACT ENGINEERING DEPARTMENT AT 860-291-7380 PRIOR TO WORK START

WORK LOCATION INFORMATION

1. Location of Work: _____ End Address: _____
2. Call Before You Dig # _____ Work Order # _____
3. Start Date: _____ End Date: _____ Extended Work Date: _____

APPLICANT INFORMATION

4. License Number: _____
5. Company Name: _____
6. On Site Contact Name: _____ Cell Phone # _____

DESCRIPTION OF WORK

7. **Description of Work:** (Include appropriate dimensions, names of nearest cross streets, and any other necessary details sketch on back of form if necessary.)

8. Attach all necessary drawings, work orders, approvals, etc.

APPLICANT SIGNATURE: _____ TITLE: _____

PRINT NAME: _____

DATE: _____

WORK AREA SKETCH

(OFFICE USE ONLY)

CURRENT BOND: Driveway, Curb, & Walk Layer's Drain Layer's

CURRENT CERTIFICATE OF INSURANCE:

CURRENT LICENSE & HOLD HARMLESS AGREEMENT:

Driveway apron replacement: Yes No

8" reinforced concrete sidewalk required: Yes No

Inland Wetlands / Buffer Zone _____

Site Review _____

Zoning Approval (Inspections & Permits) _____

This application is hereby: APPROVED DISAPPROVED APPROVED W/CONDITIONS

Permit Number: _____

BY: _____ **DATE:** _____ **EXP. DATE:** _____

CONDITIONS: _____

INSTRUCTIONS FOR FILLING OUT A TOWN OF EAST HARTFORD BOND

TYPE OR WRITE IN:

- (1) the **full legal name of the contractor.**
- (2) the contractor's **form of organization.**(ex., Corporation, Limited Liability Company, Partnership, Sole Proprietor)
- (3) the **name of the person** who is authorized by the contractor to sign as principal on page 2.
- (4) the **correct title** of the person named in (3). (ex., Corporations [President, Vice President, Secretary, Treasurer], LLC [Member or Managing Member], Partnership [Partner, General Partner].
- (5) the **name of the bonding (insurance) company.** (The full name of the underwriting company must appear; not the name of the agent, agency or broker.)
- (6) the **name of the authorized Agent** at the bonding company who will be signing the Bond on page 2 under "SURETY". See (14a,b,c).
- (7a,b,c) the **beginning date** of the Bond's term of coverage.
- (8a,b,c) the **ending date** of the Bond's term of coverage.
- (9) the **full legal name of the contractor** - same as (1).
- (10) the **full legal name of the contractor** - same as (1).
- (11) the **city and state** where the Bond was produced.
- (12a,b,c) the **day, month** and **year** the Bond was produced.

THEN:

- (13a,b,c) The Principal - same as (3) - must fill in **Signature, Printed Name,** and **Title** - same as (4), and affix the corporate **SEAL**, if a corporation.
- (14a,b,c) The authorized Agent – same as (6) – must fill in **Signature, Printed Name,** and **Title**, (“Attorney In Fact”), and affix the company **SEAL**.
- (15a,b) The person witnessing the Principal's signature – see (13a) – must **sign** and **print** his/her **name**.
- (16a,b) The person witnessing the Agent's signature – see (14a) – must **sign** and **print** his/her **name**.

ALSO:

- The Bond must be filled out completely, including signatures. Do not leave any spaces blank.
- A **Power of Attorney** form must be attached to the Bond. The dates on the POA must be consistent with the dates on 12a, 12b and 12c of the Bond.
- The person named on the **Power of Attorney** must be the same as (6) & (14).

INSTRUCTIONS FOR FILLING OUT A
TOWN OF EAST HARTFORD BOND
(for Driveway, Curb and Walk Layer's or Drain Layer's Bond)

Know ALL MEN BY THESE PRESENT, that _____ (1) _____,
(NAME OF CONTRACTOR)
a _____ (2) _____, (type of organization, e.g. Corp., partnership, sole proprietor, LLC,) ACTING HEREIN BY _____ (3) _____, ITS _____ (4) _____ as principal,
(PRINTED NAME) (TITLE)
and _____ (5) _____ ACTING HEREIN BY _____ (6) _____,
(BONDING COMPANY) (PRINTED NAME)
its attorney in fact pursuant to the attached Power of Attorney, as surety, are held and firmly bound unto the TOWN OF EAST HARTFORD (The "TOWN"), in the sum of Ten Thousand Dollars (\$10,000.00), lawful money of the United States of America, to be paid to the Town, its successors and assigns, for which payment, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas, the above bonded principal has been duly licensed by the Town as a drainlayer for a term beginning on the _____ (7a) day of _____ (7b), 20(7c) and ending on _____ (8a) day of _____ (8b), 20(8c)

NOW, THEREFORE, IF THE SAID _____ (9) _____ shall well and truly keep and perform, during said term all the terms and conditions of the ordinances of the Town, regulating the laying of private drains, and rules specified by the Director of Public Works relating to driveway apron, and shall indemnify and save harmless the Town and its servants and employees from all suits and actions of every name and description brought against the Town, or any officers of said Town, for or on account of any injuries or damages received or sustained by any person in consequence of or resulting from any work performed by said principal _____ (10) _____ servants or agents, shall faithfully perform said work in all respects and shall also guarantee his work for a period of XXX year after completion of the latest work performed under a permit obtained pursuant to this Bond, against any failure caused by defective materials, or defective workmanship and will make good such defects, if so ordered, to the satisfaction of the Director of Public Works, and shall comply in all respects with the rules and regulations established by the said Director,

relative to such work, and with the terms of the permits that may be issued to him, and shall also pay all fines imposed upon him for violation of any such rule, or regulations, then this obligation shall be of no effect, otherwise, it shall remain in full force and virtue.

DATED AT _____ (11) _____, this (12a) day of (12b) _____, 20(12c)

SIGNED, SEALED AND WITNESSED IN THE PRESENCE OF:

WITNESS OF PRINCIPAL:

(15a)
(Signature)

(15b)
(Printed Name)

PRINCIPAL:

BY _____ (13a) _____ (SEAL)
(Signature)

(13b)
(Printed Name)

ITS _____ (13c) _____
(Title)

WITNESS OF SURETY:

(16a)
(Signature)

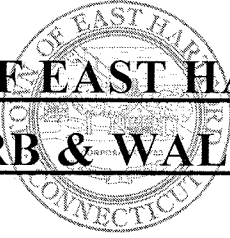
(16b)
(Printed Name)

SURETY:

BY _____ (14a) _____ (SEAL)
(Signature)

(14b)
(Printed Name)

ITS _____ (14c) _____
(Title)



TOWN OF EAST HARTFORD
DRIVEWAY, CURB & WALK LAYER'S BOND

Know ALL MEN BY THESE PRESENT, that _____,
(NAME OF COMPANY)

a _____, (type of organization, e.g. Corp., partnership, sole proprietor, LLC,) ACTING HEREIN BY _____, ITS _____ as principal,
(PRINTED NAME) (TITLE)

and _____ ACTING HEREIN BY _____,
(BONDING COMPANY) (PRINTED NAME)

its attorney in fact pursuant to the attached Power of Attorney, as surety, are held and firmly bound unto the TOWN OF EAST HARTFORD (The "TOWN"), in the sum of Ten Thousand Dollars (\$10,000.00), lawful money of the United States of America, to be paid to the Town, its successors and assigns, for which payment, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas, the above bonded principal has been duly licensed by the Town as a driveway, curb and walk layer for a term beginning on the _____ day of _____, 20____, and ending on _____ day of _____, 20____.

NOW, THEREFORE, IF THE SAID _____ shall well and truly keep and perform, during said term all the terms and conditions of the ordinances of the Town, regulating the laying of driveways, curbs and walks, and rules specified by the Director of Public Works relating to driveway apron, and shall indemnify and save harmless the Town and its servants and employees from all suits and actions of every name and description brought against the Town, or any officers of said Town, for or on account of any injuries or damages received or sustained by any person in consequence of or resulting from any work performed by said principal _____ servants or agents, shall faithfully perform said work in all respects and shall also guarantee his work for a period of two years after completion of the latest work performed under a permit obtained pursuant to this Bond, against any failure caused by defective materials, or defective workmanship and will make good such defects, if so ordered, to the satisfaction of the Director of Public Works, and shall comply in all respects with the rules and regulations established by

the said Director, relative to such work, and with the terms of the permits that may be issued to him, and shall also pay all fines imposed upon him for violation of any such rule, or regulations, then this obligation shall be of no effect, otherwise, it shall remain in full force and virtue.

DATED AT _____, this _____ day of _____, 20_____.

SIGNED, SEALED AND WITNESSED IN THE PRESENCE OF:

WITNESS OF PRINCIPAL:

PRINCIPAL:

(Signature)

BY _____ (SEAL)
(Signature)

(Printed Name)

(Printed Name)

ITS _____
(Title)

WITNESS OF SURETY:

SURETY:

(Signature)

BY _____ (SEAL)
(Signature)

(Printed Name)

(Printed Name)

ITS _____
(Title)

HOLD HARMLESS AGREEMENT

_____, in consideration of a permit
(Name of Permittee/Licensee)

or license issued to it by the Town of East Hartford on _____, hereby
(Date)

covenants and agrees to and shall, at all times, indemnify, protect and save harmless and defend the Town from and against all costs or expenses resulting from any and all losses, damages, detriment, suits, claims, demands, costs and charges, including attorneys' fees, if any, which the Town may directly or indirectly suffer, sustain or be subjected to by reason or on account of the work to be performed pursuant to such license or permit or any activities in connection with said license or permit, whether such losses and damages be suffered or sustained by the Town directly or by its employees, licensees or invitees, or be suffered or sustained by other persons or corporations who may seek to hold the Town liable therefor. The existence (or non-existence) of any insurance coverage purchased by _____
(Permittee/Licensee)

shall in no way affect the Town's rights pursuant to the terms of this agreement.

Signature of Permittee/Licensee: _____

Address: _____

Date: _____

**ATTACHMENT C:
CONSTRUCTION PLANS**

FILE: H:\DWG\Streets\Bul SPW-1903 BELL STREET SIDEWALK IMPROVEMENT 05-17-2019\PW-1903 Bell Street Sidewalk Design.dwg USER: Steven Troy DATE: 2/20/2020

PLANS DEPICTING SIDEWALK IMPROVEMENTS AT VARIOUS LOCATIONS TOWN OF GLASTONBURY PW - 1903

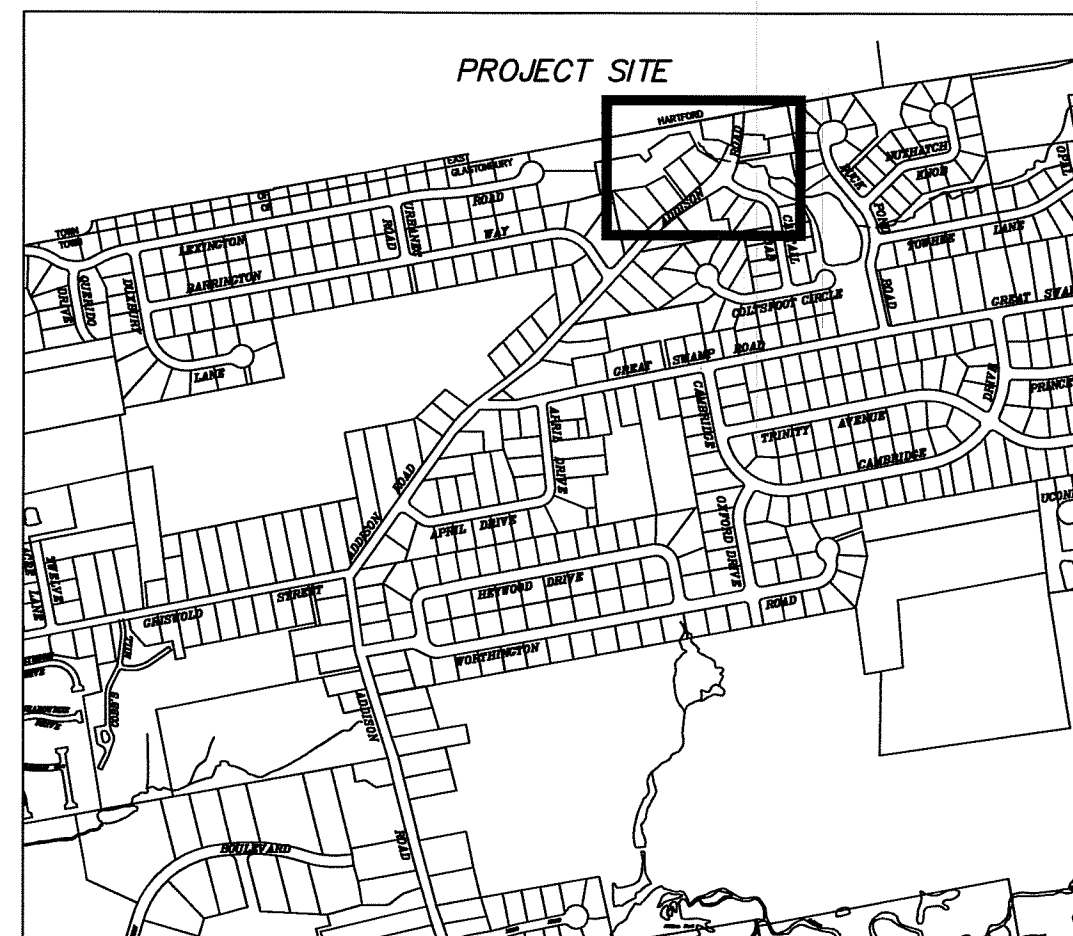


TABLE OF CONTENTS

COVER SHEET
NOTES AND DETAILS
ADDISON ROAD SIDEWALKS
BELL STREET SIDEWALKS
NEIPSIC ROAD SIDEWALKS
NEW LONDON TURNPIKE SIDEWALKS

SHEET 1
SHEET 2-3
SHEET 4-5
SHEET 6
SHEET 7
SHEET 8-9

GENERAL NOTES:

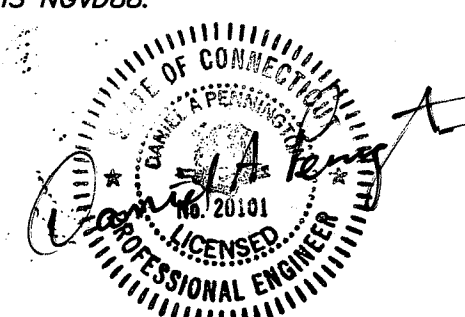
1. PROJECT OWNER IS THE TOWN OF GLASTONBURY.
2. GOVERNING SPECIFICATIONS ARE THE CONNECTICUT DEPARTMENT OF TRANSPORTATION SPECIFICATIONS FOR ROADS, BRIDGES, FACILITIES, AND INCIDENTAL CONSTRUCTION FORM 817 WITH SUPPLEMENTS THERETO DATED JULY, 2018.
3. PROJECT AREA IS ZONED RESIDENTIAL FOR ALL 4 LOCATIONS.
4. THE LOCATION OF UNDERGROUND UTILITIES DEPICTED HEREIN ARE BASED ON INFORMATION PROVIDED BY OTHERS AND SHOULD BE CONSIDERED APPROXIMATE. THE ACTUAL LOCATIONS MAY VARY FROM THAT INDICATED ON THE PLANS AND ALL UNDERGROUND UTILITIES MAY NOT BE SHOWN. CONTRACTOR SHALL CONTACT CALL BEFORE YOU DIG TO VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES AND RESOLVE CONFLICTS PRIOR TO STARTING CONSTRUCTION.
5. TOPOGRAPHY DEPICTED ON THE PLANS IS BASED ON ACTUAL FIELD SURVEY CONDUCTED BY THE TOWN OF GLASTONBURY IN APRIL AND MAY OF 2019, EXCEPT FOR ADDISON ROAD WHICH WAS CONDUCTED IN OCTOBER OF 2004. HORIZONTAL COORDINATES ARE BASED ON NAD83, VERTICAL DATUM IS NGVD88.

