TOWN OF GLASTONBURY
ENGINEERING DIVISION
PW-2109

CONTRACT DOCUMENTS

FOR

RIVERFRONT COMMUNITY CENTER PICKLEBALL COURTS

BID # GL-2022-10

ADVERTISED ON: JULY 29, 2021

BID DUE DATE: AUGUST 13, 2021

TOWN OF GLASTONBURY

INVITATION TO BID

BID #	ITEM	DATE & TIME REQUIRED
GL-2022-10	Riverfront Community Center Pickleball Courts	AUGUST 13, 2021 at 11:00 A.M.

The Town of Glastonbury will receive on-line Bids for the construction of a four (4) court bituminous surface pickleball court facility and associated drainage infrastructure located at the Riverfront Community Center 300 Welles Street in Glastonbury.

Bidders wishing to submit a bid proposal for this solicitation are directed to respond online through a secure e-Procurement portal. Responses can be submitted at the following link: https://app.negometrix.com/buyer/2832, under the bid title **"*GL-2022-10 - Riverfront Community Center Pickleball Courts*"**. All bids will be publicly opened and read aloud. **No late bids will be accepted**.

This Invitation to Bid, Instructions to Bidders, Drawings, Specifications and other Bidding Documents (as defined in the Instruction to Bidders) are available for viewing and downloading on the Town of Glastonbury website www.glastonburyct.gov or the State's website at www.das.state.ct.us at no cost.

Each Bid must be accompanied by a bid security in the form of a Bid Bond, certified in an amount not less than 10% of the base bid except as otherwise expressly provided in the Instruction to Bidders. The successful bidder will be required to provide performance and labor and material payment bonds in the full amount of the agreed contract price.

Bidders are further advised that this project is subject to the prevailing wage requirements of Connecticut General Statutes Section 31-53.

Bidders are also hereby alerted to the schedule requirements as outlined in Special Conditions Section 11.00.

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

The Town reserves the right to amend or withdraw this Invitation to Bid for any reason, to accept or reject any or all Bids, to waive any informalities or non-material deficiencies in any Bid, and to make such award (or make no award) of a contract in connection with this Invitation to Bid all as determined by the Town, in its discretion, to be in the best interest of the Town. A Bid may be rejected for irregularities of any kind, including without limitation, alteration of form, additions not called for, conditional proposals, and incomplete Bids. A Bid may also be rejected if, in the opinion of the Town, the Bid does not meet the standard of quality established by the Bidding Documents. Any or all Bids may be rejected if there is any reason to believe that collusion exists among two or more Bidders. The foregoing provisions are for illustrative purposes and shall in no way limit the right of the Town to reject any and all Bids, in whole or in part.

Mary F. Visone

Purchasing Agent

TABLE OF CONTENTS **SECTION**

1. Bidders submitting a response for this solicitation are directed to respond online through a secure e-Procurement portal. Bids can be submitted at the following link: https://app.negometrix.com/buyer/2832 under the bid title **"*GL-2022-10 - Riverfront Community Center Pickleball Courts*"**. Bidders will be required to create a profile before submitting their bid. Step-by-step instructions on how to register as a vendor are available at this website:

   https://help.negometrix.com/en/support/solutions/articles/9000177626-register-on-negometrix4

   Bidders will be required to upload their bid response in **one consolidated pdf document** in the following file located in the bid portal:

   - Bid Response & Related Documents

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. 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.

6. 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.

7. 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.

8. 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.

9. Each electronic bid submission must be accompanied by a COPY of the bid bond payable to the Town for ten percent (10%) of the total amount of the bid. Original bid bonds from all respondents must be mailed to the attention of the Purchasing Agent immediately (within 24 hours) following the virtual bid opening at the following address: Town of Glastonbury, PO Box 6523, Glastonbury, CT 06033-6523, Attn: Mary F. Visone, Purchasing Agent. 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.

10. 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.

11. 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 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 Connecticut 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.

12. 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.

13. 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.

14. 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-1). 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.glastonburyct.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.

15. **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).**

16. 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.

17. 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.

18. **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.

19. 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.

20. **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:

"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 ***"GL-2022-10 - Riverfront Community Center Pickleball Courts".***

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."

21. Any technical questions regarding this bid shall be made in writing (email acceptable) and directed to Daniel A. Pennington, P.E. Town Engineer / Manager of Physical Services, 2155 Main Street, PO Box 6523, Glastonbury, CT 06033; daniel.pennington@glastonbury-ct.gov. Telephone (860) 652-7736 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, by email to 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 five (5) 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.**

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.

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 Town Engineer/Manager of Physical Services of the Town of Glastonbury acting personally or 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.

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.

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. Such barriers including temporary construction fence as directed by the Engineer, shall not be measured for payment, but rather included in the general cost of the work. Temporary signage shall be measured for payment under the Construction Signs pay item.

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 Re-inspection 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 re-inspection 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.

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.

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 818 (Form 818) latest edition including supplements thereto dated January 2021, are the governing specifications and are to be considered part of the Contract Documents. The Form 818 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 818, the matter shall immediately be submitted to the Engineer. The Engineer shall have sole authority in resolving any discrepancies.

01.03 **Contaminated Soil Area:** Adjacent to the project area depicted on the construction plans is an existing area of contaminated soil buried approximately 4 feet below existing grade which shall remain undisturbed at all times during Contractor operations for this project. Prior to the commencement of construction on this project, Town of Glastonbury personnel will field stake the limits of this area. Any disturbance within this area shall be repaired to its original state by the Contractor at no expense to the Town.

01.04 **Construction Access:** Contractor is required to utilize the existing gravel walking path traversing to Naubuc Avenue for construction access and deliveries to the site. Contractor is responsible for repairs to the existing gravel surface to its original state at no cost to the Town. Contractor is required to perform daily inspections pertaining to vehicle tracking of debris onto Naubuc Avenue and sweep and clean the roadway as required.

01.05 **Riverfront Community Events:** Contractor shall be aware of any events scheduled at this facility in the vicinity of project. The events calendar for this facility is located at https://glastonburyct.myrec.com/info/calendar/default.aspx?FacilityID=14822&AreaID=0. The Glastonbury Apple Harvest Festival is scheduled for October 15, 2021 thru October 17, 2021 from 7am to 8:30pm each day. During this timeframe, if construction activity is not complete, the Contractor will be required to secure the site using 4' tall orange construction fence, clean up and organize the work area to remove stockpiled material or debris, and cease work on the project during this time period. Contractor is required to provide a safe, secure site at the end of each work day to prevent public intrusion during construction.

01.06 **Pickleball Court Asphalt Surface:** Contractor shall be aware of the paving tolerances of 0.83% to 1.0% end to end or side to side for this project. Contractor is responsible to adjust their means and methods to achieve a uniform surface at the intended slopes per construction plans. Pavement rolling shall start as soon as the HMA can be compacted without displacement. Rolling shall continue until the HMA is thoroughly compacted and all

roller marks have disappeared. HMA shall be compacted to a minimum in-place density of 94.0% of the Theoretical Maximum Specific Gravity.

01.07 ALLOWABLE HOURS OF OPERATION (WORK PERIOD): All work within this contract shall be performed Monday through Friday between the hours of 7:00AM and 5:00PM. Work on weekends or Holidays will only be with approval by the Engineer.

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 the State of Connecticut and their 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 each employee
- A Waiver of Subrogation shall be provided

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

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

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 State and 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 the State of Connecticut 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.

http://38.106.4.108/departments/department-directory-l-z/refuse-disposal/bulky-waste-facility

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 Energy and 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 with respect to defects, settlements, etc. for a minimum period of one-year following the date of final acceptance of the project by the Town.

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 or for any work related to 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 substantially completed within 45 calendar days.

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.**

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 included as Attachment C entitled "Pickleball Courts located at Riverfront Community Center 300 Welles Street Glastonbury, Connecticut", including two (2) sheets prepared by the Town of Glastonbury Engineering Division 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 Contractor is responsible to provide stake-out of the work in accordance with the plans and specification under the item for "Construction Surveying". A bench mark will be installed near the project location for use by the contractor.

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

16.01 All salvable materials, including traffic signal equipment, 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 delivered to the Town Highway Garage located at 2380 New London Turnpike. 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 Limitations on work hours are described in the Prosecution and Progress Special Provision. The Contractor shall understand and strictly comply with these limitations. 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.

18.00 COMPLIANCE WITH ENVIRONMENTAL PERMITS

18.01 A Town of Glastonbury Inland Wetland Permit was required for this project and is included as Attachment B. By submitting a bid, the Contractor confirms that they have read and are familiar with all of the required conditions of this permit, that all costs associated with compliance with all conditions of the permits are included in their bid, and that they will conduct the work in a manner consistent with all permit requirements.

18.02 A Town Plan and Zoning Commission Flood Zone Special Permit was also required for this project. This permit requires no net fill in the Flood Zone of the Connecticut River as described on the construction plans and elsewhere in the bid documents. A copy of this permit will be provided at the preconstruction meeting.

19.00 EXTRA WORK AND RETAINAGE

19.01 Extra and cost plus work shall be governed by Article 1.04.05 and Article 1.09.04 of the Form 818.

19.02 Article 1.09.06, Part A, Item 1 of the Form 818 is hereby modified as follows: Retainage shall be withheld in the amount of five (5) percent. Release of retainage shall be made upon final acceptance of the project by the Town.

20.00 SUBMITTALS AND MATERIALS TESTING

20.01 Contractor shall provide shop drawings, materials certificates, material samples, and other submittals for material testing in conformance with these specifications. A list of required submittals is located in Section 1.06- Control of Materials of these specifications.

TOWN OF GLASTONBURY			
BID / PROPOSAL	**GL # 2022-10**		
DATE ADVERTISED	**JULY 29, 2021**	**DATE / TIME DUE**	**AUGUST 13, 2021 at 11:00 A.M.**
NAME OF PROJECT	**RIVERFRONT COMMUNITY CENTER PICKLEBALL COURTS**		

IT IS 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, AS REQUIRED:

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 a copy of the Bid Bond as per Section 10 of the Information for Bidders. Original Bond to be mailed as specified herein.

_____ 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 20 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 21 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. Prepared ONE consolidated pdf file for on-line bid submission.

BIDDER NAME:_____

BIDDER NAME:_____

LINE NO.	ITEM NO.		ITEM DESCRIPTION	UNIT	QTY	UNIT PRICE	EXT
1	0201001	A	Clearing and Grubbing	LS	1		
2	0202000	A	Earth Excavation	LS	1		
3	0209001		Formation of Subgrade	SY	975		
4	0210019	A	Stone Infiltration Trench	LS	1		
5	0212300	A	Process Stone Base	CY	218		
6	0219003		Sedimentation Control Filter Fabric Fence System	LF	265		
7	0406172		HMA S0.375	Ton	168		
8	0406236		Material for Tackcoat	Gal	98		
9	0703012		Modified Rip Rap	CY	2		
10	0751711	A	6 Inch Polyvinyl Chloride Underdrain	LF	400		
11	0913043	A	8’ Polyvinyl Chloride Chain Link Fence	LF	380		
12	0913331	A	Double Leaf Chain Link Fence Swing Gate	EA	1		
13	09133332	A	Single Leaf Chain Link Fence Swing Gate	EA	2		
14	0921040	A	Stone Dust Court Edge	SF	400		
15	0944000	A	Furnish and Placing Topsoil	SY	278		
16	0950005	A	Turf Establishment	SY	278		
17	0950017	A	Turf Establishment- Wetland Wildflower Mix	SY	139		
18	0980020		Construction Surveying	LS	1		
19	1401001	A	Pickleball Court Surface Treatment	SY	975		
20	1401002	A	Pickleball Court Line Marking	EA	4		
21	1401003	A	Pickleball Net Post	EA	8		
22	1401004	A	Pickleball Net	EA	4		

BIDDER NAME:_____

TOTAL BID AMOUNT: $_____
(Numeric)

WRITTEN TOTAL BID AMOUNT:_____

Note:
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.

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.**

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.

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

SPECIAL PROVISIONS

INDEX TO SPECIAL PROVISIONS

This index has been prepared for the convenience of those using this contract with the sole express purpose of locating quickly the information contained herein; and no claims shall arise due to omissions, additions, deletions, etc., as this index shall not be considered part of the contract.

NOTICE TO CONTRACTOR - PROTECTION AND COORDINATION OF EXISTING UTILITIES

Existing utilities shall be maintained during construction except as specifically stated herein and/or noted on the plans and as coordinated with the utilities. The Contractor shall verify the location of underground, structure mounted and overhead utilities. Construction work within the vicinity of utilities shall be performed in accordance with current safety regulations.

The Contractor shall notify "Call Before You Dig", telephone: 8-1-1 or 1-800-922-4455 for the location of public utility, in accordance with Section 16-345 of the Regulations of the Department of Utility Control.

Representatives of the various utility companies shall be provided access to the work, by the Contractor.

Contractors are cautioned that it is their responsibility to verify locations, conditions, and field dimensions of all existing features, as actual conditions may differ from the information shown on the plans or contained elsewhere in the specifications.

The Contractor shall notify the Engineer prior to the start of work and shall be responsible for all coordination with the Town. The Contractor shall allow the Engineer complete access to the work.

The Contractor shall be liable for all damages or claims received or sustained by any persons, corporations or property in consequence of damage to the existing utilities, their appurtenances, or other facilities caused directly or indirectly by the operations of the Contractor.

Any damage to any existing private and public utility, as a result of the Contractors operations, shall be repaired to the utility's and Engineer's satisfaction at no cost to the Town or the Utilities, including ail materials, labor, etc., required to complete the repairs.

The Contractor's attention is directed to the requirements of Section 1.07.13 - "Contractor's Responsibilities for Adjacent Property and Services".

Prior to opening an excavation, effort shall be made to determine whether underground installations, i.e., water, sanitary, gas, electric ducts, communication ducts, 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 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, as noted above.

The Contractor shall coordinate all utility relocations with the respective utility company. The Contractor shall notify Connecticut Natural Gas two weeks in advance of the required gas valve box adjustments as shown on the plans.

NOTICE TO CONTRACTOR – UTILITY COMPANIES

It is understood that any references in the contract documents to Northeast Utilities, CL&P and/or Yankee Gas are meant to refer to Eversource.

It is understood that any references in the contract documents to AT&T is meant to refer to Frontier Communications.

SECTION 1.05 CONTROL OF WORK

Article 1.05.05 – Cooperation by Contractor

Add the following:

Agents of various public service agencies, municipal and State Departments, and private site contractors may be entering on the work site to remove existing utilities, to construct or place new facilities or to make alterations to existing facilities.

The Contractor shall perform the work in cooperation with the various agencies in a manner which causes the least interference with the operations of the aforementioned agencies and shall have no claim for delay which may be due to, or result from, said work of these agents.

Article 1.05.06 – Cooperation with Utilities

Add the following:

Written notice shall be given by the Contractor to all public service corporations or municipal and State Officials owning or having charge of publicly or privately owned utilities 30 days in advance of the commencement of operations that will affect the utilities. The Contractor shall, at the same time, file a copy of such notice with the Engineer.

The utility company representatives listed in Section 1.07 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.

The Contractor shall make his/her own investigation to assure that no damage to existing structures, drainage lines, traffic signal conduits, and other utilities will occur as a result of construction operations.

The Contractor shall notify “Call Before You Dig” at 1-800-922-4455, 72 hours prior to disturbing ground in any way.

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. Processed Stone Base
2. Stone Dust
3. Non-Woven Geotextile Fabric (Drainage)
4. Silt Fence
5. HMA S0.375
6. 2" Washed Crushed Stone (Stone Infiltration Trench)
7. ¾" Washed Crushed Stone (Underdrain)
8. 6" and 8" Perforated and Solid PVC Pipe and Fittings
9. 6" Riser Grates
10. 12" Drain Basin with Drop In Grate
11. Modified Rip Rap
12. 8' High Polyvinyl Chloride Chain Link Fence and Gates
13. Pickleball Court Surface Treatment
14. Pickleball Court Line Marking
15. Pickleball Net Post
16. Pickleball Nets
17. Turf Establishment Seed Mix
18. Turf Establishment Wetland Wildflower Mix

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.

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:

Connecticut Natural Gas Corporation, Engineering Department
Mr. Jonathan Gould,
Gas Engineer
76 Meadow Street, 2nd Floor
East Hartford, CT 06108
(860) 727-3044
jgould@ctgcorp.com

Algonquin Gas Transmission Company dba Enbridge
Mr. Kenneth Ruel,
Area Supervisor
252 Shunpike Road
Cromwell, CT 06416
Phone: (860) 894-1600 EXT: 1608
kenneth.ruel@enbridge.com

Frontier Communications
Ms. Lynne DeLucia,
Manager – Engineering & Construction
1441 North Colony Road
Meriden, CT 06450-4101
Phone: 203-238-5000
Mobile: 860-967-4389
Lynne.m.delucia@ftr.com

CoxCom, Inc.
Ms. Denise Mazzoli,
Project Planner
170 Utopia Road
Manchester, CT 06042
Phone: (860) 432-5041
denise.mazzoli@cox.com

Eversource Energy - Electric Distribution
Mr. Thomas Woronik
Supervisor - Construction Engineering
22 East High Street
East Hampton, CT 06424
Phone: (860) 267-3891
thomas.woronik@eversource.com

Lightower Fiber Networks dba Crown Castle Fiber
Mr. Eric Clark,
Manager Fiber Construction
1781 Highland Avenue, Suite 102
Cheshire, CT 06410
Phone: (203) 649-3904
Mobile: 860-863-8311
Eric.clark@crowncastle.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

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

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 Phone: (860) 652-7743 Email: Stephen.braun@glastonbury-ct.gov
Glastonbury Police Department 2108 Main Street Glastonbury, CT. 06033	Police Department Watch Commander Phone: (860) 633-8301
Glastonbury Park & Recreation 2143 Main Street Glastonbury, CT. 06033	Lisa Zerio Director of Parks & Recreation Phone: (860) 652-7687 Email: lisa.zerio@glastonbury-ct.gov
Glastonbury Tree Warden 2143 Main Street Glastonbury, CT. 06033	Gregory Foran Superintendent of Parks and Recreation/Tree Warden Phone: (860) 652-7686 Email: Gregory.foran@glastonbury-ct.gov
Glastonbury Highway Department 2380 New London Turnpike Glastonbury, CT. 06033	Charles Mahan Physical Services Operations Manager Phone: (860) 652-7750 Email: charles.mahan@glastonbury-ct.gov
Glastonbury Sanitation Department 2149 Main Street Glastonbury, CT. 06033	Michael J. Bisi Superintendent of Sanitation Phone: (860) 652-7774 Email: charles.mahan@glastonbury-ct.gov

SECTION 4.06 BITUMINOUS CONCRETE

Section 4.06 is being deleted in its entirety and replaced with the following:

Note: Any sections with crossed out text (~~example crossed out text~~) **do not apply to this project.**

4.06.01—Description
4.06.02—Materials
4.06.03—Construction Methods
1. **Material Documentation**
2. **Transportation of Mixture**
3. **Paving Equipment**
4. **Test Section**
5. **Transitions for Roadway Surface**
6. **Spreading and Finishing of Mixture**
7. **Longitudinal Joint Construction Methods**
8. **Contractor Quality Control (QC) Requirements**
9. **Temperature and Seasonal Requirements**
10. **Field Density**
11. **Acceptance Sampling and Testing**
12. **Density Dispute Resolution Process**
13. **Corrective Work Procedure**
14. **Protection of the Work**
15. **Cut Bituminous Concrete Pavement**

4.06.04—Method of Measurement
4.06.05—Basis of Payment

4.06.01—Description: Work under this Section shall include the production, delivery, placement and compaction of a uniform textured, non-segregated, smooth bituminous concrete pavement to the grade and cross section shown on the plans.