NOTE:

THE CONTRACTOR SHALL NOTIFY THE TOWN OF GLASTONBURY ENGINEERING DIVISION 24 HOURS PRIOR TO BEGINNING ANY STORM DRAINAGE, ROADWAY PREPARATION, PAVING, SIDEWALK, CURBING, STREETLINE MONUMENTATION, PROPERTY CORNER PINS, ETC TO SCHEDULE INSPECTIONS! THE DIVISION CAN BE REACHED BETWEEN 8:00-4:30 M-F @ 652-7735

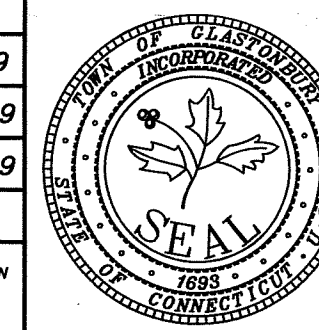
Certified to be substantially correct

DANIEL A. PENNINGTON P.E. Reg. No. 20101



DRAWING ISSUE STATUS		SCALE: AS SHOWN	DATE:
		DRAWN BY: S.Troy	8-7-2019
		CHECKED BY: S.M.B.	8-15-2019
		APPROVED BY: D.A.P.	8-15-2019
		ST. FILE:	
1.	ISSUED FOR CONSTRUCTION	2-20-2020	
NO.	DESCRIPTION	DATE	

P.W. 1903



PLANS DEPICTING
PROPOSED SIDEWALKS
FOR
GLASTONBURY, CONNECTICUT

SHEET NO.

1

OF 9

FILE: H:\DWG\Streets\Bell Street Sidewalk Improvement 05-17-2019\DWG-1903 Bell Street Sidewalk.dwg USER: Steven Troy DATE: 2/20/2020

GENERAL SEDIMENTATION AND EROSION CONTROL REQUIREMENTS:

THESE GUIDELINES SHALL APPLY TO ALL WORK CONSISTING OF ANY AND ALL TEMPORARY AND/OR PERMANENT MEASURES TO CONTROL WATER POLLUTION AND SOIL EROSION AS MAY BE REQUIRED, DURING THE CONSTRUCTION OF THE PROJECT.

IN GENERAL, ALL ACTIVITIES SHALL PROCEED IN SUCH A MANNER SO AS NOT TO POLLUTE ANY WETLANDS, WATERCOURSE, WATERBODY, AND CONDUIT CARRYING WATER, ETC. THE CONTRACTOR SHALL LIMIT, INsofar AS POSSIBLE, THE SURFACE AREA OF EARTH MATERIALS EXPOSED BY CONSTRUCTION METHODS, AND IMMEDIATELY PROVIDE PERMANENT AND TEMPORARY POLLUTION CONTROL MEASURES TO PREVENT CONTAMINATION OF ADJACENT WETLANDS, WATERCOURSES AND WATERBODIES, AND TO PREVENT, INsofar AS POSSIBLE, EROSION ON THE SITE.

CONSTRUCTION METHODS, IN GENERAL, SHALL BE IN ACCORDANCE WITH THE PROVISIONS SET FORTH IN THE "GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL" (2002) BY THE STATE OF CONNECTICUT COUNCIL ON SOIL AND WATER CONSERVATION.

1. ALL CONTROL MEASURES SHALL BE INSTALLED AS NOTED ABOVE AND AS SHOWN ON THE PLANS.
2. ALL CONTROL MEASURES SHALL BE INSPECTED AND APPROVED BY THE ENGINEER PRIOR TO COMMENCEMENT OF ANY WORK, INCLUDING PRE-CONSTRUCTION CLEARING AND GRUBBING.
3. ALL CONTROL MEASURES SHALL BE MAINTAINED AND UPGRADED AS REQUIRED TO ACHIEVE PROPER SEDIMENT CONTROL THROUGHOUT THE CONSTRUCTION PERIOD UNTIL DISTURBED AREAS HAVE BEEN THOROUGHLY STABILIZED.
4. NO CONTROL MEASURES SHALL BE REMOVED WITHOUT APPROVAL FROM THE ENGINEER.
5. ADDITIONAL CONTROL MEASURES SHALL BE INSTALLED DURING THE CONSTRUCTION PERIOD IF DEEMED NECESSARY BY THE ENGINEER.
6. THE LIMITS OF CLEARING, GRADING AND DISTURBANCE, AS SHOWN ON THE PLAN(S), SHALL BE KEPT TO A MINIMUM WITHIN THE APPROVED AREA OF CONSTRUCTION. ALL AREAS OUTSIDE THE LIMITS OF CLEARING SHALL REMAIN TOTALLY UNDISTURBED.
7. ANY CONTROL MEASURES RETAINING SEDIMENT OVER 1/2 THEIR HEIGHT SHALL HAVE THE SEDIMENT IMMEDIATELY REMOVED, AND ALL DAMAGED CONTROL MEASURES SHALL BE REMOVED AND REPLACED.
8. ALL NEW AND EXISTING CATCH BASINS LOCATED WITHIN THE PROJECT LIMITS SHALL BE PROTECTED WITH A SEDIMENTATION CONTROL SYSTEM IN GRASSED AREAS OR WITH A SEDIMENTATION CONTROL SYSTEM AT CATCH BASIN IN PAVED AREAS UNTIL ALL DISTURBED AREAS HAVE BEEN THOROUGHLY STABILIZED.
9. SEDIMENT REMOVED FROM CONTROL MEASURES AND DRAINAGE FACILITIES SHALL BE DISPOSED OF IN A MANNER THAT IS CONSISTENT WITH STATE AND LOCAL REGULATIONS.
10. THE PLANTING SEASONS FOR THE SPECIFIED SEED MIXTURE SHALL BE AS DEFINED IN THE 2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL. UNLESS DIRECTED OTHERWISE BY THE TOWN ENVIRONMENTAL PLANNER, OUTSIDE OF THESE SPECIFIED DATES, AREAS WILL BE STABILIZED WITH HAYBALE CHECK DAMS, FILTER FABRIC, OR WOODCHIP MULCH AS REQUIRED TO CONTROL EROSION.

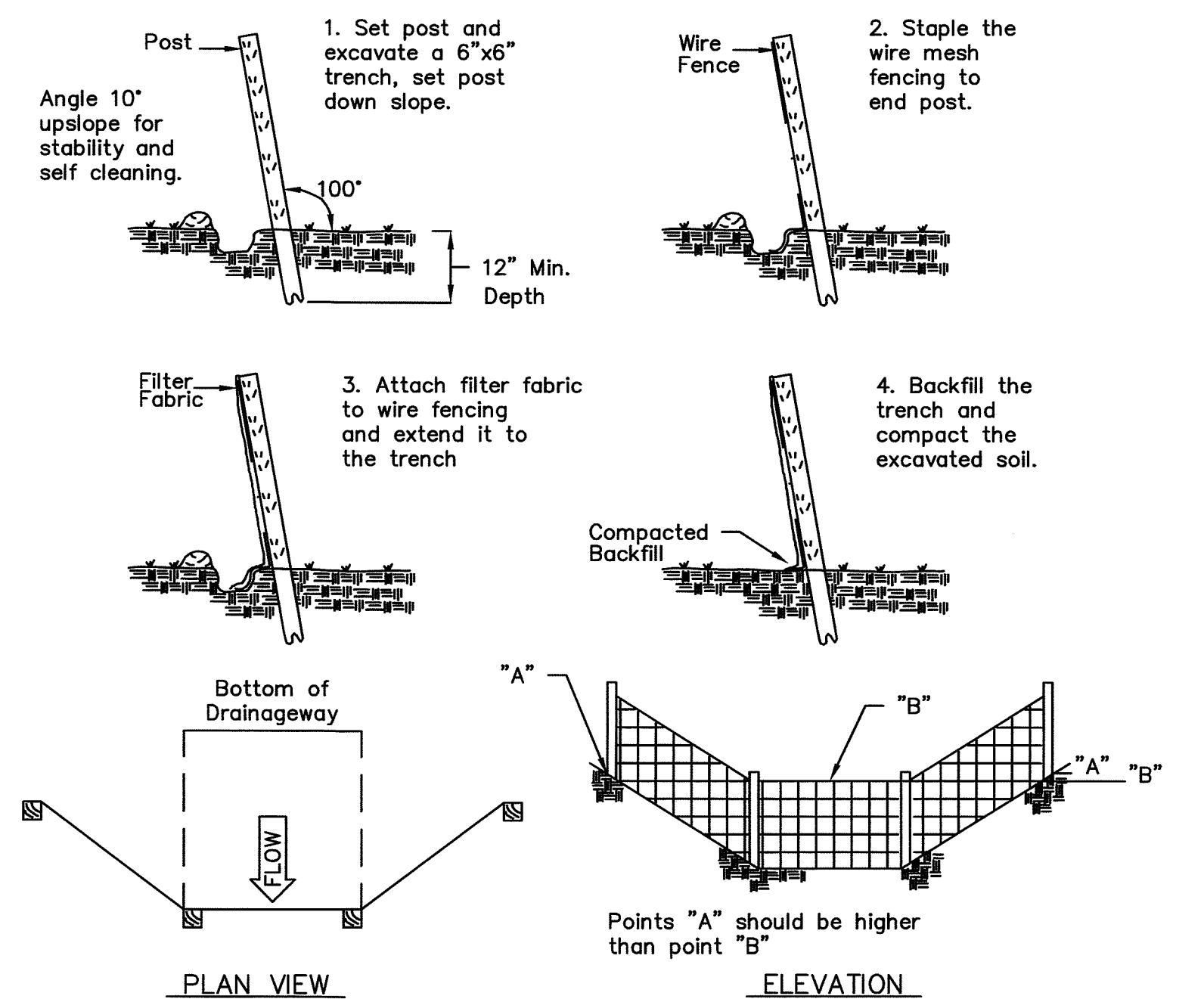
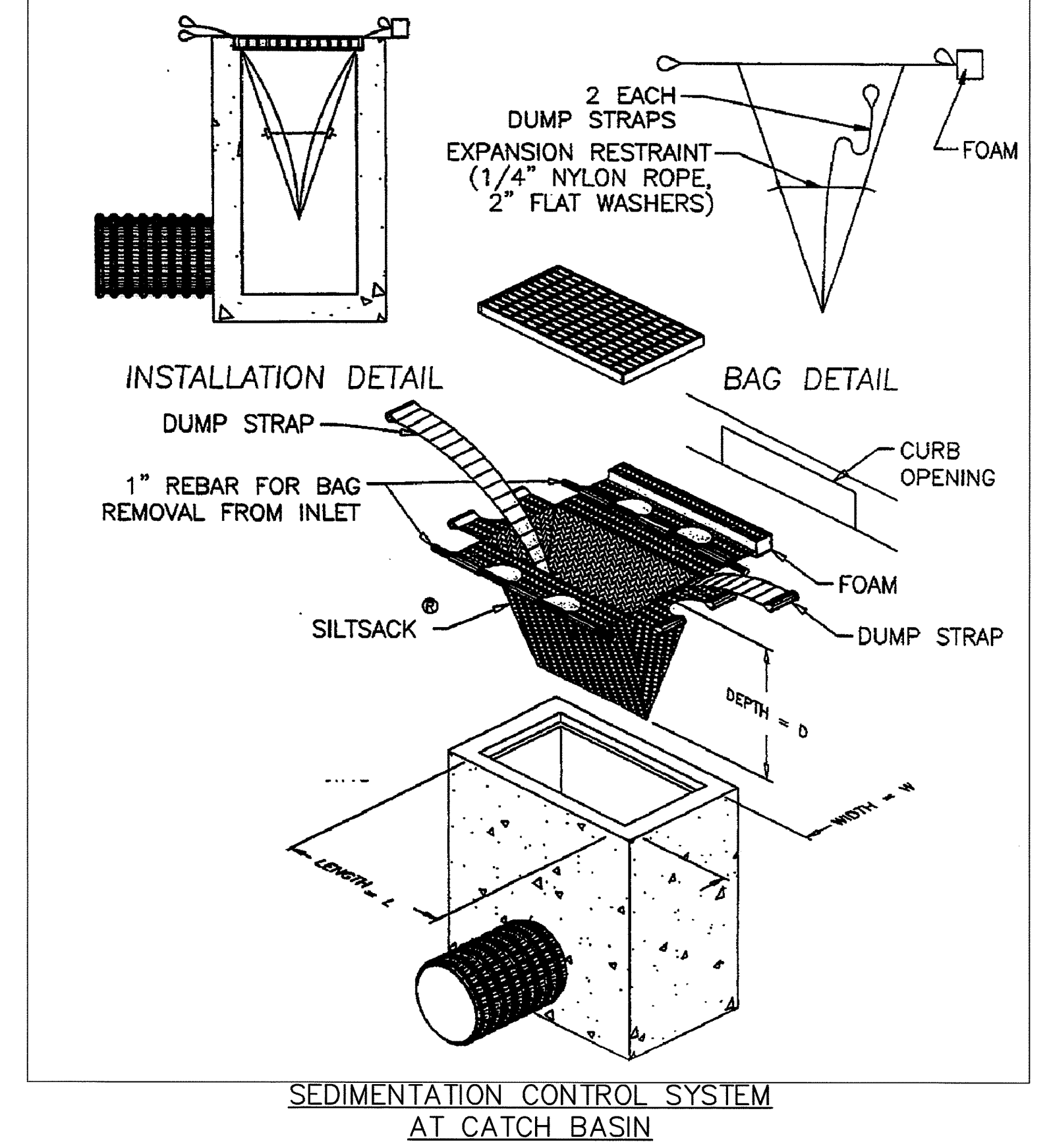
PROJECT NARRATIVE:

THIS PROJECT INCLUDES THE CONSTRUCTION OF APPROXIMATELY 425 LINEAR FEET OF 4-FOOT OR 5-FOOT WIDE CONCRETE SIDEWALK ALONG PORTIONS OF ADDISON ROAD, BELL STREET, NEIPSIC ROAD, AND NEW LONDON TURNPIKE IN GLASTONBURY. TOTAL AREA OF DISTURBANCE IS APPROXIMATELY 0.3 ACRES.

PROJECT SPECIFIC SEDIMENTATION AND EROSION CONTROL PLAN
CONSTRUCTION ACTIVITIES OF CONCERN RELATIVE TO THE PROTECTION OF ADJACENT WETLANDS AND WATERCOURSES FROM SEDIMENTATION ARE AS FOLLOWS:

1. DEWATERING: OPEN TRENCH EXCAVATIONS WILL NEED TO BE DEWATERED AS NECESSARY FOR PROPER INSTALLATION OF THE PROPOSED PIPES. IN THESE AREAS, ALL WATER REMOVED FROM THE TRENCH SHALL BE ADEQUATELY TREATED PRIOR TO DISCHARGE USING MEASURES DESCRIBED IN SECTION 5-13 OF THE 2002 CT GUIDELINES FOR EROSION AND SEDIMENT CONTROL. THIS MAY INCLUDE A STONE SUMP AND STANDPIPE FOR PUMP INTAKE PROTECTION, AND A DIRT BAG OR PUMPING SETTLING BASIN FOR TREATMENT OF THE PUMPED WATER PRIOR TO DISCHARGE.
2. STOCKPILING: EXCAVATED MATERIAL SHALL NOT BE STOCKPILED ADJACENT TO STORM DRAIN INLETS, WETLANDS, OR WATERCOURSES. WHEN IT IS NECESSARY BASED ON THE PROPOSED METHODS OF CONSTRUCTION TO STAGE EXCAVATED MATERIAL FOR SHORT DURATIONS IN THE VICINITY OF STORM DRAIN INLETS, THESE INLETS SHALL BE PROPERLY PROTECTED AS DESCRIBED ON THE PLANS. LONGER DURATION STOCKPILING OF MATERIAL, WHEN NECESSARY, SHALL BE ONLY IN LOCATIONS APPROVED IN ADVANCE BY THE ENGINEER, AND SUCH STOCKPILES SHALL BE RINGED WITH A SEDIMENTATION CONTROL SYSTEM.
3. DISTURBED AREAS: LIMITS OF DISTURBANCE SHALL BE IN STRICT ACCORDANCE WITH THE APPROVED PLAN. ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE STABILIZED WITH THE FINAL SURFACE TREATMENT AS SOON AS POSSIBLE AFTER CONSTRUCTION ACTIVITIES ARE COMPLETED. DISTURBED AREAS WITH STEEP OR LONG SLOPES AND OTHER AREAS WITH SIGNIFICANT POTENTIAL FOR CAUSING SEDIMENTATION SHALL BE PROTECTED WITH TEMPORARY STRAW MULCH, WOOD CHIPS, EROSION CONTROL MATTING, OR OTHER SUITABLE MATERIALS PRIOR TO SIGNIFICANT FORECASTED RAIN STORM EVENTS TO REDUCE EROSION POTENTIAL.
4. SEVERE WEATHER CONTINGENCY PLAN: IN ADVANCE OF A SEVERE WEATHER EVENT, ALL EROSION CONTROLS DESCRIBED ABOVE AND ELSEWHERE ON THE PLANS SHALL BE INSPECTED AND ADJUSTED AS NECESSARY.