The following terms as used in this specification are defined as:

Bituminous Concrete: A composite material consisting of prescribed amounts of asphalt binder and aggregates. Asphalt binder may also contain additives engineered to modify specific properties and/or behavior of the composite material. References to bituminous concrete apply to all of its forms, such as those identified as hot-mix asphalt (HMA) or polymer-modified asphalt (PMA).

Bituminous Concrete Plant (Plant): A structure where aggregates and asphalt binder are combined in a controlled fashion into a bituminous concrete mixture suitable for forming pavements and other paved surfaces.

Course: A continuous layer (a lift or multiple lifts) of the same bituminous concrete mixture placed as part of the pavement structure.

Density Lot: The total tonnage of all bituminous concrete placed in a single lift which are:
PWL density lots = When the project total estimated quantity per mixture is larger than 3,500 tons
Simple Average density lots = When the project total estimated quantity per mixture is 3,500 tons or less

Disintegration: Erosion or fragmentation of the pavement surface which can be described as polishing, weathering-oxidizing, scaling, spalling, raveling, or formation of potholes.

Dispute Resolution: A procedure used to resolve conflicts between the Engineer and the Contractor's results that may affect payment.

Hot Mix Asphalt (HMA): A bituminous concrete mixture typically produced at 325°F.

Job Mix Formula (JMF): A recommended aggregate gradation and asphalt binder content to achieve the required mixture properties.

Lift: An application of a bituminous concrete mixture placed and compacted to a specified thickness in a single paver pass.

Percent Within Limits (PWL): The percentage of the lot falling between the Upper Specification Limit (USL) and the Lower Specification Limit (LSL).

Polymer Modified Asphalt (PMA): A bituminous concrete mixture containing a polymer-modified asphalt binder and using a qualified warm mix technology.

Production Lot: The total tonnage of a bituminous concrete mixture from a single source that may receive an adjustment.

Production Sub Lot: Portion of the production lot typically represented by a single sample.

Quality Assurance (QA): All those planned and systematic actions necessary to provide CTDOT the confidence that a Contractor will perform the work as specified in the Contract.

Quality Control (QC): The sum total of activities performed by the vendor (Producer, Manufacturer, and Contractor) to ensure that a product meets contract specification requirements.

Superpave: A bituminous concrete mix design used in mixtures designated as “S*” Where “S” indicates Superpave and * indicates the sieve related to the nominal maximum aggregate size of the mix.

Segregation: A non-uniform distribution of a bituminous concrete mixture in terms of gradation, temperature, or volumetric properties.

Warm Mix Asphalt (WMA) Technology: A qualified additive or technology that may be used to produce a bituminous concrete at reduced temperatures and/or increase workability of the mixture.

4.06.02—Materials: All materials shall meet the requirements of Section M.04.

1. Materials Supply: The bituminous concrete mixture must be from one source of supply and originate from one Plant unless authorized by the Engineer.

2. Recycled Materials: Reclaimed Asphalt Pavement (RAP), Crushed Recycled Container Glass (CRCG), Recycled Asphalt Shingles (RAS), or crumb rubber (CR) from recycled tires may be incorporated in bituminous concrete mixtures in accordance with Project Specifications.

4.06.03—Construction Methods

1. Material Documentation: All vendors producing bituminous concrete must have Plants with automated vehicle-weighing scales, storage scales, and material feeds capable of producing a delivery ticket containing the information below.

a. State of Connecticut printed on ticket.
b. Name of Producer, identification of Plant, and specific storage silo if used.
c. Date and time.
d. Mixture Designation, mix type and level. Curb mixtures for machine-placed curbing must state "curb mix only."
e. If WMA Technology is used, “-W”must be listed following the mixture designation.
f. Net weight of mixture loaded into the vehicle. (When RAP and/or RAS is used, the moisture content shall be excluded from mixture net weight.)
g. Gross weight (equal to the net weight plus the tare weight or the loaded scale weight).
h. Tare weight of vehicle (daily scale weight of the empty vehicle).
i. Project number, purchase order number, name of Contractor (if Contractor other than Producer).

j. Vehicle number - unique means of identification of vehicle.
k. For Batch Plants: individual aggregate, recycled materials, and virgin asphalt max/target/min weights when silos are not used.
l. For every mixture designation: the running daily and project total delivered and sequential load number.

The net weight of mixture loaded into the vehicle must be equal to the cumulative measured weights of its components.

The Contractor must notify the Engineer immediately if, during production, there is a malfunction of the weight recording system in the automated Plant. Manually written tickets containing all required information will be allowed for no more than 1 hour.

The State reserves the right to have an Inspector present to monitor batching and/or weighing operations.

2. Transportation of Mixture: The mixture shall be transported in vehicles that are clean of all foreign material, excessive coating or cleaning agents, and that have no gaps through which material might spill. Any material spilled during the loading or transportation process shall be quantified by re-weighing the vehicle. The Contractor shall load vehicles uniformly so that segregation is minimized. Loaded vehicles shall be tightly covered with waterproof covers acceptable to the Engineer. Mesh covers are prohibited. The cover must minimize air infiltration. Vehicles found not to be in conformance shall not be loaded

Vehicles with loads of bituminous concrete being delivered to State projects must not exceed the statutory or permitted load limits referred to as gross vehicle weight (GVW). The Contractor shall furnish a list and allowable weights of all vehicles transporting mixture. The State reserves the right to check the gross and tare weight of any vehicle. If the gross or tare weight varies from that shown on the delivery ticket by more than 0.4%, the Engineer will recalculate the net weight. The Contractor shall correct the discrepancy to the satisfaction of the Engineer.

If a vehicle delivers mixture to the Project and the delivery ticket indicates that the vehicle is overweight, the load may not be rejected but a “Measured Weight Adjustment” will be taken in accordance with Article 4.06.04.

Vehicle body coating and cleaning agents must not have a deleterious effect on the mixture. The use of solvents or fuel oil, in any concentration, is prohibited for the coating of vehicle bodies.

For each delivery, the Engineer shall be provided a clear, legible copy of the delivery ticket.

3. Paving Equipment: The Contractor shall have the necessary paving and compaction equipment at the Project Site to perform the work. All equipment shall be in good working order and any equipment that is worn, defective, or inadequate for performance of the work shall be repaired or replaced by the Contractor to the satisfaction of the Engineer. During the paving operation, the use of solvents or fuel oil, in any concentration, is strictly prohibited as a release agent or cleaner on any paving equipment (i.e., rollers, pavers, transfer devices, etc.).

Refueling or cleaning of equipment is prohibited in any location on the Project where fuel or solvents might come in contact with paved areas or areas to be paved. Solvents used in cleaning mechanical equipment or hand tools shall be stored clear of areas paved or to be paved. Before any such equipment and tools are cleaned, they shall be moved off of areas paved or to be paved.

Pavers: Each paver shall have a receiving hopper with sufficient capacity to provide for a uniform spreading operation and a distribution system that places the mix uniformly, without segregation. The paver shall be equipped with and use a vibratory screed system with heaters or burners. The screed system shall be capable of producing a finished surface of the required evenness and texture without tearing, shoving, or gouging the mixture. Pavers with extendible screed units as part of the system shall have auger extensions and tunnel extenders as necessary. Automatic screed controls for grade and slope shall be used at all times unless otherwise authorized by the Engineer. The controls shall automatically adjust the screed to

compensate for irregularities in the preceding course or existing base. The controls shall maintain the proper transverse slope and be readily adjustable, and shall operate from a fixed or moving reference such as a grade wire or floating beam (minimum length 20 feet).

Rollers: All rollers shall be self-propelled and designed for compaction of bituminous concrete. Roller types shall include steel wheeled, pneumatic, or a combination thereof. Rollers that operate in a dynamic mode shall have drums that use a vibratory or oscillatory system or combination. Vibratory rollers shall be equipped with indicators for amplitude, frequency, and speed settings/readouts to measure the impacts per foot during the compaction process. Oscillatory rollers shall be equipped with frequency indicators. Rollers can operate in the dynamic mode using the oscillatory system on concrete structures such as bridges and catch basins if at the lowest frequency setting.

Pneumatic tire rollers shall be equipped with wide-tread compaction tires capable of exerting an average contact pressure from 60 to 90 psi uniformly over the surface. The Contractor shall furnish documentation to the Engineer regarding tire size, pressure and loading to confirm that the proper contact pressure is being developed and that the loading and contact pressure are uniform for all wheels.

~~**Lighting:** For paving operations which will be performed during hours of darkness the paving equipment shall be equipped with lighting fixtures as described below or with an approved equal. Lighting shall minimize glare to passing traffic. The lighting options and minimum number of fixtures are listed in Tables 4.06-1 and 4.06-2.~~

~~**TABLE4.06-1: Minimum Paver Lighting**~~

~~Option~~	~~Fixture Configuration~~	~~Fixture Quantity~~	~~Requirement~~
~~1~~	~~Type A~~	~~3~~	~~Mount over screed area~~
	~~Type B (narrow) or Type C (spot)~~	~~2~~	~~Aim to auger and guideline~~
	~~Type B (wide)or Type C (flood)~~	~~2~~	~~Aim 25feet behind paving machine~~
~~2~~	~~Type D Balloon~~	~~2~~	~~Mount over screed area~~

~~**TABLE 4.06-2: Minimum Roller Lighting**~~

~~Option~~	~~Fixture Configuration~~	~~Fixture Quantity~~	~~Requirement~~
~~1~~	~~Type B (wide)~~	~~2~~	~~Aim 50 feet in front of and behind roller~~
	~~Type B (narrow)~~	~~2~~	~~Aim 100 feet in front of and behind roller~~
~~2~~	~~Type C (flood)~~	~~2~~	~~Aim 50 feet in front of and behind roller~~
	~~Type C (spot)~~	~~2~~	~~Aim 100 feet in front of and behind roller~~
~~3~~	~~Type D Balloon~~	~~1~~	~~Mount above the roller~~

~~*All fixtures shall be mounted above the roller.~~

~~Type A: Fluorescent fixture shall be heavy duty industrial type. Each fixture shall have a minimum output of 8,000 lumens. The fixtures shall be mounted horizontally and be designed for continuous row installation.~~

~~Type B: Each floodlight fixture shall have a minimum output of 18,000 lumens.~~

~~Type C: Each fixture shall have a minimum output of 19,000 lumens.~~

~~Type D: Balloon light – each balloon light fixture shall have minimum output of 50,000 lumens and emit light equally in all directions.~~

~~**Material Transfer Vehicle (MTV):** A MTV shall be used when placing bituminous concrete surface course (a lift or multiple lifts) as indicated in the Contract except as noted on the plans or as directed by the Engineer. In addition, continuous paving lengths of less than 500 feet may not require the use of a MTV as determined by the Engineer.~~

~~The MTV must be a vehicle specifically designed for the purpose of delivering the bituminous concrete mixture from the delivery vehicle to the paver. The MTV must continuously remix the bituminous concrete mixture throughout the placement process.~~

~~The use of a MTV will be subject to the requirements stated in Article 1.07.05 Load Restrictions. The Engineer may limit the use of the vehicle if it is determined that the use of the MTV may damage highway components, utilities, or bridges. The Contractor shall submit to the Engineer at time of pre-construction the following information:~~

1. ~~The make and model of the MTV.~~
2. ~~The individual axle weights and axle spacing for each piece of paving equipment (haul vehicle, MTV and paver).~~
3. ~~A working drawing showing the axle spacing in combination with all pieces of equipment that will comprise the paving echelon.~~

4. Test Section: The Engineer may require the Contractor to place a test section whenever the requirements of this specification or Section M.04 are not met.

The Contractor shall submit the quantity of mixture to be placed and the location of the test section for review and approval by the Engineer. The same equipment used in the construction of a passing test section shall be used throughout production.

If a test section fails to meet specifications, the Contractor shall stop production, make necessary adjustments to the job mix formula, Plant operations, or procedures for placement and compaction. The Contractor shall construct test sections, as allowed by the Engineer, until all the required specifications are met. All test sections shall also be subject to removal as set forth in Article 1.06.04.

5. Transitions for Roadway Surface: Transitions shall be formed at any point on the roadway where the pavement surface deviates, vertically, from the uniform longitudinal profile as specified on the plans. Whether formed by milling or by bituminous concrete mixture, all transition lengths shall meet the criteria below unless otherwise specified.

~~**Permanent Transitions:** Defined as any gradual change in pavement elevation that remains as a permanent part of the work.~~

~~A transition shall be constructed no closer than 75 feet from either side of a bridge expansion joint or parapet. All permanent transitions, leading and trailing ends shall meet the following length requirements:~~

~~**Posted Speed Limit**~~	~~**Permanent Transition Length Required**~~
~~> 35 mph~~	~~30 feet per inch of elevation change~~
~~35 mph or less~~	~~15 feet per inch of elevation change~~

~~In areas where it is impractical to use the above-described permanent transition lengths, the use of a shorter permanent transition length may be permitted when approved by the Engineer.~~

~~**Temporary Transitions:** Defined as a transition that does not remain a permanent part of the work. All temporary transitions shall meet the following length requirements:~~

~~**Posted Speed Limit**~~	~~**Temporary Transition Length Required**~~

~~> 50 mph~~	~~Leading Transition: 15 feet per inch of vertical change (thickness)~~ ~~Trailing Transition: 6 feet per inch of vertical change (thickness)~~
~~40, 45 or 50 mph~~	~~Leading and Trailing: 4 feet per inch of vertical change (thickness)~~
~~35 mph or less~~	~~Leading and Trailing: 3 feet per inch of vertical change (thickness)~~

~~**Note:** Any temporary transition to be in place over the winter shutdown period or during extended periods of inactivity (more than 14 calendar days) shall meet the greater than 50 mph requirements shown above.~~

6. Spreading and Finishing of Mixture: Prior to the placement of the mixture, the underlying base course shall be brought to the plan grade and cross section within the allowable tolerance.

Immediately before placing a bituminous concrete lift, a uniform coating of tack coat shall be applied to all existing underlying pavement surfaces and on the exposed surface of a wedge joint. Such surfaces shall be clean and dry. Sweeping or other means acceptable to the Engineer shall be used.

The mixture shall not be placed whenever the surface is wet or frozen.

Tack Coat Application: The tack coat shall be applied by a pressurized spray system that results in uniform overlapping coverage at an application rate of 0.03 to 0.05 gal./s.y. for a non-milled surface and an application rate of 0.05 to 0.07 gal./s.y. for a milled surface. For areas where both milled and un-milled surfaces occur, the tack coat shall be an application rate of 0.03 to 0.05 gal /s.y. The Engineer must approve the equipment and the method of measurement prior to use. The material for tack coat shall be heated to 160°F ± 10°F and shall not be further diluted.

Tack coat shall be allowed sufficient time to break prior to any paving equipment or haul vehicles driving on it.

The Contractor may request to omit the tack coat application between bituminous concrete layers that have not been exposed to traffic and are placed during the same work shift. Requests to omit tack coat application on the upper and lower surfaces of a wedge joint will not be considered.

Placement: The mixture shall be placed and compacted to provide a smooth, dense surface with a uniform texture and no segregation at the specified thickness and dimensions indicated in the plans and specifications.

When unforeseen weather conditions prevent further placement of the mixture, the Engineer is not obligated to accept or place the bituminous concrete mixture that is in transit from the Plant.

In advance of paving, traffic control requirements shall be set up, maintained throughout placement, and shall not be removed until all associated work including density testing is completed.

The mixture temperature will be verified by means of a probe or infrared type of thermometer. The placement temperature range shall be listed in the quality control plan (QCP) for placement and meet the requirements of Table M.04.03-4. Any HMA material that that falls outside the specified temperature range as measured by a probe thermometer may be rejected.
The Contractor shall inspect the newly placed pavement for defects in mixture or placement before rolling is started. Any deviation from standard crown or section shall be immediately remedied by placing additional mixture or removing surplus mixture. Such defects shall be corrected to the satisfaction of the Engineer.

Where it is impracticable due to physical limitations to operate the paving equipment, the Engineer may permit the use of other methods or equipment. Where hand spreading is permitted, the mixture shall be placed by means of suitable shovels and other tools, and in a uniformly loose layer at a thickness that will result in a completed pavement meeting the designed grade and elevation.

Placement Tolerances: Each lift of bituminous concrete placed at a specified thickness shall meet the following requirements for thickness and area. Any pavement exceeding these limits shall be subject to an adjustment or removal. Lift tolerances will not relieve the Contractor from meeting the final designed grade.

Lifts of specified non-uniform thickness, i.e. wedge or shim course, shall not be subject to thickness and area adjustments.

a) Thickness: Where the average thickness of the lift exceeds that shown on the plans beyond the tolerances shown in Table 4.06-3, the Engineer will calculate the thickness adjustment in accordance with Article 4.06.04.

TABLE 4.06-3: Thickness Tolerances

Mixture Designation	Lift Tolerance
S1	+/- 3/8 inch
S0.25, S0.375, S0.5	+/- 1/4 inch

Where the thickness of the lift of mixture is less than that shown on the plans beyond the tolerances shown in Table 4.06-3, the Contractor, with the approval of the Engineer, shall take corrective action in accordance with this Section.

b) Area: Where the width of the lift exceeds that shown on the plans by more than the specified thickness, the Engineer will calculate the area adjustment in Article 4.06.04.

c) Delivered Weight of Mixture: When the delivery ticket shows that the truck exceeds the allowable gross weight for the vehicle type, the Engineer will calculate the weight adjustment in accordance with Article 4.06.04.

Transverse Joints: All transverse joints shall be formed by saw-cutting to expose the full thickness of the lift. Tack coat shall be applied to the sawn face immediately prior to additional mixture being placed.

Compaction: The Contractor shall compact the mixture to meet the density requirements as stated in Article 4.06.04 and eliminate all roller marks without displacement, shoving cracking, or aggregate breakage.

When placing a lift with a specified thickness less than 1 1/2 inches, or a wedge course, the Contractor shall provide a minimum rolling pattern as determined by the development of a compaction curve. The procedure to be used shall be documented in the Contractor's QCP for placement and demonstrated on the first day of placement.

The use of the vibratory system on concrete structures is prohibited. When approved by the Engineer, the Contractor may operate a roller using an oscillatory system at the lowest frequency setting.

If the Engineer determines that the use of compaction equipment in the dynamic mode may damage highway components, utilities or adjacent property, the Contractor shall provide alternate compaction equipment.

Rollers operating in the dynamic mode shall be shut off when changing directions.

These allowances will not relieve the Contractor from meeting pavement compaction requirements.

Surface Requirements:
Each lift of the surface course shall not vary more than 1/4 inch from a Contractor-supplied 10 foot straightedge. For all other lifts of bituminous concrete, the tolerance shall be 3/8 inch. Such tolerance will apply to all paved areas.

Any surface that exceeds these tolerances shall be corrected by the Contractor at its own expense.