Typical Siltsack® Construction



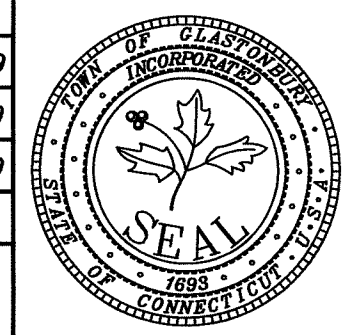
Source: U.S. Department of Agriculture, Soil Conservation Service, Storrs, Connecticut

**SEDIMENTATION CONTROL
FILTER FABRIC FENCE SYSTEM**



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DANIEL A. PENNINGTON P.E. Reg. No. 20101

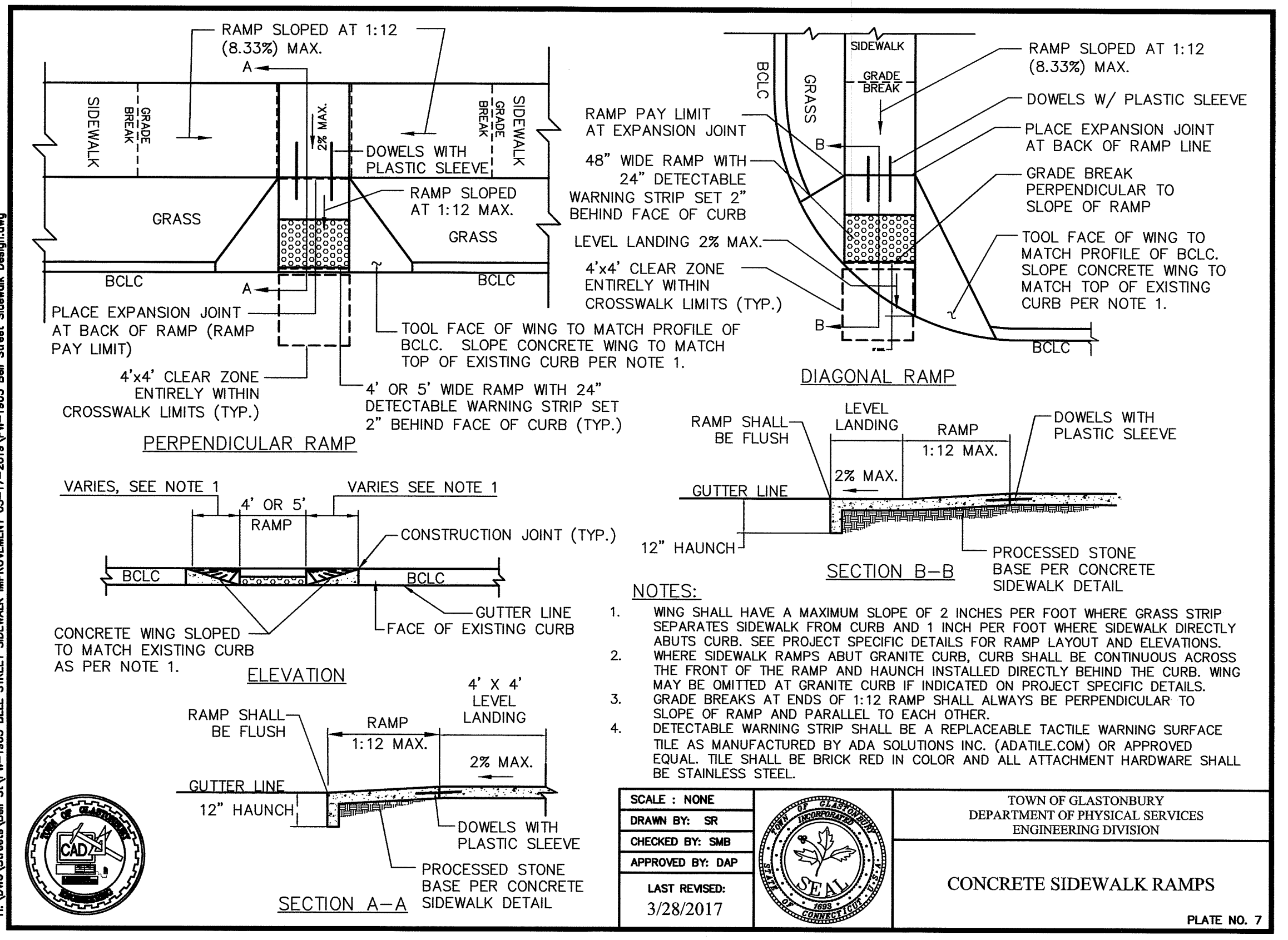
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		CHECKED BY: S.M.B.	8-15-2019
		APPROVED BY: D.A.P.	8-15-2019
		ST. FILE:	
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NO.	DESCRIPTION	DATE	



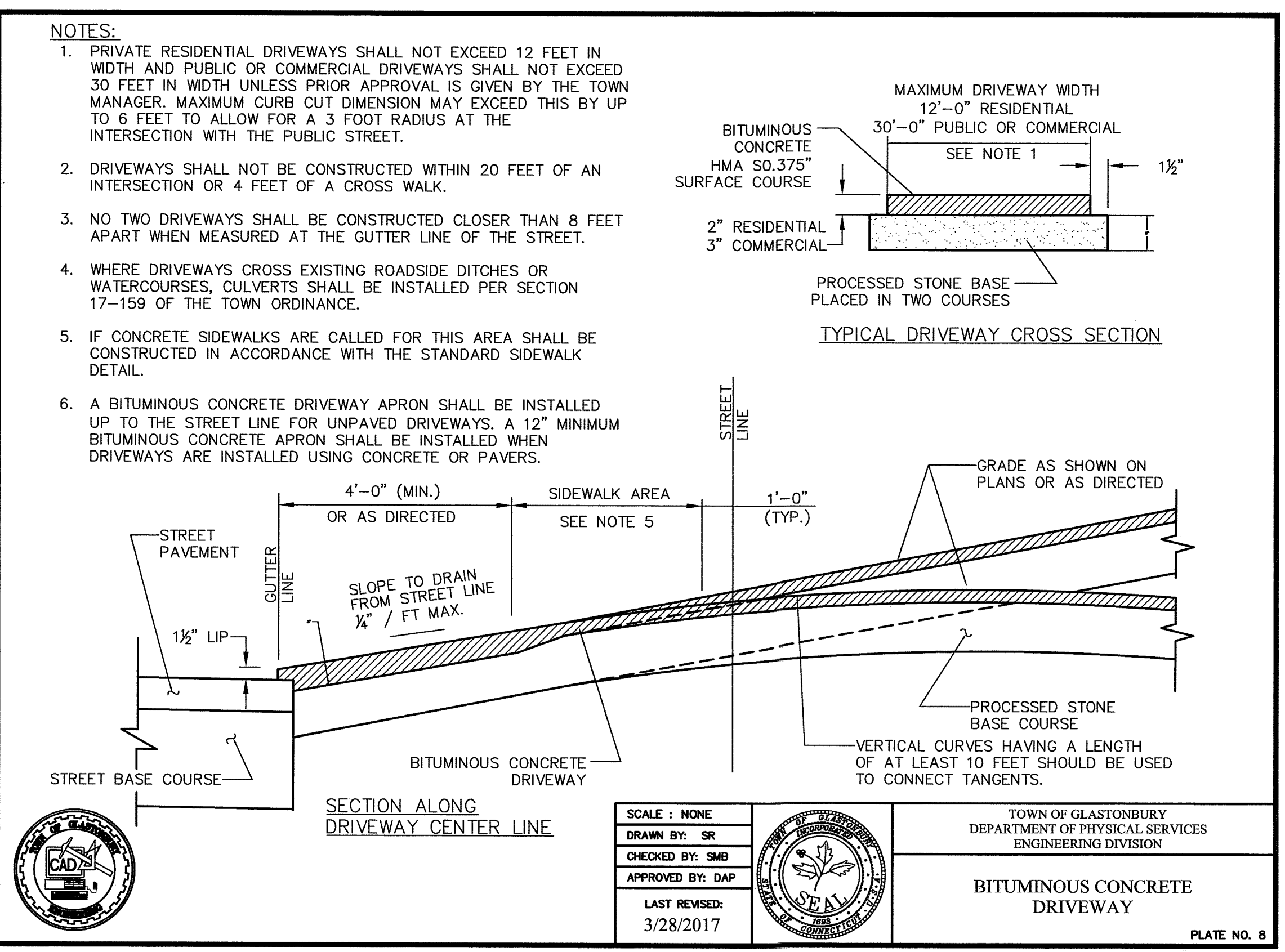
**NOTES
FOR
SIDEWALKS IMPROVEMENTS
AT
VARIOUS LOCATIONS
GLASTONBURY, CONNECTICUT**

SHEET NO.
2
OF 9

FILE: H:\DWG\Streets\Bel St\1903 Bell Street Sidewalk Improvement 05-17-2019\1903 Bell Street Sidewalk Design.dwg (USER: S. Troy) DATE: 2/20/2020
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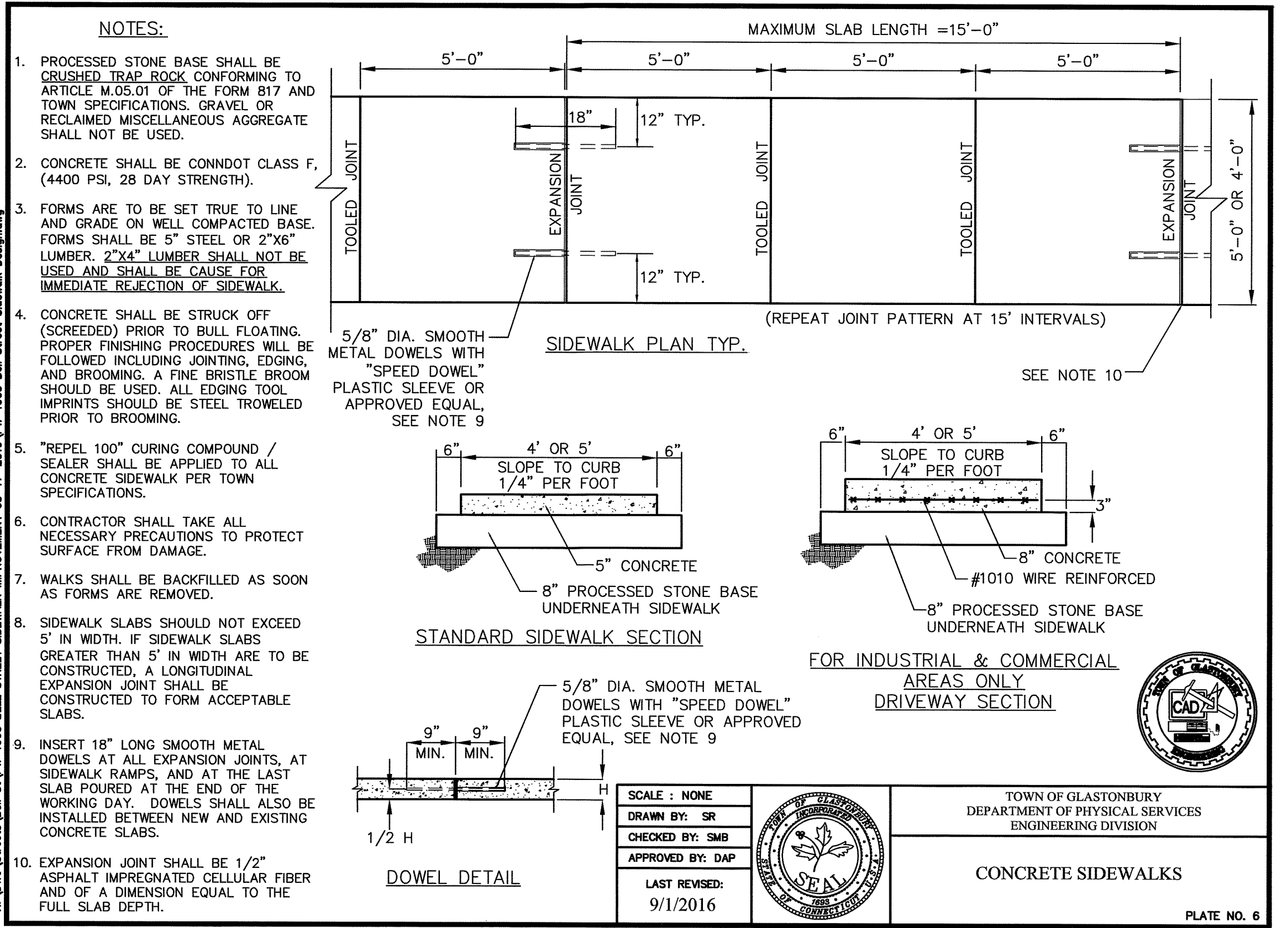


CONCRETE SIDEWALK RAMPS
 TOWN OF GLASTONBURY
 DEPARTMENT OF PHYSICAL SERVICES
 ENGINEERING DIVISION
 SCALE: NONE
 DRAWN BY: SR
 CHECKED BY: SMB
 APPROVED BY: DAP
 LAST REVISED: 3/28/2017
 PLATE NO. 7

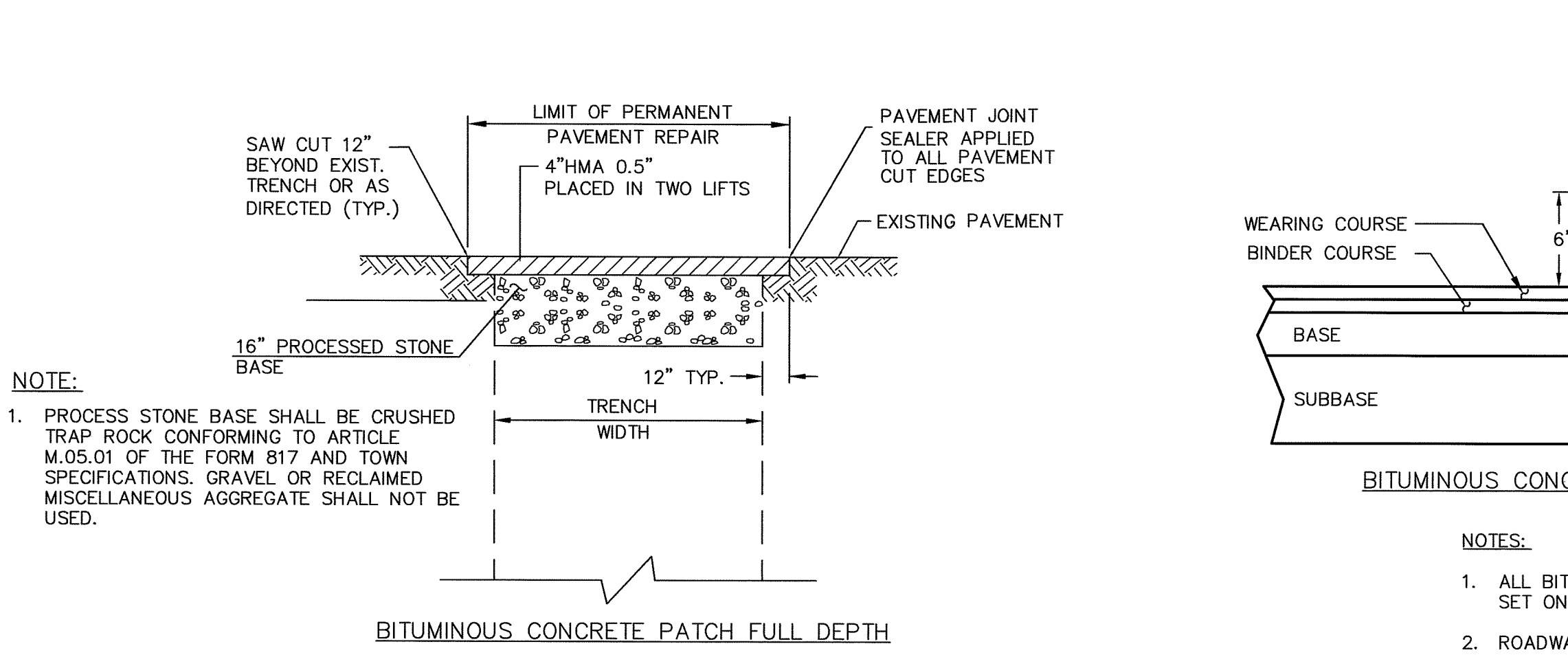


BITUMINOUS CONCRETE DRIVEWAY
 TOWN OF GLASTONBURY
 DEPARTMENT OF PHYSICAL SERVICES
 ENGINEERING DIVISION
 SCALE: NONE
 DRAWN BY: SR
 CHECKED BY: SMB
 APPROVED BY: DAP
 LAST REVISED: 3/28/2017
 PLATE NO. 8

- SIDEWALK RAMP CONSTRUCTION GENERAL NOTES:**
1. CONCRETE SIDEWALKS AND CONCRETE SIDEWALK RAMPS SHALL BE CONSTRUCTED ACCORDING TO THE TOWN STANDARD DETAILS SHOWN ON THIS SHEET AND THE SITE SPECIFIC LAYOUT AND GRADING DETAILS SHOWN ON EACH CONSTRUCTION PLAN.
 2. CONTRACTOR SHALL CONTACT THE TOWN ENGINEERING DIVISION AT 860-652-7735 TO SCHEDULE AN INSPECTION OF SIDEWALK RAMP FORMS A MINIMUM OF 24 HOURS PRIOR TO THE SCHEDULED CONCRETE POUR.
 3. SIDEWALK RAMPS SHALL HAVE A COARSE BROOM FINISH TRANSVERSE TO THE SLOPE OF THE RAMP.
 4. REMOVAL OF EXISTING SIDEWALK FOR NEW RAMP INSTALLATION SHALL BE TO THE NEAREST EXPANSION OR CONTRACTION JOINT BEYOND THE LIMITS OF SIDEWALK REPLACEMENT SHOWN ON THE PLANS.
 5. THE RUNNING SLOPE OF SIDEWALK RAMPS SHALL NOT EXCEED 8%.
 6. SIDEWALK RAMPS SHALL BE FLUSH WITH THE ROADWAY OR SHALL HAVE A LIP NOT GREATER THAN 1/4 INCH.
 7. TRANSITION SIDEWALK RAMP CROSS SLOPE TO MATCH THE ROADWAY PROFILE AS GRADUALLY AS POSSIBLE. DO NOT EXCEED 3% PER FOOT CROSS SLOPE RATE OF CHANGE WHEN TRANSITIONING TO THE ROADWAY PROFILE.
 8. TRANSITION OF RAMP CROSS SLOPE TO ROADWAY PROFILE SHALL BE COMPLETED BEHIND THE DETECTABLE WARNING SURFACE.