7. Longitudinal Joint Construction Methods: The Contractor shall use Method I - Notched Wedge Joint (see Figure 4.06-1) when constructing longitudinal joints where lift thicknesses are 1 ½ inches to 3 inches.

S1.0 mixtures shall be excluded from using Method I. Method II - Butt Joint (see Figure 4.06-2) shall be used for lifts less than 1 1/2 inches or greater than 3 inches. Each longitudinal joint shall maintain a consistent offset from the centerline of the roadway along its entire length. The difference in elevation between the two faces of any completed longitudinal joint shall not exceed 1/4 inch at any location.

~~**Method I - Notched Wedge Joint:**~~

~~A notched wedge joint shall be constructed as shown in Figure 4.06-1 using a device that is attached to the paver screed and is capable of independently adjusting the top and bottom vertical notches. The device shall have an integrated vibratory system. The top vertical notch must be located at the centerline or lane line in the final lift. The requirement for paving full width "curb to curb" as described in Method II may be waived if addressed in the QC plan and approved by the Engineer.~~

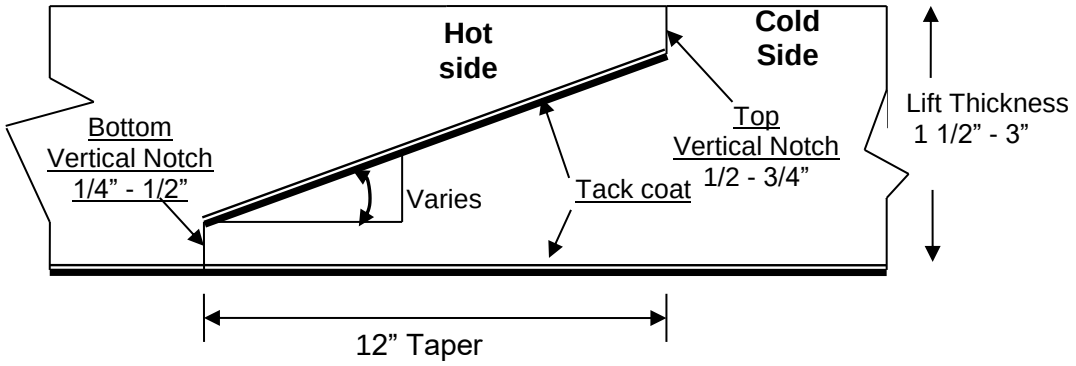
~~The taper portion of the wedge joint shall be evenly compacted using equipment other than the paver or notch wedge joint device. The compaction device shall be the same width as the taper and not reduce the angle of the wedge or ravel the top notch of the joint during compaction.~~

~~When placed on paved surfaces, the area below the sloped section of the joint shall be treated with tack coat.~~

~~The top surface of the sloped section of the joint shall be treated with tack coat prior to placing the completing pass.~~

~~The taper portion of the wedge joint shall not be exposed to traffic for more than 5 calendar days.~~

~~**Figure 4.06-1: Notched Wedge Joint** (Not to Scale)~~



~~Any exposed wedge joint must be located to allow for the free draining of water from the road surface.~~

~~The Engineer reserves the right to define the paving limits when using a wedge joint that will be exposed to traffic.~~

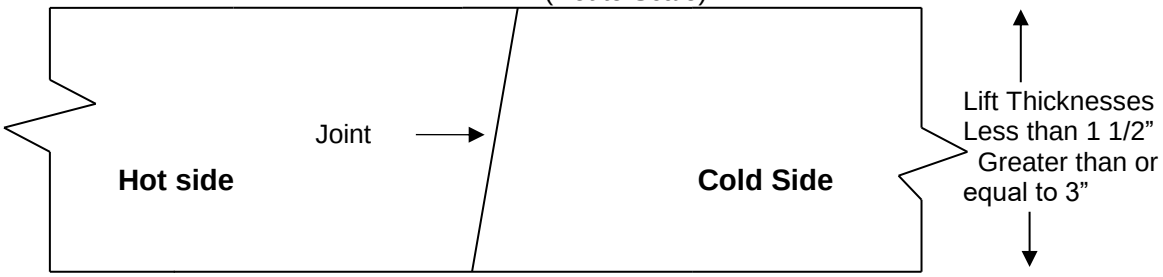
~~If Method I cannot be used on those lifts which are 1 ½ inches to 3 inches, Method III may be substituted according to the requirements below for "Method III - Butt Joint with Hot Poured Rubberized Asphalt Treatment."~~

Method II - Butt Joint:

When adjoining passes are placed, the Contractor shall use the end gate to create a near vertical edge (refer to Figure 4.06-2). The completing pass (hot side) shall have sufficient mixture so that the compacted thickness is not less than the previous pass (cold side). During placement of multiple lifts, the longitudinal joint shall be constructed in such a manner that it is located at least 6 inch from the joint in the lift immediately below. The joint in the final lift shall be at the centerline or at lane lines. The end gate on the paver should be set so there is an overlap onto the cold side of the joint.

The Contractor shall not allow any butt joint to be incomplete at the end of a work shift unless otherwise allowed by the Engineer. When using this method, the Contractor is not allowed to leave a vertical edge exposed at the end of a work shift and must complete paving of the roadway full width "curb to curb."

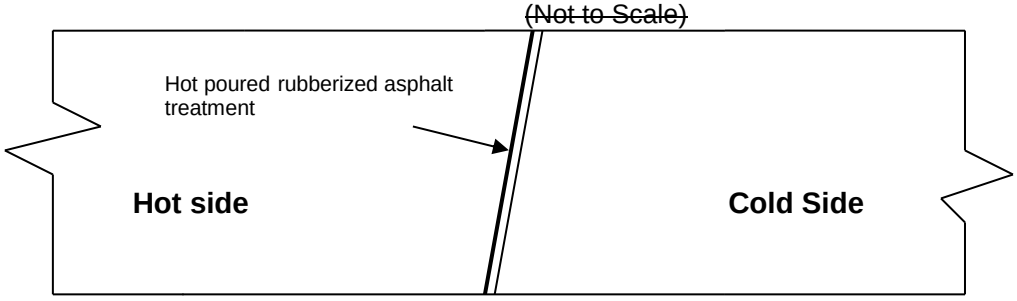
Figure 4.06-2: Butt Joint
(Not to Scale)



~~**Method III - Butt Joint with Hot Poured Rubberized Asphalt Treatment**:~~

~~If Method I cannot be used due to physical constraints in certain limited locations, the Contractor may submit a request in writing for approval by the Engineer to use Method III as a substitution in those locations. There shall be no additional measurement or payment made when Method III is substituted for Method I. When required by the Contract or approved by the Engineer, Method III (see Figure 4.06-3) shall be used.~~

~~**Figure 4.06-3: Butt Joint with Hot Poured Rubberized Asphalt Treatment**~~
~~(Not to Scale)~~



~~All of the requirements of Method II must be met with Method III. In addition, the longitudinal vertical edge must be treated with a rubberized joint seal material meeting the requirements of ASTM D6690, Type 2. The joint sealant shall be placed on the face of the "cold side" of the butt joint as shown above prior to placing the "hot side" of the butt joint. The joint seal material shall be applied in accordance with the manufacturer's recommendation so as to provide a uniform coverage and avoid excess bleeding onto the newly placed pavement.~~

8. Contractor Quality Control (QC) Requirements: The Contractor shall be responsible for maintaining adequate quality control procedures throughout the production and placement operations. Therefore, the Contractor must ensure that the materials, mixture, and work provided by Subcontractors, Suppliers, and Producers also meet Contract specification requirements.

This effort must be documented in Quality Control Plans (QCP) and must address the actions, inspection, or sampling and testing necessary to keep the production and placement operations in control, to determine when an operation has gone out of control and to respond to correct the situation in a timely fashion.

The Standard QCP for production shall consist of the quality control program specific to the production facility.

There are 3 components to the QCP for placement: a Standard QCP, a Project Summary Sheet that details Project-specific information, and, if applicable, a separate Extended Season Paving Plan as required in 4.06.03-9 "Temperature and Seasonal Requirements."

The Standard QCP for both production and placement shall be submitted to the Department for approval each calendar year and at a minimum of 30 days prior to production or placement.

Production or placement shall not occur until all QCP components have been approved by the Engineer.

Each QCP shall include the name and qualifications of a Quality Control Manager (QCM). The QCM shall be responsible for the administration of the QCP, and any modifications that may become necessary.

The QCM shall have the ability to direct all Contractor personnel on the Project during paving operations.

The QCPs shall also include the name and qualifications of any outside testing laboratory performing any QC functions on behalf of the Contractor. The QC Technician performing in-place density testing shall be NETTCP certified as a paving inspector.

Approval of the QCP does not relieve the Contractor of its responsibility to comply with the Project specifications. The Contractor may modify the QCPs as work progresses and must document the changes in writing prior to resuming operations. These changes include but are not limited to changes in quality control procedures or personnel. The Department reserves the right to deny significant changes to the QCPs.

QCP for Production: Refer to M.04.03-1.

QCP for Placement: The Standard QCP, Project Summary Sheet, and Extended Season Paving Plan shall conform to the format provided by the Engineer. The format is available at http://www.ct.gov/dot/lib/dot/documents/dconstruction/pat/qcp_outline_hma_placement.pdf

The Contractor shall perform all quality control sampling and testing, provide inspection, and exercise management control to ensure that bituminous concrete placement conforms to the requirements as outlined in its QCP during all phases of the work. The Contractor shall document these activities for each day of placement.

The Contractor shall submit complete field density testing and inspection records to the Engineer within 48 hours in a manner acceptable to the Engineer.

The Contractor may obtain 1 mat core and 1 joint core per day for process control, provided this process is detailed in the QCP. The results of these process control cores shall not be used to dispute the Department's determinations from the acceptance cores. The Contractor shall submit the location of each process control core to the Engineer for approval prior to taking the core. The core holes shall be filled to the same requirements described in Subarticle 4.06.03-10.

9. Temperature and Seasonal Requirements: Paving, including placement of temporary pavements, shall be divided into 2 seasons, "In-Season" and "Extended-Season." In-Season paving occurs from May 1 to October 14, and Extended Season paving occurs from October 15 to April 30. The following requirements shall apply unless otherwise authorized or directed by the Engineer:

- Mixtures shall not be placed when the air or subbase temperature is less than 40°F regardless of the season.
- Should paving operations be scheduled during the Extended Season, the Contractor must submit

an Extended Season Paving Plan for the Project that addresses minimum delivered mix temperature considering WMA, PMA, or other additives; maximum paver speed; enhanced rolling patterns; and the method to balance mixture delivery and placement operations. Paving during Extended Season shall not commence until the Engineer has approved the plan.

10. Field Density The Contractor shall obtain cores for the determination of mat and longitudinal joint density of bituminous concrete pavements. Within five calendar days of placement, mat and joint cores shall be extracted on each lift with a specified thickness of 1 1/2 inches or more. Joint cores shall not be extracted on HMA S1.0 lifts.

The Contractor shall extract cores from random locations determined by the Engineer in accordance with ASTM D3665. Four (4) or six (6) inch diameter cores shall be extracted for S0.25, S0.375 and S0.5 mixtures; 6 inch diameter cores shall be required for S1.0 mixtures. The Contractor shall coordinate with the Engineer to witness the extraction, labeling of cores, and filling of the core holes.
Each lift will be separated into lots as follows:

a) Simple Average Density Lots: For total estimated quantities below 2,000 tons, the lift will be evaluated in one lot which will include the total paved tonnage of the lift and all longitudinal joints between the curb lines. For total estimated quantities between 2,000 and 3,500 tons, the lift will be evaluated in two lots in which each lot will include approximately half of the total tonnage placed for the full paving width of a lift including all longitudinal joints between the curb lines.

b) PWL Density Lots: Mat density lots will include each 3,500 tons of mixture placed within 30 calendar days. Joint density lots will include 14,000 linear feet of constructed joints. Bridge density lots will always be analyzed using simple average lot methodology.

c) Partial Density Lot (For PWL only): A mat density lot with less than 3,500 tons or a joint density lot with less than 14,000 linear feet due to completion of the course; or a lot spanning 30 calendar days.

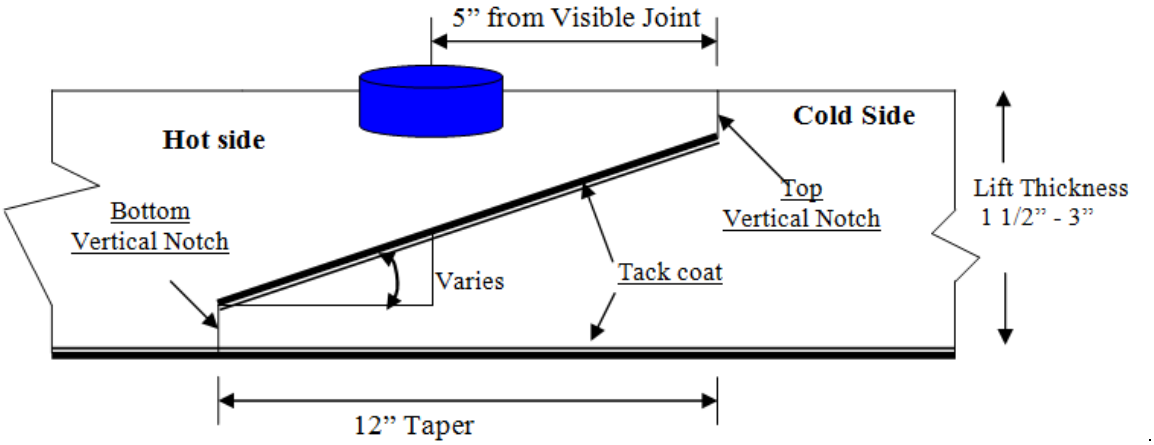
Prior to paving, the type and number of lot(s) will be determined by the Engineer. Noncontiguous areas such as highway ramps may be combined to create one lot.

After the lift has been compacted and cooled, the Contractor shall cut cores to a depth equal to or greater than the lift thickness and shall remove them without damaging the lift(s) to be tested. Any core that is damaged or obviously defective while being obtained will be replaced with a new core from a location within 2 feet measured in a longitudinal direction.

A mat core shall not be located any closer than 1 foot from the edge of a paver pass. If a random number locates a core less than 1 foot from any edge, the location will be adjusted by the Engineer so that the outer edge of the core is 1 foot from the edge of the paver pass.

Method I, Notched Wedge Joint cores shall be taken so that the center of the core is 5 inches from the visible joint on the hot mat side (Figure 4.06-4).

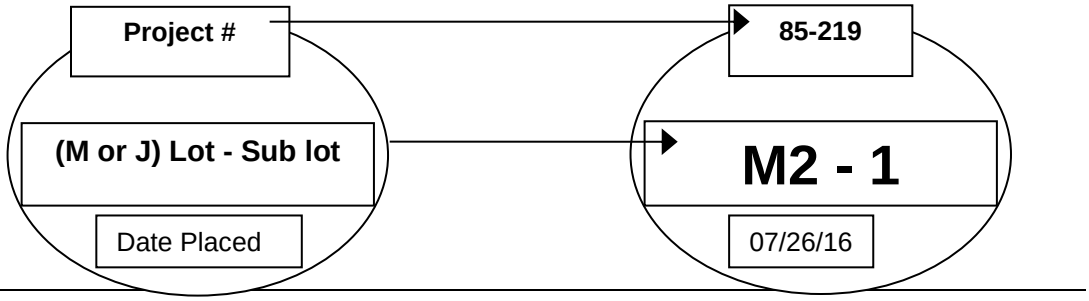
Figure 4.06-4: Notched Wedge Joint Cores (Not to Scale)



~~When Method II or Method III Butt Joint is used, cores shall be taken from the hot side so the edge of the core is within 1 inch of the longitudinal joint.~~

~~The cores shall be labeled by the Contractor with the Project number, date placed, lot number, and sub-lot number. The core's label shall include "M" for a mat core and "J" for a joint core. For example, a mat core from the first lot and the first sub-lot shall be labeled with "M1 – 1." A mat core from the second lot and first sub-lot shall be labeled "M2-1" (see Figure 4.06-5). The Engineer shall fill out a MAT-109 to accompany the cores. The Contractor shall deliver the cores and MAT-109 to the Department's Central Lab. The Contractor shall use a container approved by the Engineer. The container shall have a lid capable of being locked shut and tamper proof. The Contractor shall use foam, bubble wrap, or another suitable material to prevent the cores from being damaged during handling and transportation. Once the cores and MAT-109 are in the container the Engineer will secure the lid using security seals at the removable hinges(s) and at the lid opening(s). The security seals' identification number must be documented on the MAT-109. All sealed containers shall be delivered to the Department's Central Lab within two working days from time of extraction. Central Lab personnel will break the security seal and take possession of the cores.~~

~~Figure 4.06-5: Labeling of Cores~~



~~Each core hole shall be filled within 4 hours upon core extraction. Prior to being filled, the hole shall be prepared by removing any free water and applying tack coat using a brush or other means to uniformly cover the cut surface. The core hole shall be filled using a bituminous concrete mixture at a minimum temperature of 240°F containing the same or smaller nominal maximum aggregate size and compacted with a hand compactor or other mechanical means to the maximum compaction possible. The bituminous concrete shall be compacted to 1/8 inch above the finished pavement.~~

~~Simple Average Density Lots~~~~:~~

~~A standard simple average density lot is the quantity of material placed within the defined area excluding any bridge decks.~~

~~A combo simple average density lot is the quantity of material placed within the defined area including bridge decks less than or equal to 500 feet long.~~

~~A bridge simple average density lot is the quantity of material placed on a bridge deck longer than 500 feet.~~

~~The number of cores per lot shall be determined in accordance with Table 4.06-4. If a randomly selected mat or joint core location is on a bridge deck, the core is to be obtained on the bridge deck in addition to the core(s) required on the bridge deck.~~

~~The number of cores per lot shall be determined in accordance with Table 4.06-5. Multiple bridge decks can be combined into one lot if the paving and underlying conditions are comparable. If multiple bridge decks are combined into a single bridge lot, at least one mat and joint core shall be obtained on each bridge.~~

~~The longitudinal locations of mat cores within a standard, combo, or bridge lot containing multiple paving passes will be determined using the combined length of the paving passes within the lot.~~

~~TABLE 4.06-4: Number of Cores per Lot (Simple Average)~~

~~Lot Type~~	**~~No. of Mat Cores~~**		**~~No. of Joint Cores~~**	
~~Standard Lot < 500 Tons~~	~~3~~		~~3~~	
~~Standard Lot ≥ 500 Tons~~	~~4~~		~~4~~	
~~Combo Lot < 500 Tons~~	~~2 plus~~	~~1 per bridge (≤ 300')~~	~~2 plus~~	~~1 per bridge (≤ 300)~~
~~Combo Lot ≥ 500 Tons(1)~~	~~4 plus~~	~~2 per bridge (301' – 500')~~	~~4 plus~~	~~2 per bridge (301' – 500')~~

~~TABLE 4.06-5: Number of Core per Bridge Density Lot (Simple Average)~~

~~Length of Bridge(s) (Feet)~~	**~~Minimum No. of Mat Cores~~**	**~~Minimum No. of Joint Cores~~**
~~< 500~~	~~2~~	~~2~~
~~501 – 1,500~~	~~3~~	~~3~~
~~1,501 – 2,500~~	~~4~~	~~4~~
~~2,501 and greater~~	~~5~~	~~5~~