CONCRETE SIDEWALKS
 TOWN OF GLASTONBURY
 DEPARTMENT OF PHYSICAL SERVICES
 ENGINEERING DIVISION
 SCALE: NONE
 DRAWN BY: SR
 CHECKED BY: SMB
 APPROVED BY: DAP
 LAST REVISED: 9/1/2016
 PLATE NO. 6



BITUMINOUS CONCRETE PATCH FULL DEPTH
 TOWN OF GLASTONBURY
 DEPARTMENT OF PHYSICAL SERVICES
 ENGINEERING DIVISION
 SCALE: NONE
 DRAWN BY: SR
 CHECKED BY: SMB
 APPROVED BY: DAP
 LAST REVISED: 3/28/2017
 PLATE NO. 9

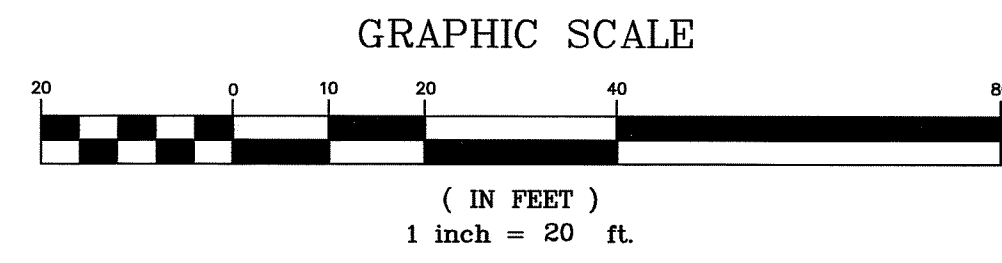
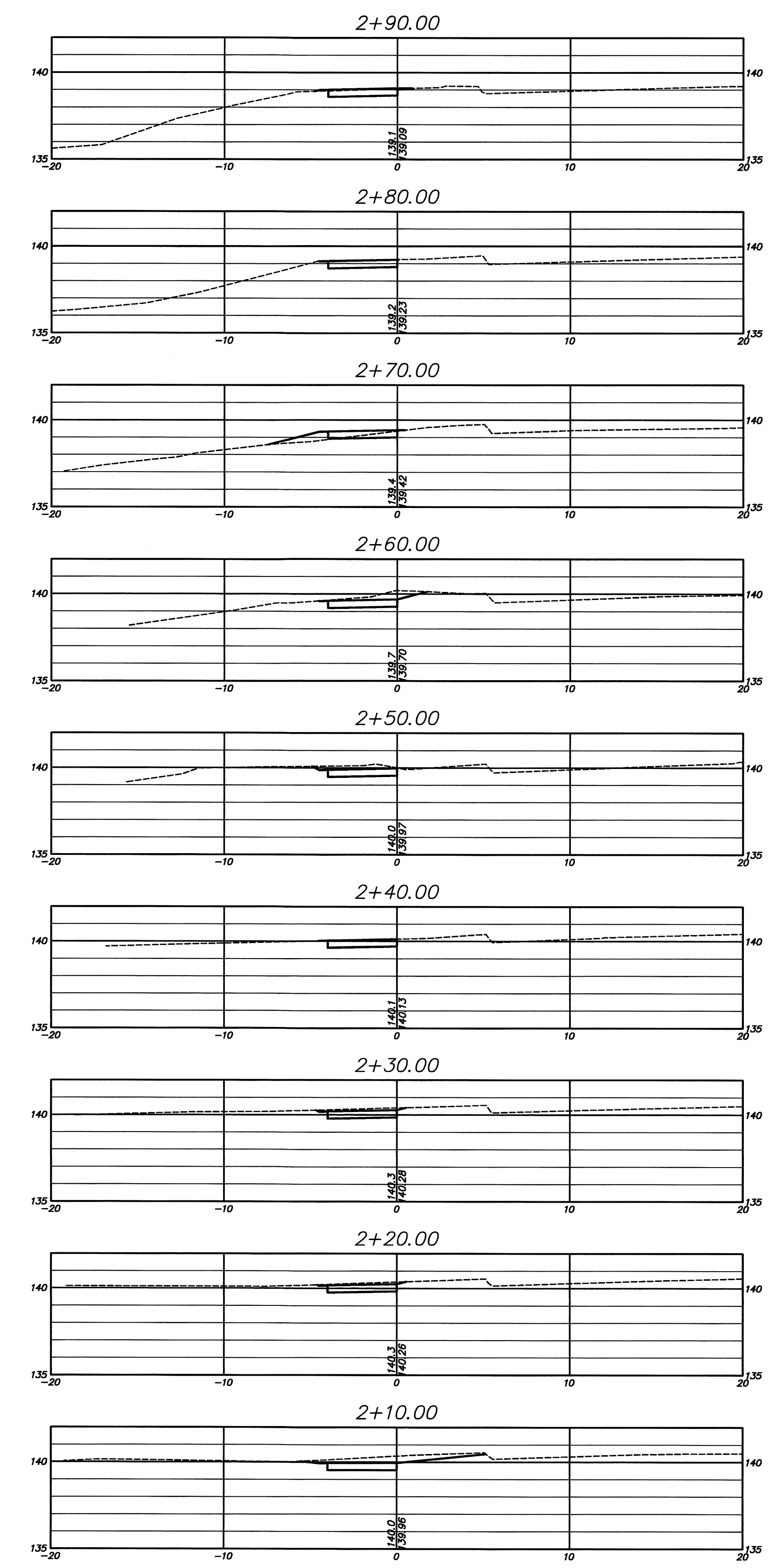
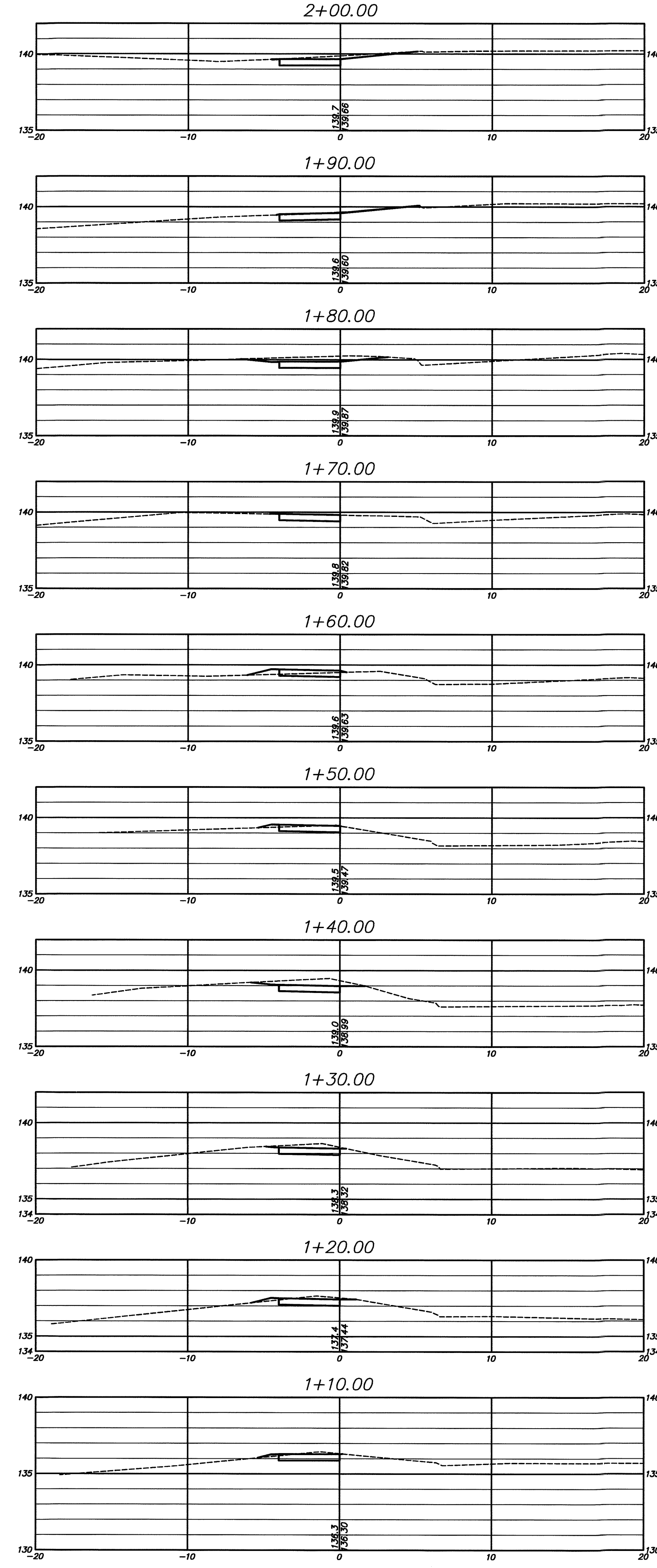
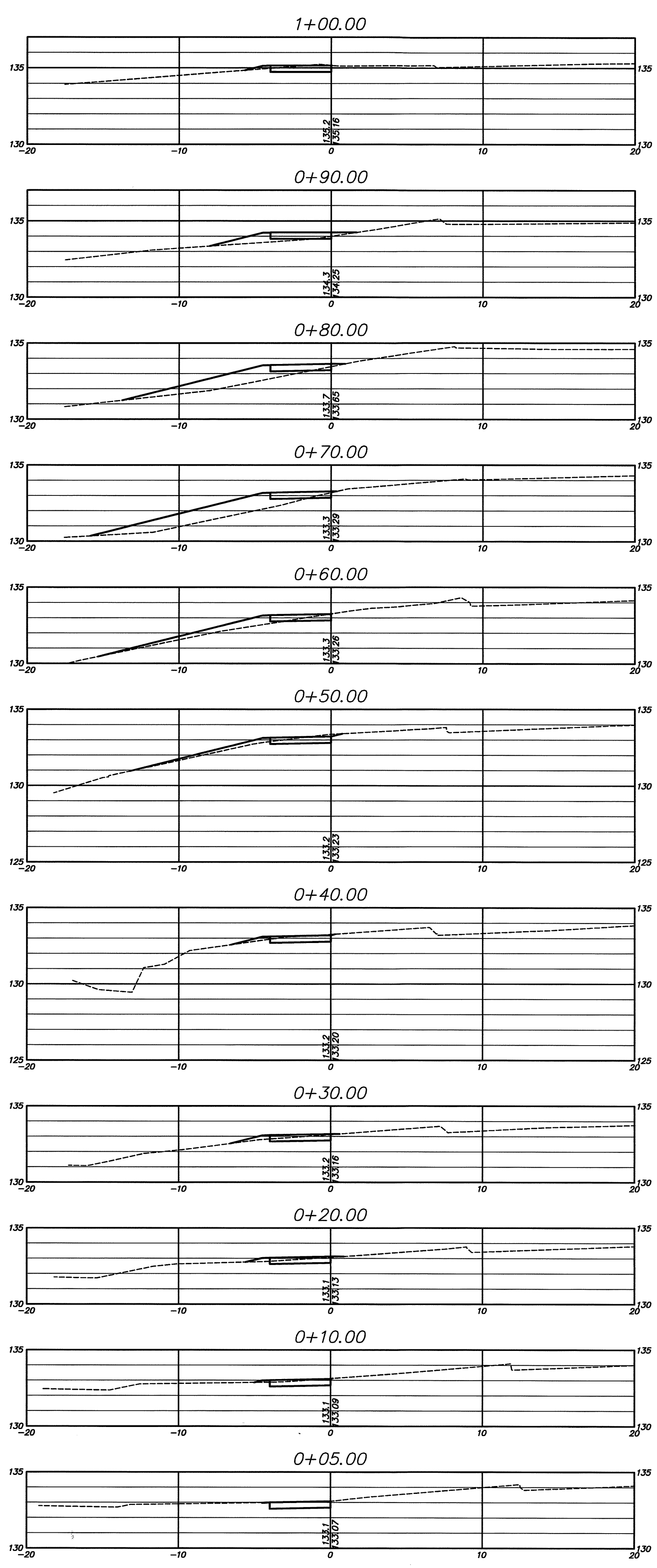
- NOTES:**
1. ALL BITUMINOUS CURBING IS TO BE SET ON THE WEARING COURSE.
 2. ROADWAY SHALL BE SWEEP CLEAN AND PROPERLY TACK COATED PRIOR TO BITUMINOUS CURB INSTALLATION.

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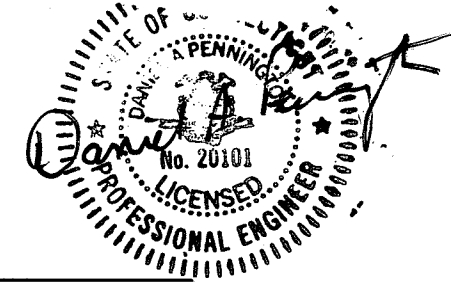
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1.	ISSUED FOR CONSTRUCTION	2-20-2020	7-30-2019
			8-15-2019
			8-15-2019

DETAILS FOR SIDEWALKS IMPROVEMENTS AT VARIOUS LOCATIONS GLASTONBURY, CONNECTICUT

SHEET NO. **3** OF 9



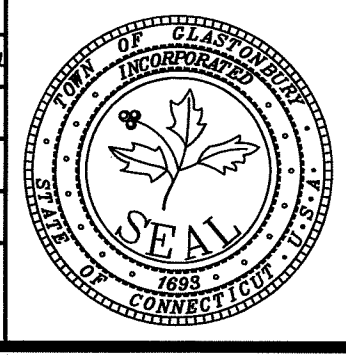
Certified to be substantially correct



DANIEL A. PENNINGTON P.E. Reg. No. 20101

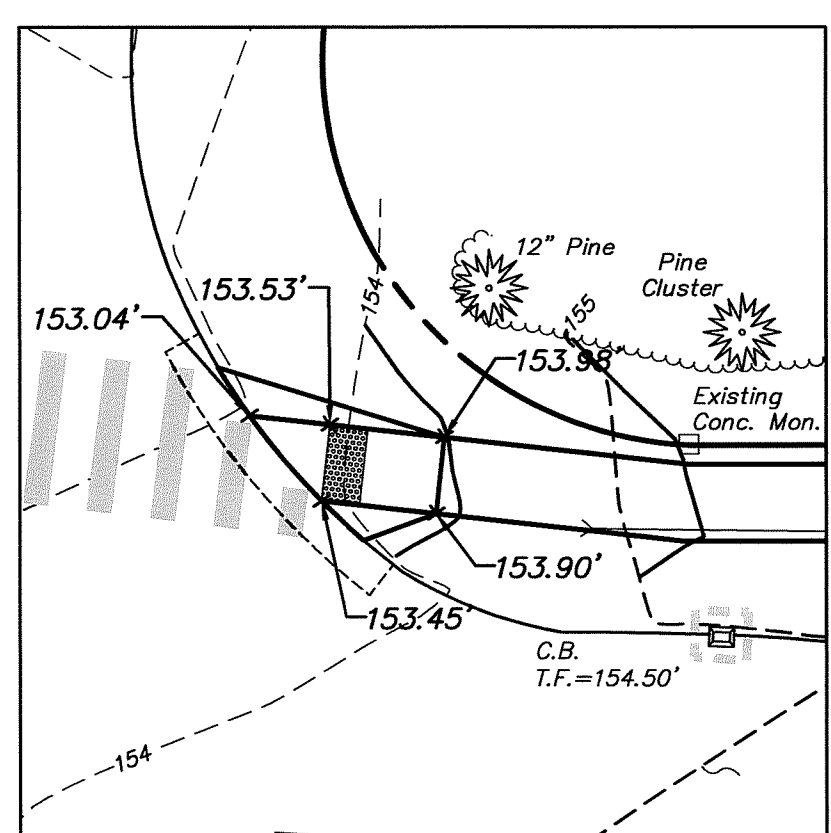
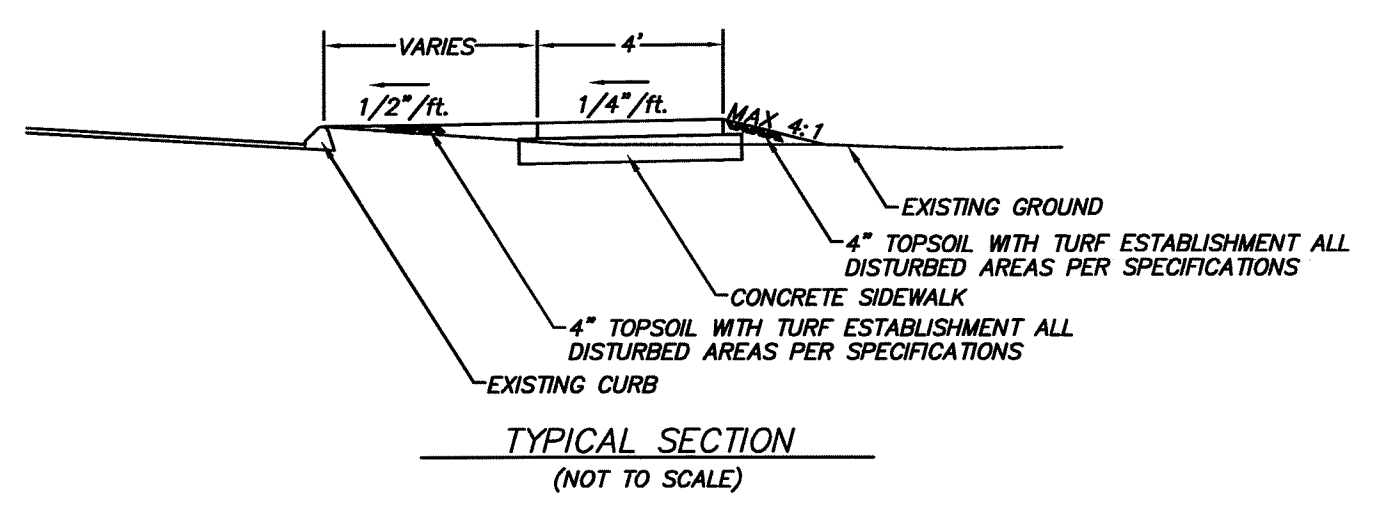
P.W. 1903

DRAWING ISSUE STATUS		SCALE: AS SHOWN	DATE:
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		CHECKED BY: S.M.B.	8-15-2019
		APPROVED BY: D.A.P.	8-15-2019
		ST. FILE:	
		MANUAL REVISIONS TO THIS DOCUMENT ARE PROHIBITED. ALL REVISIONS MUST BE PERFORMED BY CHANGING THE NUMBER IN THE LEFT MARGIN. IF THERE ARE ANY DISCREPANCIES OR QUESTIONS CONTACT THE TOWN OF GLASTONBURY, ENGINEERING OFFICE AT (860) 632-7733.	

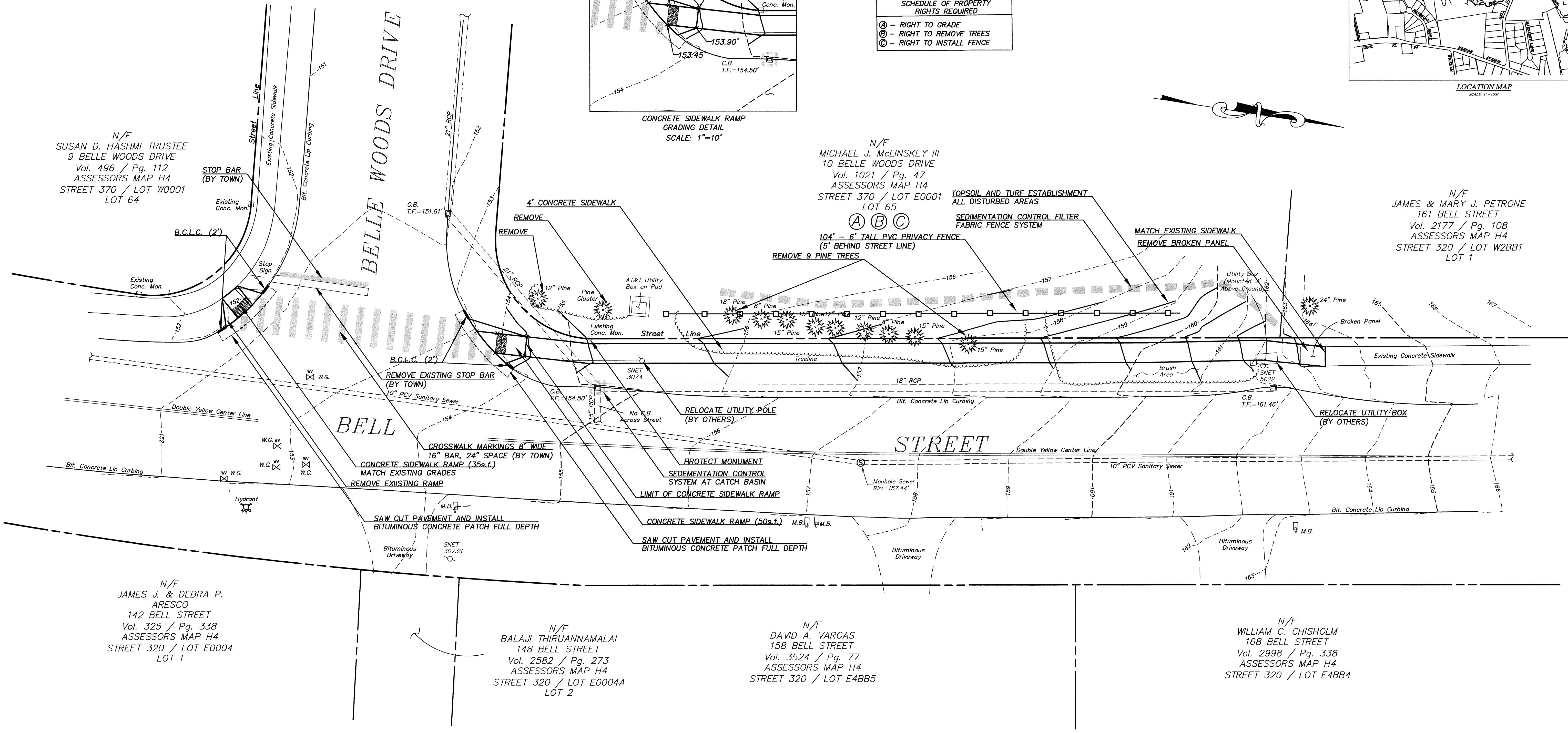


CROSS SECTIONS
DEPICTING
PROPOSED SIDEWALKS
ON
ADDISON ROAD
GLASTONBURY, CONNECTICUT

FILE: H:\DWG\Streets\Bell SHPW-1903 BELL STREET SIDEWALK IMPROVEMENT 05-17-2019\DWG-1903 Bell Street Sidewalk Design.dwg USER: Steven Troy DATE: 2/20/2020



SCHEDULE OF PROPERTY RIGHTS REQUIRED
 (A) - RIGHT TO GRADE
 (B) - RIGHT TO REMOVE TREES
 (C) - RIGHT TO INSTALL FENCE



N/F
 SUSAN D. HASHMI TRUSTEE
 9 BELLE WOODS DRIVE
 Vol. 496 / Pg. 112
 ASSESSORS MAP H4
 STREET 370 / LOT W0001
 LOT 64

N/F
 MICHAEL J. McLINSKEY III
 10 BELLE WOODS DRIVE
 Vol. 1021 / Pg. 47
 ASSESSORS MAP H4
 STREET 370 / LOT E0001
 LOT 65

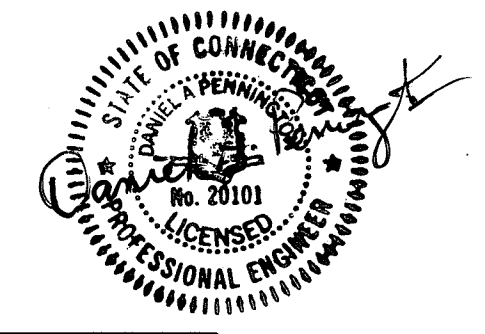
N/F
 JAMES & MARY J. PETRONE
 161 BELL STREET
 Vol. 2177 / Pg. 108
 ASSESSORS MAP H4
 STREET 320 / LOT W2BB1
 LOT 1

N/F
 JAMES J. & DEBRA P.
 ARESCO
 142 BELL STREET
 Vol. 325 / Pg. 338
 ASSESSORS MAP H4
 STREET 320 / LOT E0004
 LOT 1

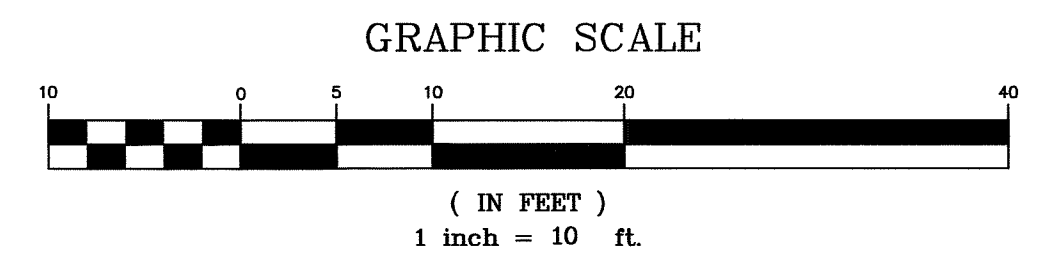
N/F
 BALAJI THIRUANNAMALAI
 148 BELL STREET
 Vol. 2582 / Pg. 273
 ASSESSORS MAP H4
 STREET 320 / LOT E0004A
 LOT 2

N/F
 DAVID A. VARGAS
 158 BELL STREET
 Vol. 3524 / Pg. 77
 ASSESSORS MAP H4
 STREET 320 / LOT E4BB5

N/F
 WILLIAM C. CHISHOLM
 168 BELL STREET
 Vol. 2998 / Pg. 338
 ASSESSORS MAP H4
 STREET 320 / LOT E4BB4

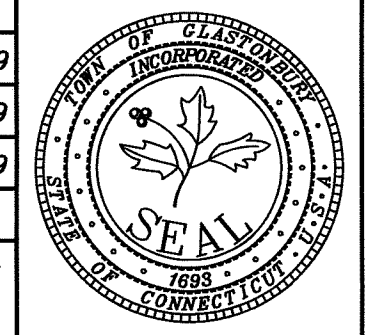


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			8-15-2019

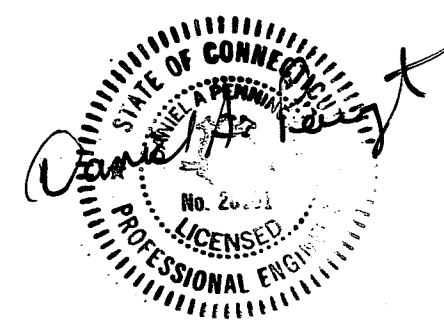
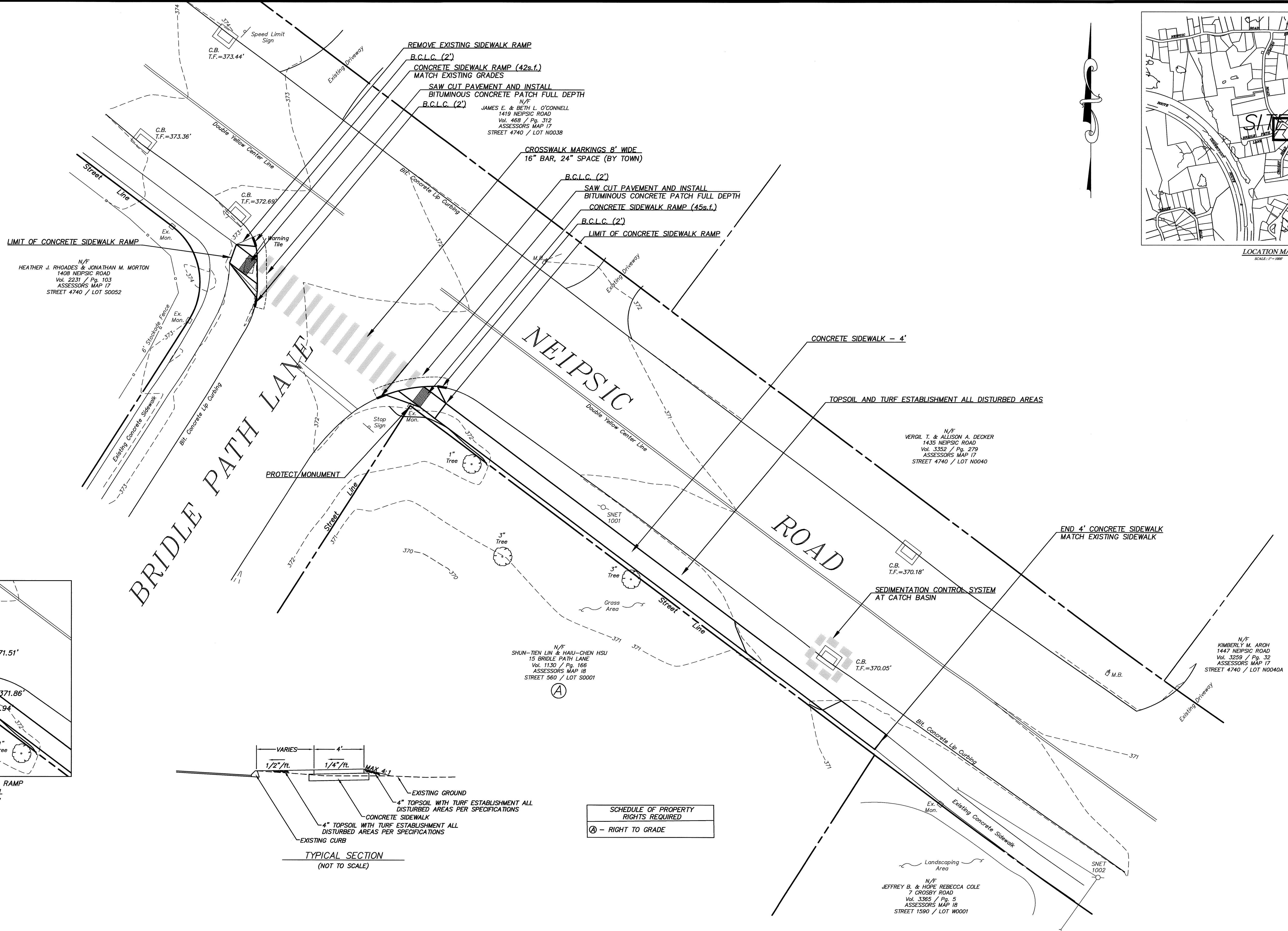
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PLAN DEPICTING
 PROPOSED SIDEWALKS
 ON
 BELL STREET
 GLASTONBURY, CONNECTICUT

SHEET NO.
6
 OF 9

FILE: H:\DWG\Streets\Neipsic\1903 NEIPSIC ROAD SIDEWALK IMPROVEMENTS 05-17-2019.PW-1903 Neipsic Road Sidewalk Design.dwg USER: Steven Troy DATE: 2/20/2020

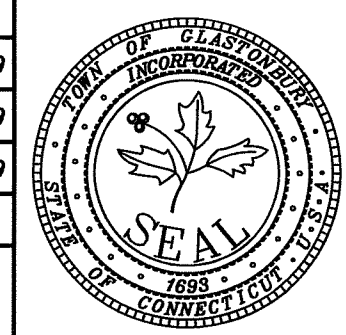


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DRAWING ISSUE STATUS		SCALE: AS SHOWN	DATE:
1.	ISSUED FOR CONSTRUCTION	2-20-2020	6-18-2019
			8-15-2019
			8-15-2019