~~PWL Density Lots~~~~:~~

~~A PWL mat density lot is 3,500 tons of material placed within the defined area excluding any bridges. One mat core will be obtained per every 500 tons placed.~~

~~A PWL joint density lot is 14,000 linear feet of longitudinal joint excluding any joints on bridge decks. One joint core will be obtained per every 2,000 linear feet of joint.~~

~~Bridge density lots will always be analyzed as using the simple average lot methodology. The number of cores per lot shall be determined in accordance with Table 4.06-5. Multiple bridge decks can be combined into one lot if the paving and underlying conditions are comparable. If multiple bridge decks are combined into a single bridge lot, at least one mat and joint core shall be obtained on each bridge.~~

~~11. Acceptance Sampling and Testing:~~ ~~Sampling shall be performed in accordance with ASTM D3665 or a statistically-based procedure of stratified random sampling approved by the Engineer.~~

~~Plant Material Acceptance:~~ ~~The Contractor shall provide the required sampling and testing during all phases of the work in accordance with M.04. The Department will verify the Contractor's acceptance test results. Should any test results exceed the specified tolerances in the Department's current QA Program~~

~~for Materials, the Contractor's test results for a subject lot or sub lot may be replaced with the Department's results for the purpose of calculating adjustments. The verification procedure is included in the Department's current QA Program for Materials.~~

~~**Density Acceptance:** The Engineer will perform all acceptance testing in accordance with AASHTO T 331. The density of each core will be determined using the daily production's average maximum theoretical specific gravity (Gmm) established during the testing of the parent material at the Plant. When there was no testing of the parent material or any Gmm exceeds the specified tolerances in the Department's current QA Program for Materials, the Engineer will determine the maximum theoretical density value to be used for density calculations.~~

~~**12. Density Dispute Resolution Process:** The Contractor and Engineer will work in partnership to avoid potential conflicts and to resolve any differences that may arise during quality control or acceptance testing for density. Both parties will review their sampling and testing procedures and results and share their findings. If the Contractor disputes the Engineer's test results, the Contractor must submit in writing a request to initiate the Dispute Resolution Process within five calendar days of the notification of the test results. No request for dispute resolution will be allowed unless the Contractor provides quality control results from samples taken prior to and after finish rolling, and within the timeframe described in 4.06.03-8 supporting its position. No request for dispute resolution will be allowed for a density lot in which any core was not taken within the required 5 calendar days of placement. Should the dispute not be resolved through evaluation of existing testing data or procedures, the Engineer may authorize the Contractor to obtain a new core or set of core samples per disputed lot. The core samples must be extracted no later than seven calendar days from the date of the Engineer's authorization. All such core samples shall be extracted and the core hole filled using the procedure outlined in 4.06.03-10.~~

~~a) Simple Average Lots: The Contractor may only dispute any simple average lot that is adjusted at or below 95 percent payment. The number and location (mat, joint, or structure) of the cores taken for dispute resolution must reflect the number and location of the original cores. The location of each core shall be randomly located within the respective original sub lot. The dispute resolution results shall be combined with the original results and averaged for determining the final in-place density value.~~

~~b) PWL Lots: The Contractor may dispute any PWL sublot when the PWL falls below 50% calculated in accordance with section 4.06.04.2.b. An additional random core in the sublot may be taken to validate the accuracy of the core in question. The Department will verify the additional core test result and may average the original test result with the additional core result for purpose of calculating adjustments.~~

13. Corrective Work Procedure:

If pavement placed by the Contractor does not meet the specifications, and the Engineer requires its replacement or correction, the Contractor shall:

a) Propose a corrective procedure to the Engineer for review and approval prior to any corrective work commencing. The proposal shall include:
   - Limits of pavement to be replaced or corrected, indicating stationing or other landmarks that are readily distinguishable.
   - Proposed work schedule.
   - Construction method and sequence of operations.
   - Methods of maintenance and protection of traffic.
   - Material sources.
   - Names and telephone numbers of supervising personnel.

b) Any corrective courses placed as the final wearing surface shall match the specified lift thickness after completion.

14. Protection of the Work: The Contractor shall protect all sections of the newly finished pavement from damage that may occur as a result of the Contractor's operations for the duration of the Project.

15. Cut Bituminous Concrete Pavement: Work under this item shall consist of making a straight-line cut in the bituminous concrete pavement to the lines delineated on the plans or as directed by the Engineer.

The cut shall provide a straight, clean, vertical face with no cracking, tearing or breakage along the cut edge.

4.06.04—Method of Measurement:

1. HMA S* or PMA S*: Bituminous concrete will be measured for payment as the amount of material in tons placed as determined by the net weight on the delivered tickets and adjusted by area, thickness and weight as follows:

Quantity Adjustments: Adjustments may be applied to the placed bituminous concrete quantities that will be measured for payment using the following formulas:

Yield Factor for Adjustment Calculation = 0.0575 tons/SY/inch

Actual Area (SY) = [(Measured Length (ft)) x (Avg. of width measurements (ft))]÷9 s.f./SY

Actual Thickness (t) = Total tons delivered / [Actual Area (SY) x 0.0575 tons/SY/inch]

a) Area: If the average width exceeds the allowable tolerance, an adjustment will be made using the following formula. The tolerance for width is equal to the specified thickness (inch) of the lift being placed.

Quantity Adjusted for Area (T_A) = [(L x W_{adj})/9] x (t) x 0.0575 Tons/SY/inch = (-) tons

Where: L = Length (ft)
(t) = Actual thickness (inches)
W_{adj} = (Designed width (ft) + tolerance /12) - Measured Width)

b) Thickness: If the actual average thickness is less than the allowable tolerance, the Contractor shall submit a repair procedure to the Engineer for approval. If the actual thickness exceeds the allowable tolerance, an adjustment will be made using the following formula:

Quantity Adjusted for Thickness (T_T) = A x t_{adj} x 0.0575 = (-) tons

Where: A = Area = {[L x (Design width + tolerance (lift thickness)/12)] / 9}
t_{adj} = Adjusted thickness = [(Dt + tolerance) - Actual thickness]
Dt = Designed thickness (inches)

c) Weight: If the quantity of bituminous concrete representing the mixture delivered to the Project is in excess of the allowable gross vehicle weight (GVW) for each vehicle, an adjustment will be made using the following formula:

Quantity Adjusted for Weight (T_W) = GVW – DGW= (-) tons

Where: DGW = Delivered gross weight as shown on the delivery ticket or measured on a certified scale

~~**2. Bituminous Concrete Adjustment Cost**:~~

~~a) Production Lot Adjustment: An adjustment may be applied to each production lot as follows:~~
~~i. Non-PWL Production Lot (less than 3,500 tons):~~
~~The adjustment values in Tables 4.06-6 and 4.06-7 will be calculated for each sub lot based on the Air Void (AV) and Asphalt Binder Content (PB) test results for that sub lot. The total adjustment for each day's production (lot) will be computed as follows:~~

~~**Tons Adjusted for Superpave Design (T_{SD})** = [(AdjAV_t + AdjPB_t) / 100] x Tons~~

~~Where: AdjAV_t: Percent adjustment for air voids~~

~~$AdjPB_t$: Percent adjustment for asphalt binder~~
~~Tons: Weight of material (tons) in the lot adjusted by 4.06.4-1~~

~~Percent Adjustment for Air Voids = $AdjAV_t = [AdjAV_1 + AdjAV_2 + AdjAV_i + \ldots + AdjAV_n)] /n$~~

~~Where: $AdjAV_t$ = Total percent air void adjustment value for the lot~~
~~$AdjAV_i$ = Adjustment value from Table 4.06-6 resulting from each sub lot or the average of the adjustment values resulting from multiple tests within a sub lot, as approved by the Engineer.~~
~~n = number of sub lots based on Table M.04.03-2~~

~~TABLE 4.06-6: Adjustment Values for Air Voids~~

~~Adjustment Value ($AdjAV_i$) (%)~~	**~~S0.25, S0.375, S0.5, S1 Air Voids (AV)~~**
~~+2.5~~	~~3.8 - 4.2~~
~~+3.125*(AV-3)~~	~~3.0 – 3.7~~
~~-3.125*(AV-5)~~	~~4.3 – 5.0~~
~~20*(AV-3)~~	~~2.3 – 2.9~~
~~-20*(AV-5)~~	~~5.1 – 5.7~~
~~-20.0~~	~~≤ 2.2 or ≥ 5.8~~

~~Percent Adjustment for Asphalt Binder = $AdjPB_t = [(AdjPB_1 + AdjPB_2 + AdjPB_i + \ldots + AdjPB_n)] /n$~~

~~Where: $AdjPB_t$ = Total percent liquid binder adjustment value for the lot~~
~~$AdjPB_i$ = Adjustment value from Table 4.06-7 resulting from each sub lot~~
~~n = number of binder tests in a production lot~~

~~TABLE 4.06-7: Adjustment Values for Binder Content~~

~~Adjustment Value ($AdjAV_i$) (%)~~	**~~S0.25, S0.375, S0.5, S1 Pb~~**
~~0.0~~	~~JMF Pb ± 0.3~~
~~-10.0~~	~~≤ JMF Pb - 0.4 or ≥ JMF Pb + 0.4~~

~~ii. PWL Production Lot (3500 tons or more):~~
~~For each lot, the adjustment values will be calculated using PWL methodology based on AV, VMA, and PB test results. The results will be considered as being normally distributed and all applicable equations in AASHTO R 9 and AASHTO R 42 Appendix X4 will apply.~~

~~Only one test result will be considered for each sub lot. The specification limits are listed in M.04.~~
~~For AV, PB, and voids in mineral aggregate (VMA), the individual material quantity characteristic adjustment (Adj) will be calculated as follows:~~

~~For PWL between 50 and 90%: Adj(AV_t or PB_t or VMA_t)= (55 + 0.5 PWL) - 100~~
~~For PWL at and above 90%: Adj(AV_t or PB_t or VMA_t)= (77.5 + 0.25 PWL) - 100~~

~~Where: $AdjAV_t$ = Total percent AV adjustment value for the lot~~
~~$AdjPB_t$= Total percent PB adjustment value for the lot~~
~~$AdjVMA_t$= Total percent VMA adjustment value for the lot~~

~~A lot with PWL less than 50% in any of the 3 individual material quality characteristics will be evaluated under 1.06.04.~~

~~The total adjustment for each production lot will be computed using the following formula:~~

Tons Adjusted for Superpave Design (T_{SD}) = [(0.5AdjAV$_t$ + 0.25AdjPB$_t$ + 0.25 AdjVMA$_t$) / 100] X Tons

Where Tons: Weight of material (tons) in the lot adjusted by 4.06.4-1

iii. Partial Lots:

Lots with less than 4 sub lots will be combined with the prior lot. If there is no prior lot with equivalent material or if the last test result of the prior lot is over 30 calendar days old, the adjustment will be calculated as indicated in 4.06.04-2.a)i.