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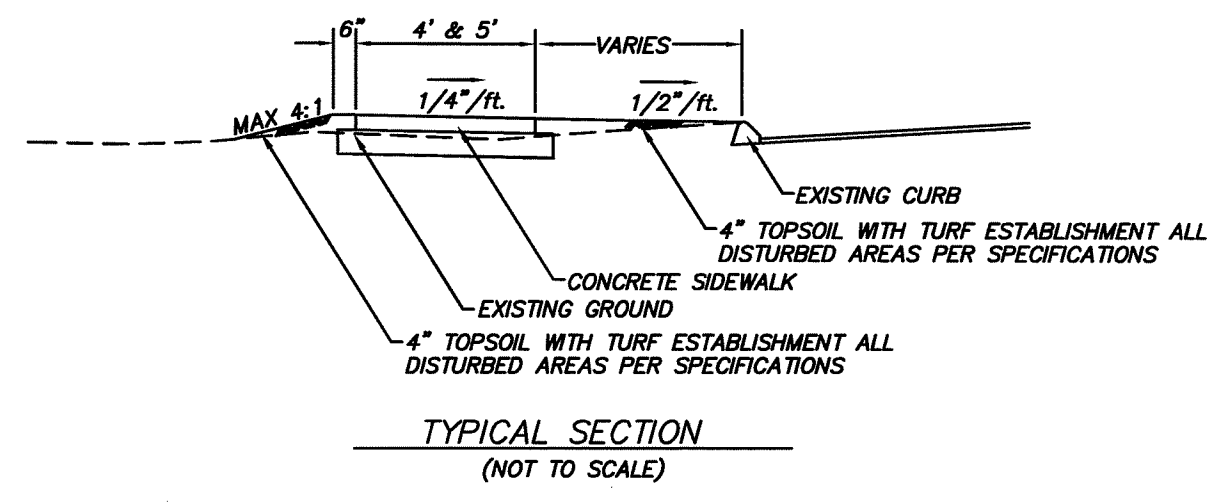


**PLAN DEPICTING
 PROPOSED SIDEWALKS
 ON
 NEIPSIC ROAD
 GLASTONBURY, CONNECTICUT**

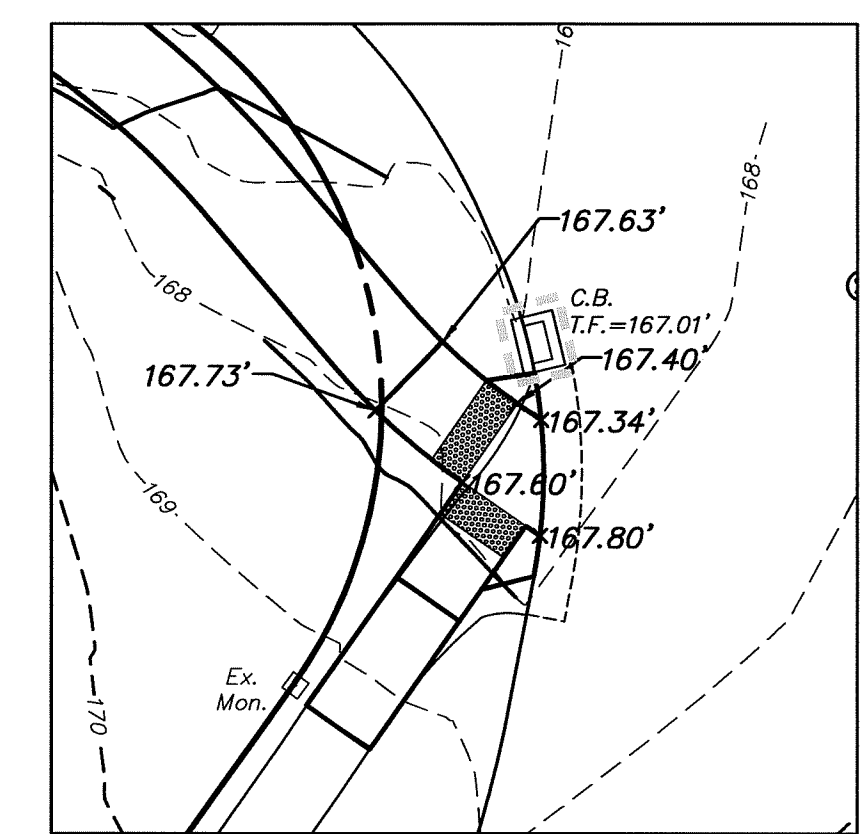
SHEET NO.
7
 OF 9

P.W. 1903

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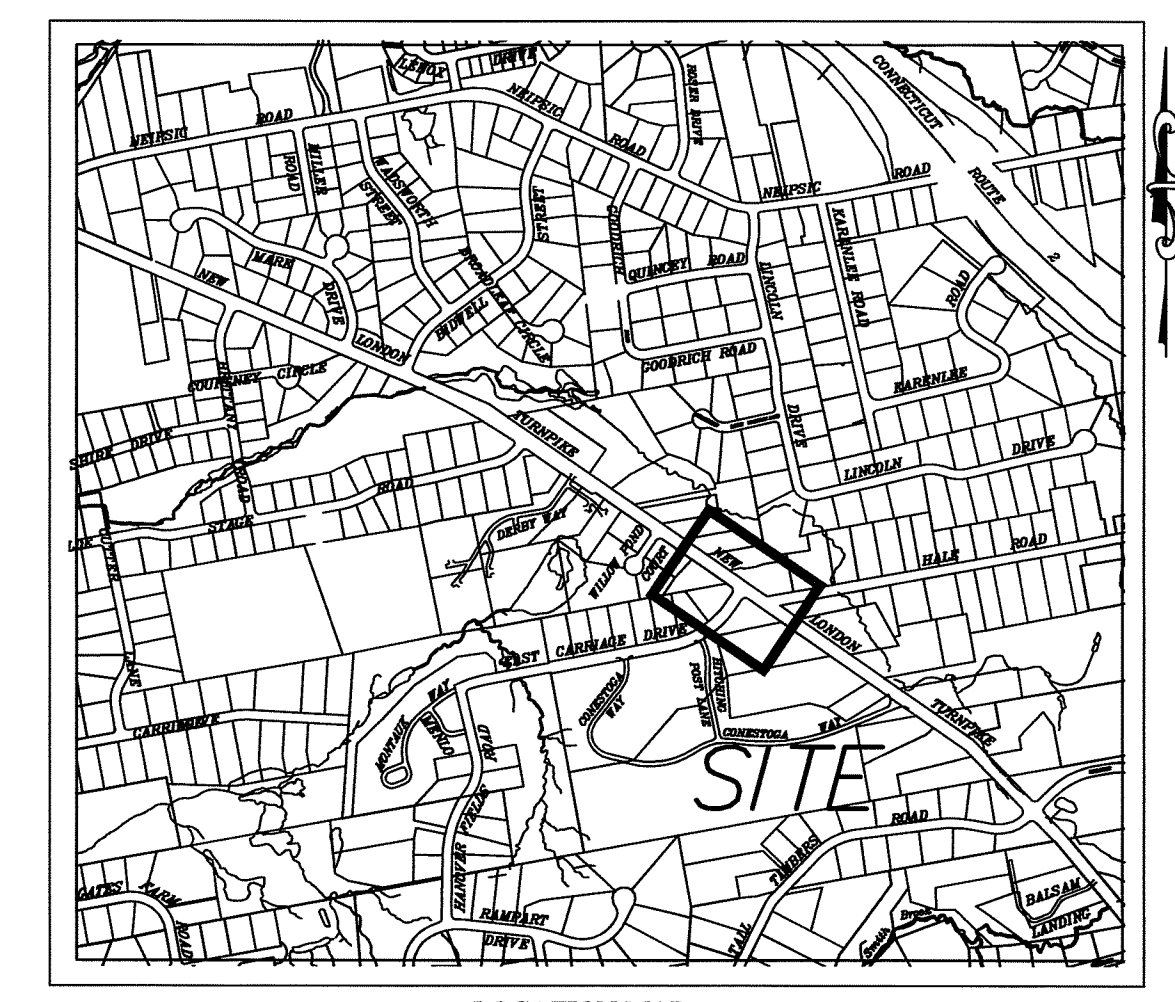
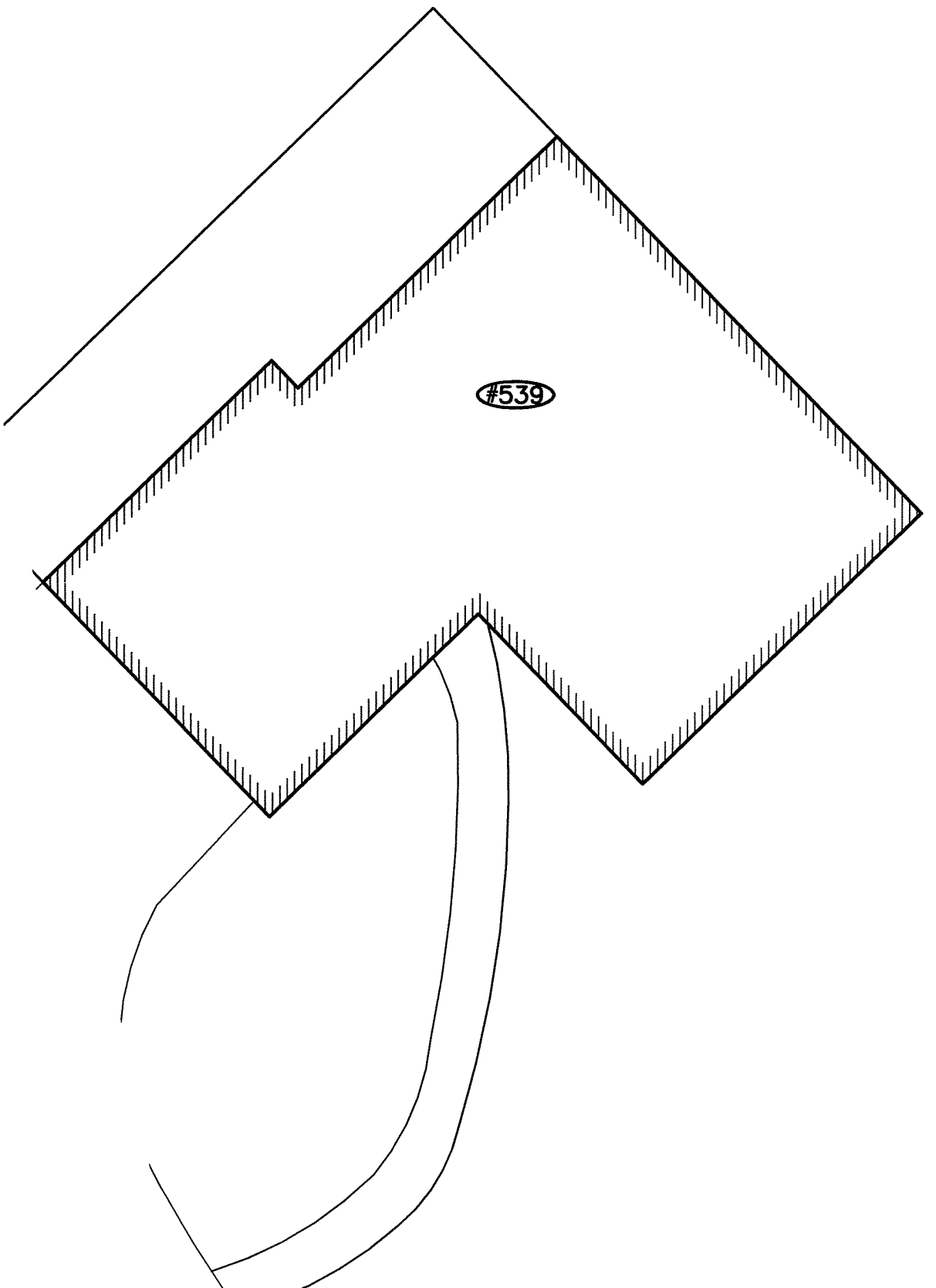


N/F
NUZZOLO BROTHERS HOLDING
COMPANY LLC
Vol. 3461 / Pg. 21

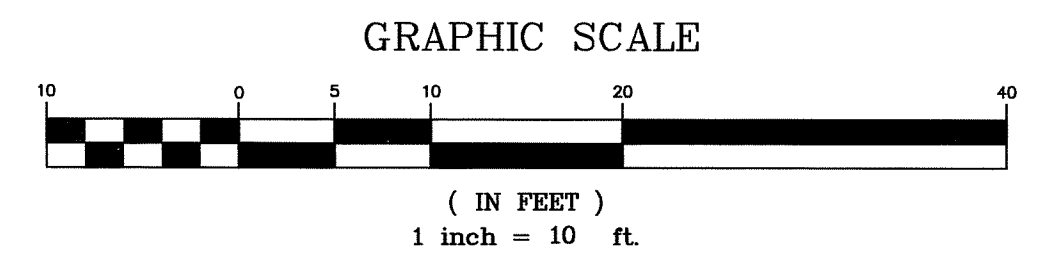


CONCRETE SIDEWALK RAMP
GRADING DETAIL
SCALE: 1"=10'

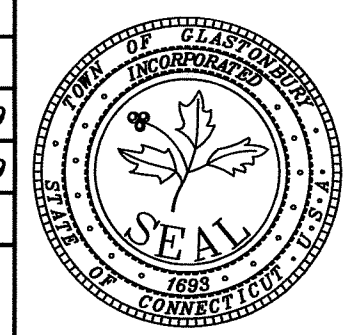
N/F
THOMAS E. & JOAN S. BREEN
Vol. 223 / Pg. 44
ASSESSORS MAP F7
BLOCK 1980 / LOT N0001



LOCATION MAP
SCALE: 1"=100'



DRAWING ISSUE STATUS		SCALE: AS SHOWN	DATE:
1.	ISSUED FOR CONSTRUCTION	2-20-2020	8-8-2019
			8-15-2019
			8-15-2019



PLAN DEPICTING
PROPOSED SIDEWALKS
ON
NEW LONDON TURNPIKE
AND
EAST CARRIAGE DRIVE
GLASTONBURY, CONNECTICUT

SHEET NO.
8
OF 9

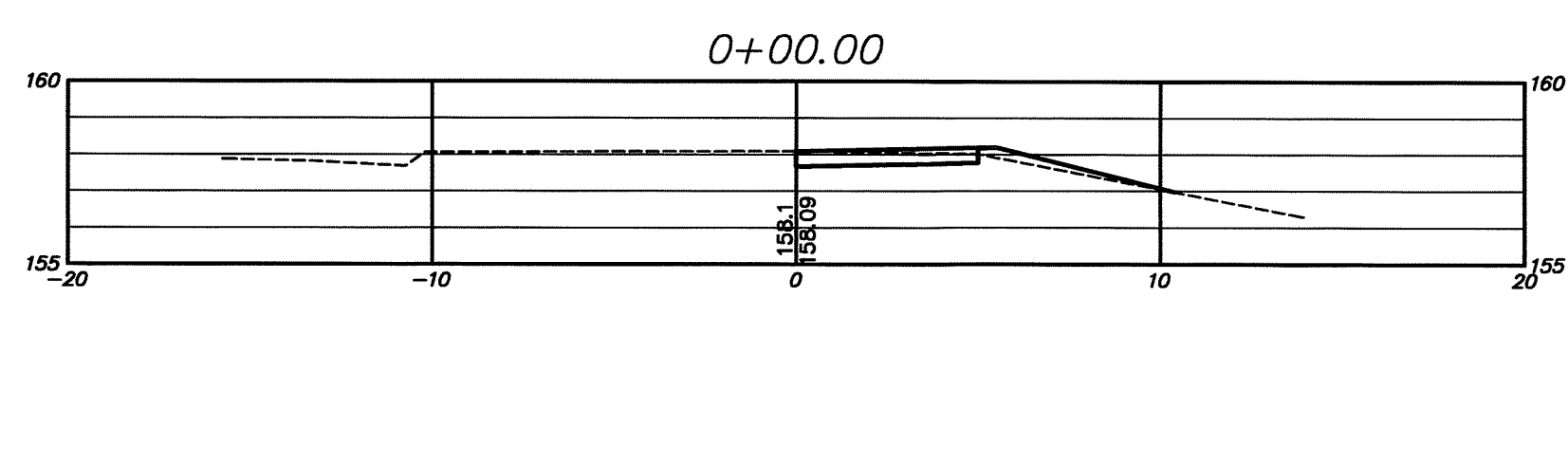
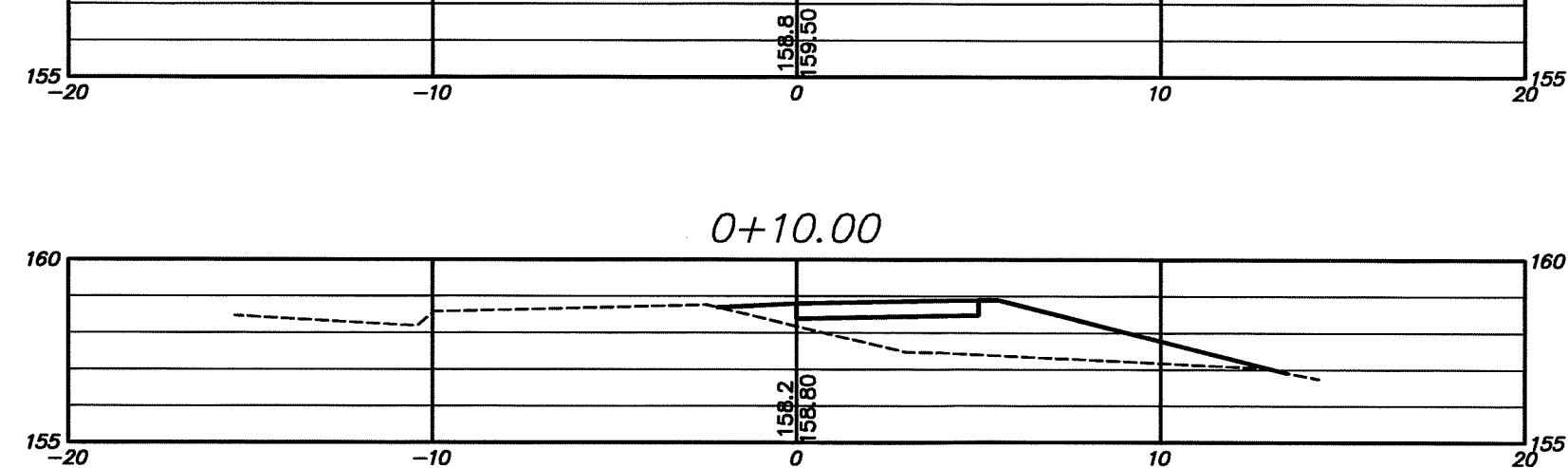
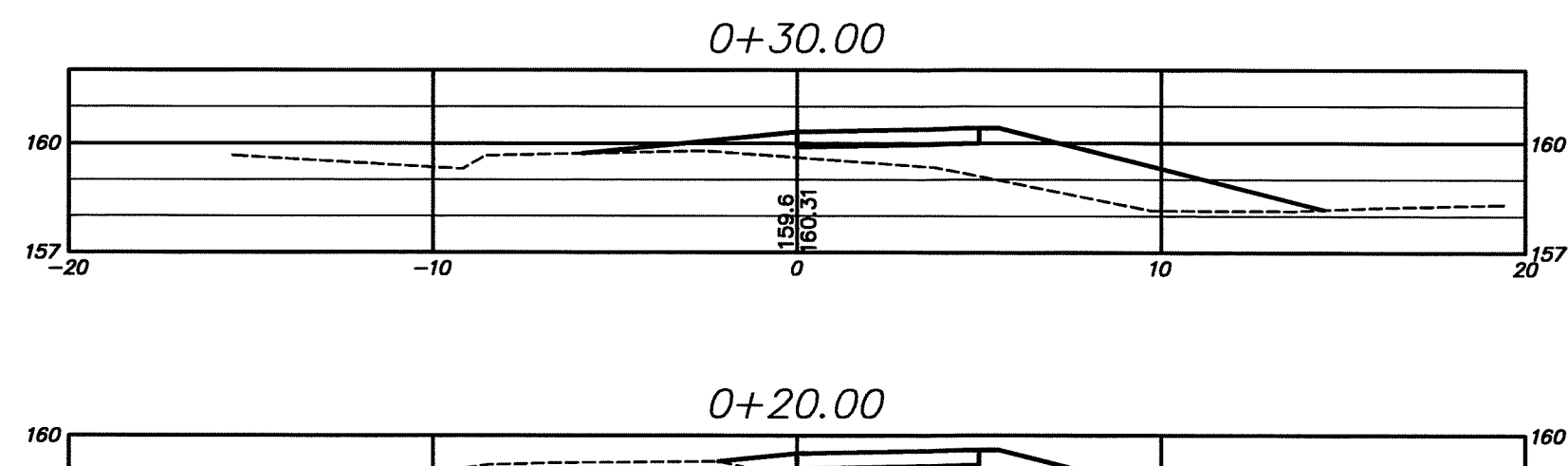
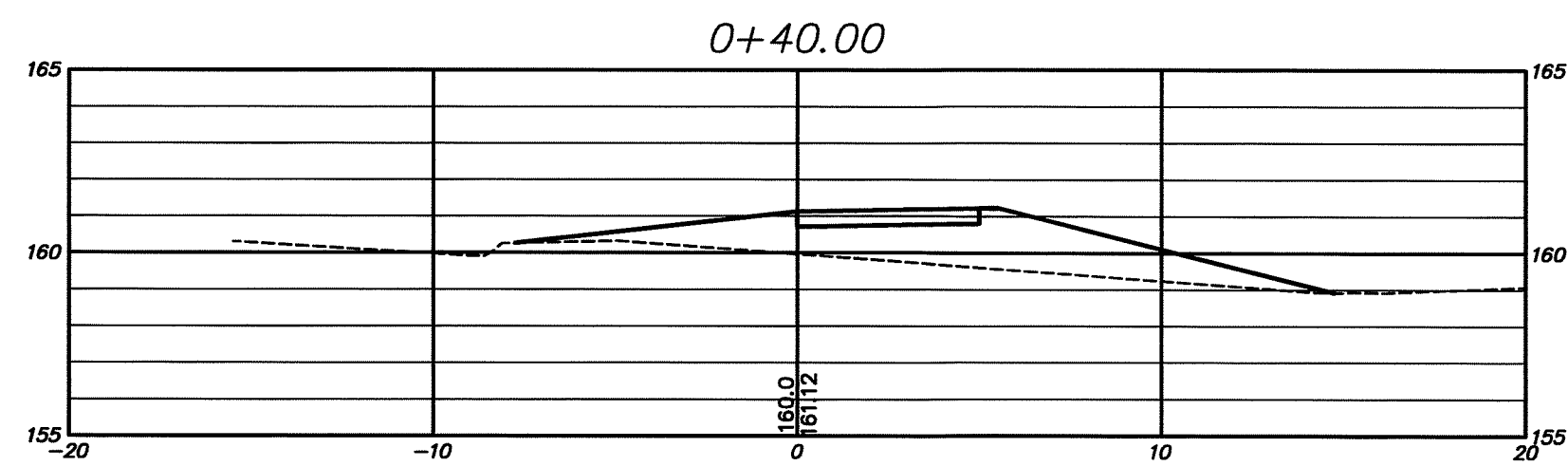
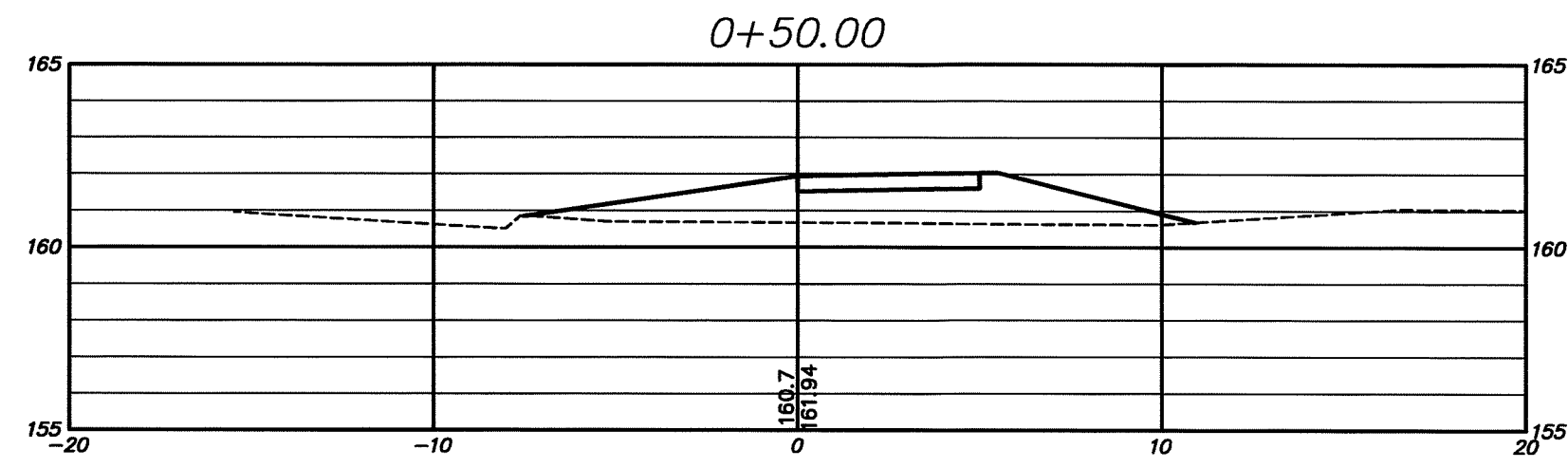
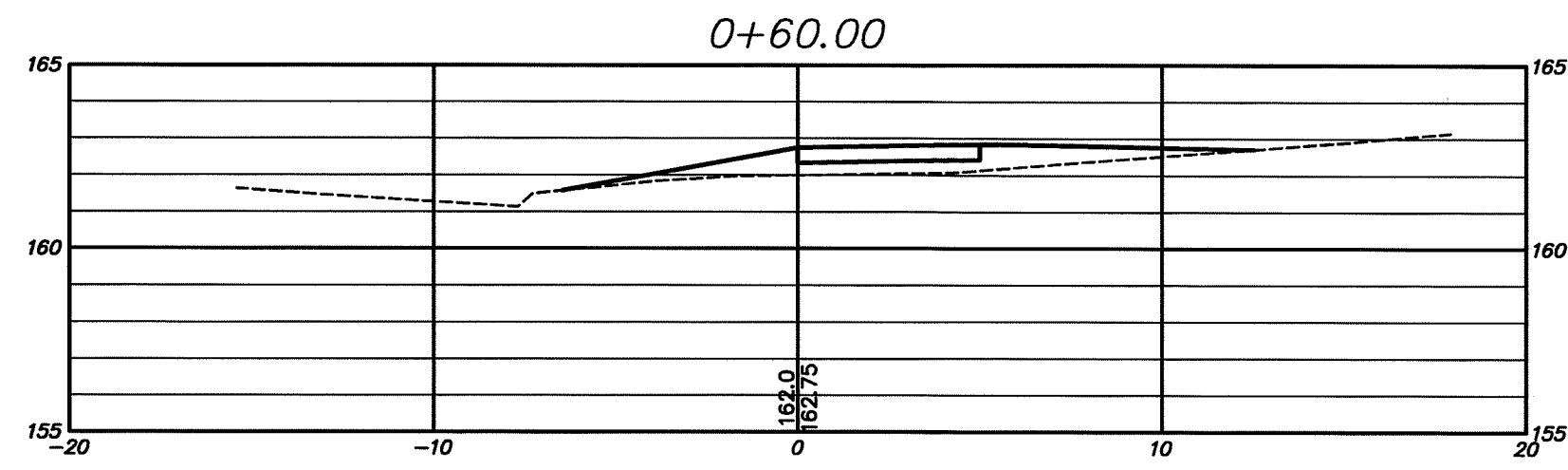
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P.W. 1903

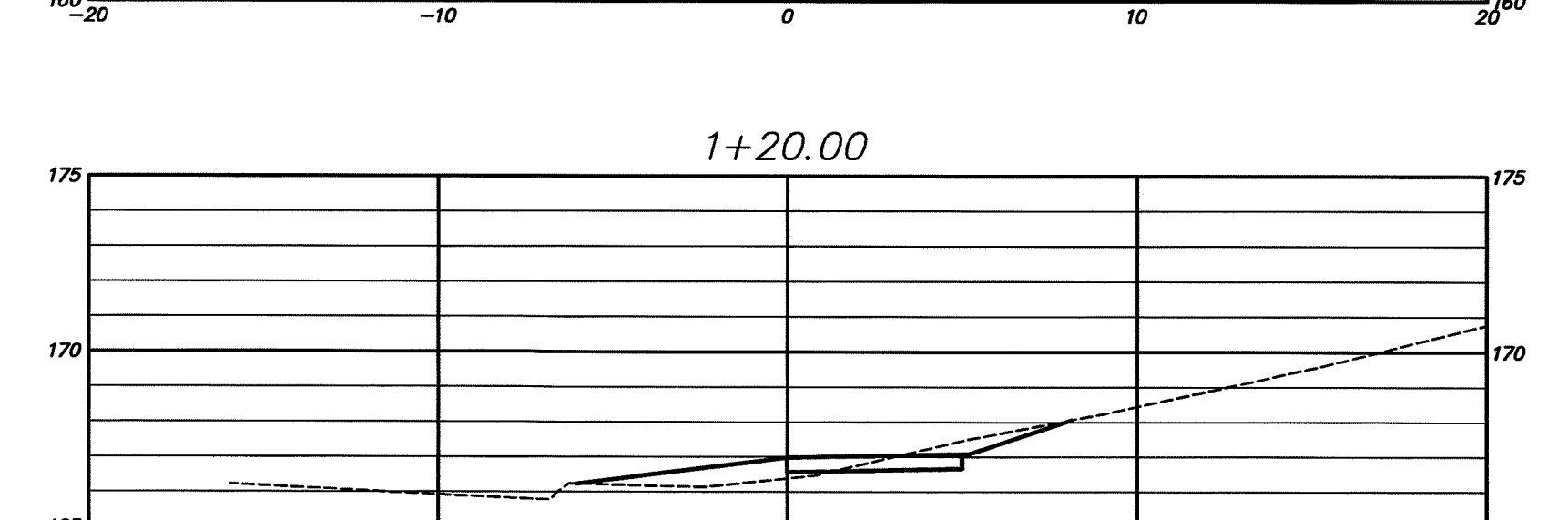
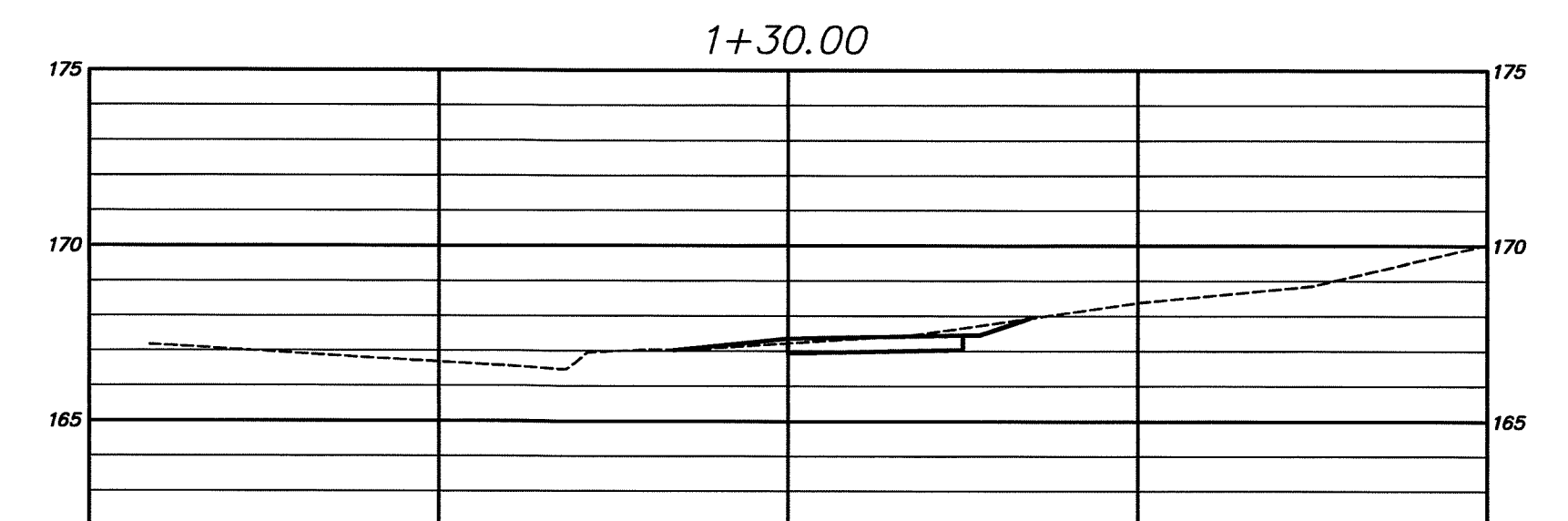
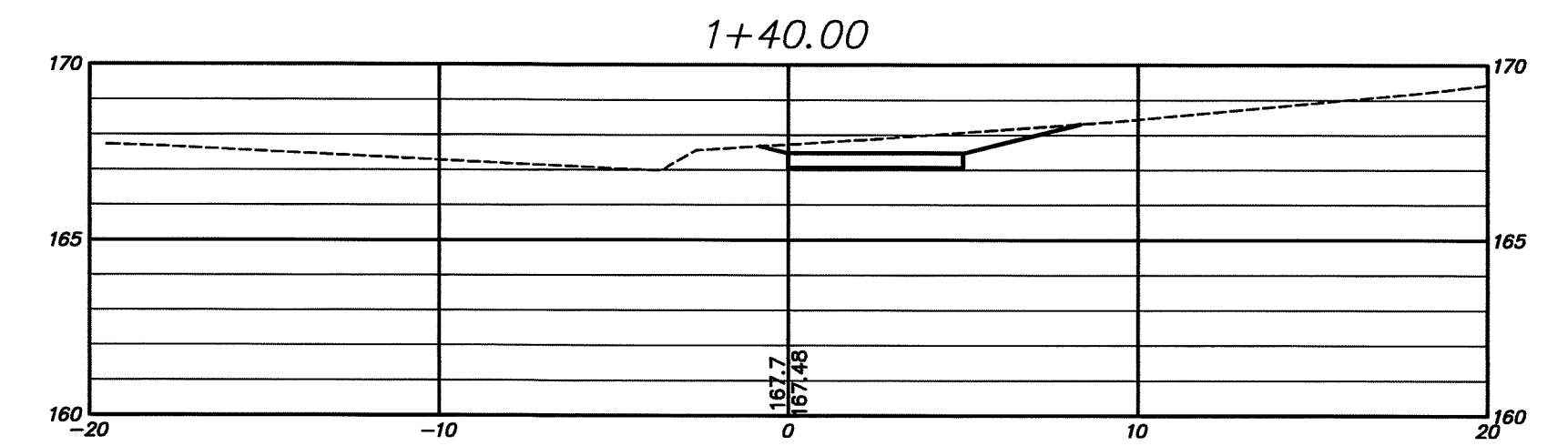
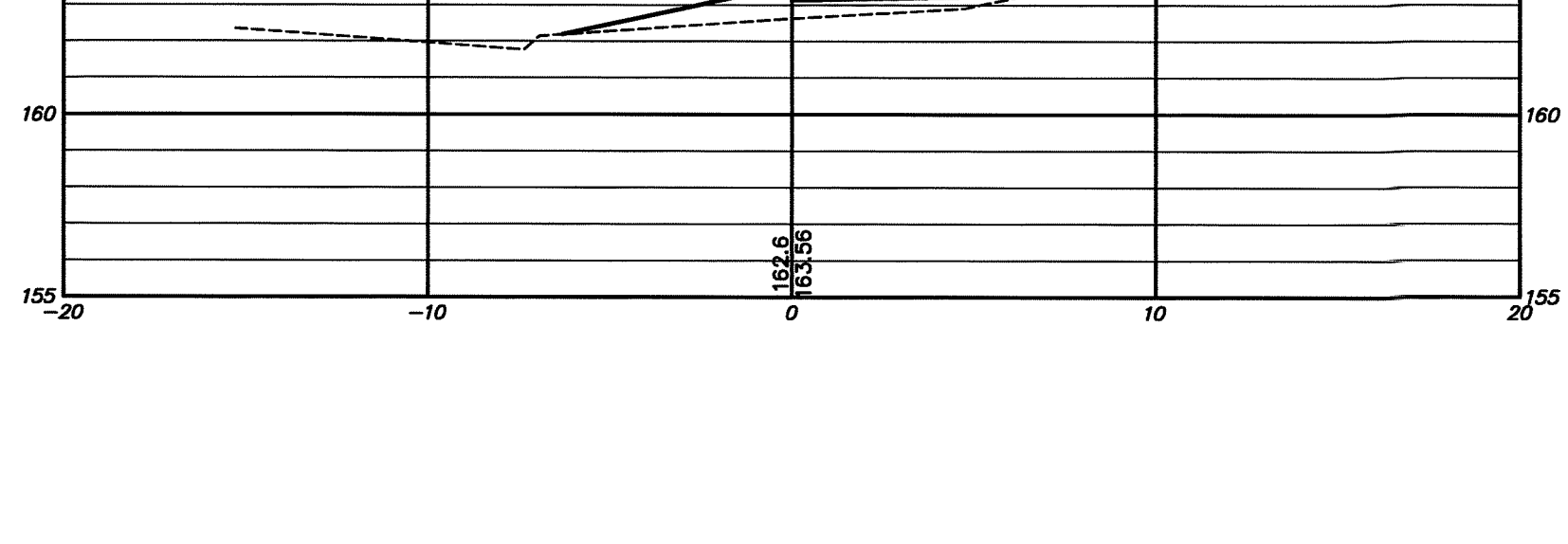
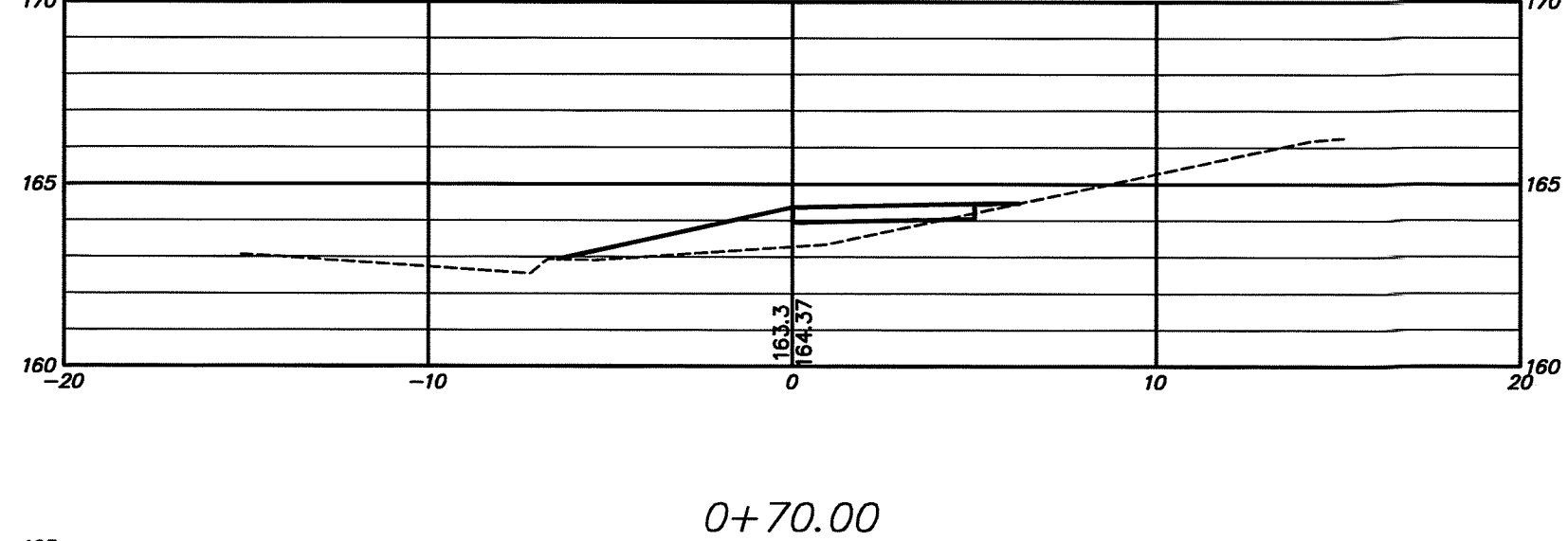
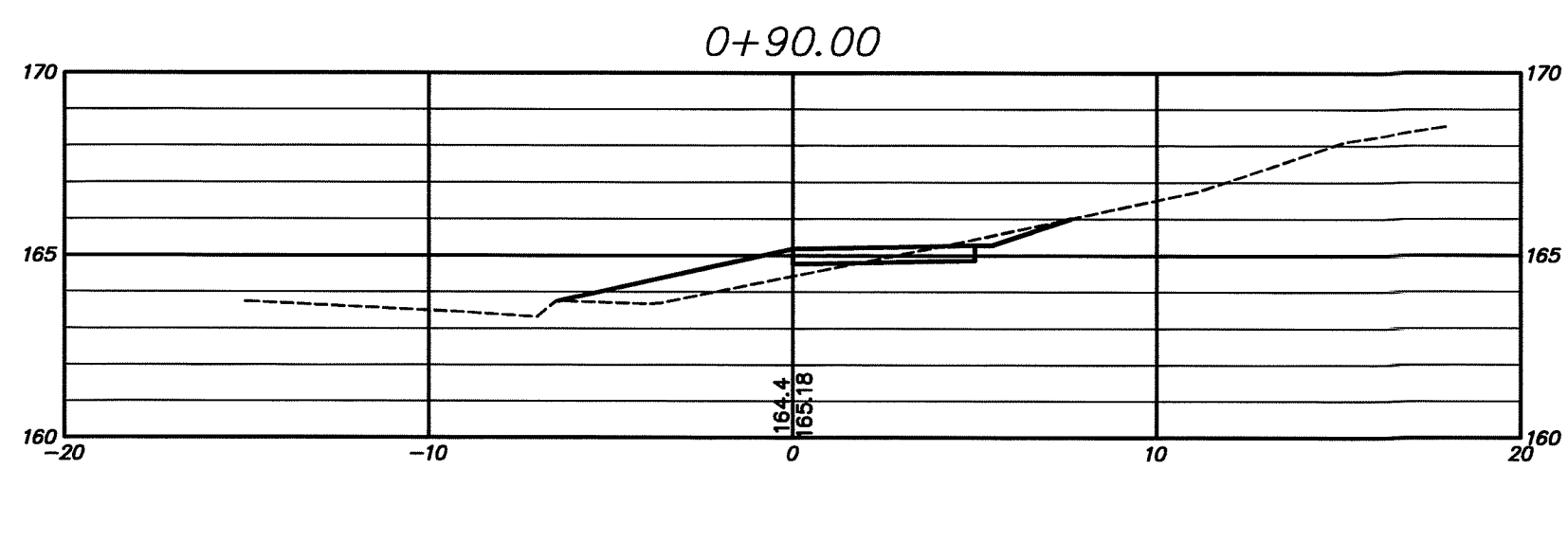
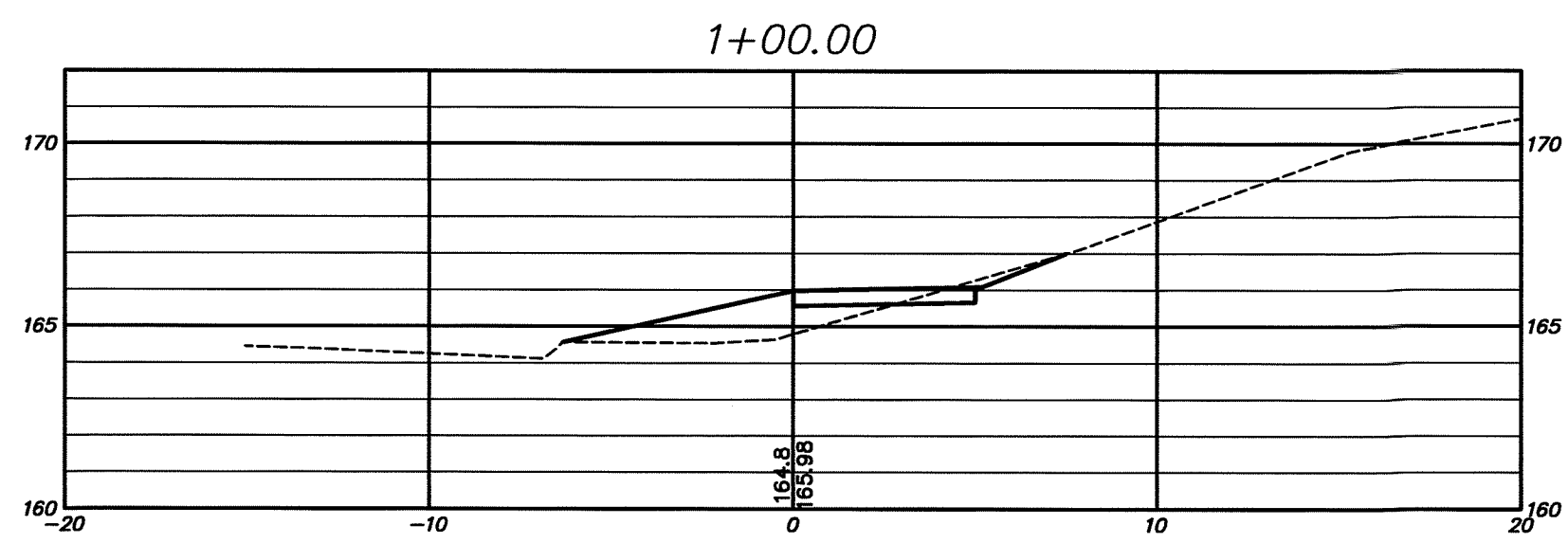
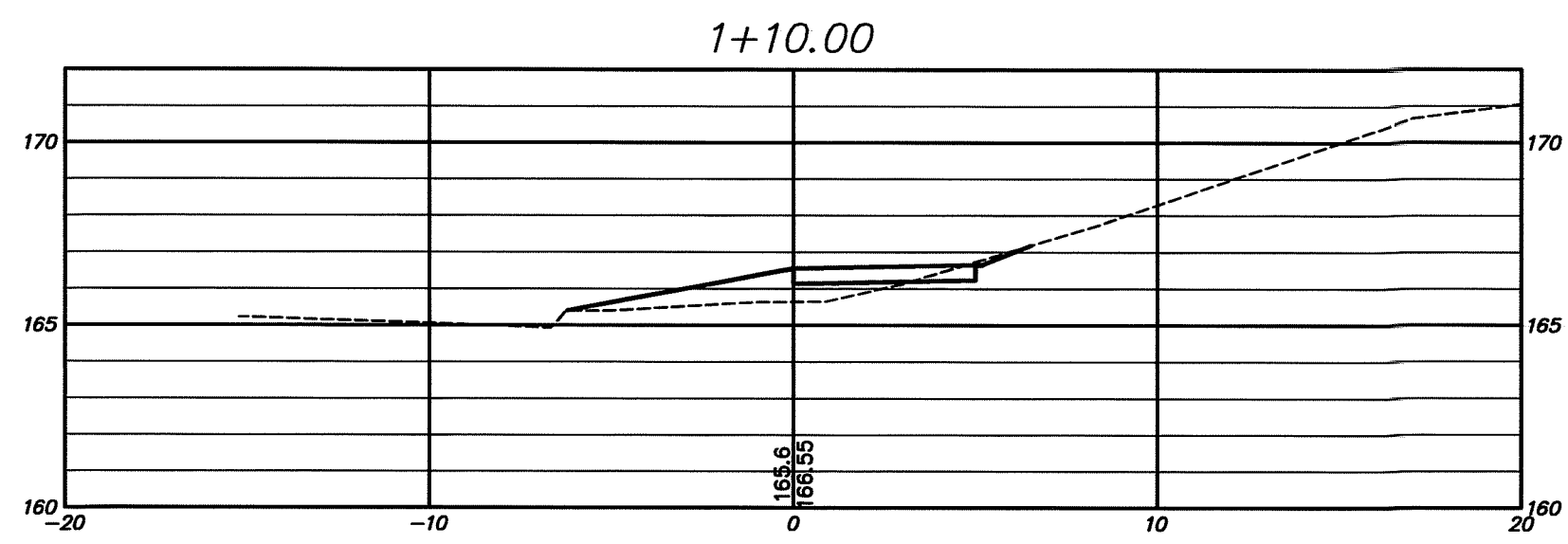
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FILE: H:\DWG\Streets\East Carriage Drive\339 EAST CARRIAGE DRIVE SIDEWALK EASEMENT 04-09-2019\DWG: 1815 New London Tpk Sidewalk at East Carriage Plan - Pk.dwg USER: Steven Troy DATE: 2/20/2020

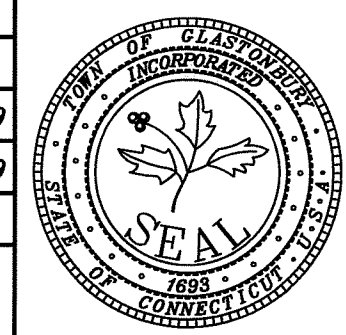


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		DRAWN BY: S.Troy	6-8-2019
		CHECKED BY: S.M.B.	8-15-2019
		APPROVED BY: D.A.P.	8-15-2019
		ST. FILE:	
1.	ISSUED FOR CONSTRUCTION	2-20-2020	
NO.	DESCRIPTION	DATE	



SECTIONS DEPICTING
PROPOSED SIDEWALKS
ON
NEW LONDON TURNPIKE
AND
EAST CARRIAGE DRIVE
GLASTONBURY, CONNECTICUT

SHEET NO.
9
OF 9