Lots with 4 or more sub lots will be calculated as indicated in 4.06.04-2.a)ii.

Production Lot Adjustment: T_{SD} x Unit Price = Est. (Pi)

Where: Unit Price = Contract unit price per ton per type of mixture

Est. (Pi)= Pay Unit in dollars representing incentive or disincentive per lot

b) Density Lot Adjustment: An adjustment may be applied to each density lot as follows:

i. Simple Average Density Lot (less than 3500 tons) and Bridge Lots:

The final lot quantity shall be the difference between the total payable tons for the Project and the sum of the previous lots. If either the Mat or Joint adjustment value is "remove and replace," the density lot shall be removed and replaced (curb to curb).

No positive adjustment will be applied to a density lot in which any core was not taken within the required 5 calendar days of placement.

Tons Adjusted for Density (T_D) = [((PA$_M$ x 0.50) + (PA$_J$ x 0.50)] / 100] X Tons

Where: T_D = Total tons adjusted for density for each lot

PA$_M$ = Mat density percent adjustment from Table 4.06-8

PA$_J$ = Joint density percent adjustment from Table 4.06-9

Tons: Weight of material (tons) in the lot adjusted by 4.06.4-1

TABLE 4.06-8: Adjustment Values for Pavement Mat density

Average Core Result **Percent Mat Density**	**Percent Adjustment (Bridge and Non-Bridge)** [(1)(2)]
97.1 - 100	-1.667*(ACRPD-98.5)
94.5 – 97.0	+2.5
93.5 – 94.4	+2.5*(ACRPD-93.5)
92.0 – 93.4	0
90.0 – 91.9	-5*(92-ACRPD)
88.0 – 89.9	-10*(91-ACRPD)
87.0 – 87.9	-30
86.9 or less	Remove and Replace (curb to curb)

Notes:

(1) ACRPD = Average Core Result Percent Density

(2) All Percent Adjustments to be rounded to the second decimal place; for example round 1.667 to 1.67.

TABLE 4.06-9: Adjustment Values for Pavement Joint Density

Average Core Result **Percent Joint Density**	**Percent Adjustment (Bridge and Non-Bridge)** [(1)(2)]
97.1 – 100	-1.667*(ACRPD-98.5)
93.5 – 97.0	+2.5

92.0 – 93.4	+1.667*(ACRPD-92)
91.0 – 91.9	0
89.0 – 90.9	-7.5*(91-ACRPD)
88.0 – 88.9	-15*(90-ACRPD)
87.0 – 87.9	-30
86.9 or less	Remove and Replace (curb to curb)

Notes:
(1) ACRPD = Average Core Result Percent Density
(2) All Percent Adjustments to be rounded to the second decimal place; for example round 1.667 to 1.67

Additionally, any sublot with a density result below 87% will be evaluated under 1.06.04.

ii. PWL Density Lot (3,500 tons or more):

For each lot, the adjustment values will be calculated using PWL methodology based on mat and joint density test results. Only one result will be included for each sublot. The results will be considered as being normally distributed and all applicable equations in AASHTO R 9 and AASHTO R 42 Appendix X4 will apply.

The specification limits for the PWL determination are as follows:
Mat Density: 91.5-98%
Joint Density: 90-98%

For mat and joint density, the individual percent adjustment (PA) will be calculated as follows:
For PWL between 50 and 90%: PA ($_M$ or $_J$)= 0.25 * PWL – 22.50
For PWL at and above 90%: PA ($_M$ or $_J$)= 0.125 * PWL – 11.25
Where: PA_M = Total percent mat density adjustment value for the PWL mat density lot
PA_J= Total percent joint density adjustment value for the PWL joint density lot

No positive adjustment will be applied to a density lot in which any core was not taken within the required 5 calendar days of placement.

A lot with PWL less than 50% will be evaluated under 1.06.04.
The total adjustment for each PWL mat density lot will be computed as follows:

Tons Adjusted for Mat Density (T_{MD}) = (PA_M / 100) X Tons

Where: Tons= Weight of material (tons) in the lot adjusted by 4.06.4-1.
The total adjustment for each PWL joint density lot will be computed as follows:

Tons Adjusted for Joint Density (T_{JD}) = (PA_J / 100) X J_Tons

Tons Adjusted for Joint Density will be calculated at the end of each project or project phase.

Where: J_Tons = Tons in project or phase adjusted by 4.06.4 – 1 x $\frac{\text{Lot joint length}}{\text{Joint length in project or phase}}$

All bridge density lot adjustments will be evaluated in accordance with 4.06.04-2.b)i.

Additionally, any sublot with a density result below 87% will be evaluated under 1.06.04.

iii. Partial Lots:
Lots with less than 4 sub lots will be combined with the prior lot. If there is no prior lot with equivalent material and placement conditions or if the last test result of the prior lot is over 30 calendar days

~~old, the mat and joint individual adjustments will be calculated in accordance to Tables 4.06-8 and 4.06-9. T_{MD} and T_{JD} will be calculated as indicated in 4.06.04-2.b)i.~~

~~Lots with 4 or more sub lots will be calculated as indicated in 4.06.04-2.b)ii.~~

~~**Density Lot Adjustment (Simple Average Lots): T_D x Unit Price = Est. (Di)**~~
~~**Density Lot Adjustment (PWL Lots): (T_{MD} or T_{JD}) x Unit Price = Est. (DMi or DJi)**~~

~~Where: Unit Price = Contract unit price per ton per type of mixture~~
~~Est. (Di)= Pay Unit in dollars representing incentive or disincentive per simple average density lot~~
~~Est. (DMi)= Pay Unit in dollars representing incentive or disincentive per PWL mat lot~~
~~Est. (DJi)= Pay Unit in dollars representing incentive or disincentive per PWL joint lot~~

~~Additionally, any sublot with a density result below 87% will be evaluated under 1.06.04.~~

~~**3. Transitions for Roadway Surface:** The installation of permanent transitions will be measured under the appropriate item used in the formation of the transition.~~

~~The quantity of material used for the installation of temporary transitions will be measured for payment under the appropriate item used in the formation of the transition. The installation and removal of a bond breaker and the removal and disposal of any temporary transition formed by milling or with bituminous concrete pavement is not measured for payment.~~

~~**4. Cut Bituminous Concrete Pavement:** The quantity of bituminous concrete pavement cut will be measured in accordance with 2.02.04.~~

5. Material for Tack Coat: The quantity of tack coat will be measured for payment by the number of gallons furnished and applied on the Project and approved by the Engineer. No tack coat material shall be included that is placed in excess of the tolerance described in 4.06.03.

a. **Container Method** – Material furnished in a container will be measured to the nearest 1/2 gallon. The volume will be determined by either measuring the volume in the original container by a method approved by the Engineer or using a separate graduated container capable of measuring the volume to the nearest 1/2 gallon. The container in which the material is furnished must include the description of material, including lot number or batch number and manufacturer or product source.

b. **Vehicle Method**
   i. Measured by Weight: The number of gallons furnished will be determined by weighing the material on calibrated scales furnished by the Contractor. To convert weight to gallons, one of the following formulas will be used:
   Tack Coat (gallons at 60°F) = Measured Weight (pounds) / Weight per gallon at 60°F
   Tack Coat (gallons at 60°F) = 0.996 x Measured Weight (pounds) / Weight per gallon at 77°F
   ii. Measured by automated metering system on the delivery vehicle:
   Tack Coat (gallons at 60°F) = 0.976 x Measured Volume (gallons).

~~**6. Material Transfer Vehicle (MTV):** The furnishing and use of a MTV will be measured separately for payment based on the actual number of surface course tons delivered to a paver using the MTV.~~

4.06.05—Basis of Payment:

1. HMA S* or PMA S*: The furnishing and placing of bituminous concrete will be paid for at the Contract unit price per ton for " HMA S*" or " PMA S*."

All costs associated with providing illumination of the work area are included in the general cost of the work.

All costs associated with cleaning the surface to be paved, including mechanical sweeping, are included in the general cost of the work. All costs associated with constructing longitudinal joints are included in the general cost of the work.

All costs associated with obtaining cores for acceptance testing and dispute resolution are included in the general cost of the work.

~~**2. Bituminous Concrete Adjustment Costs**: This adjustment will be calculated using the formulas shown below if all of the measured adjustments in 4.06.04-2 are not equal to zero. A positive or negative adjustment will be applied to monies due the Contractor.~~

~~**Production Lot: Σ Est (Pi) = Est. (P)**~~
~~**Density Lot (Simple Average Lots): Σ Est (Di) = Est. (D)**~~
~~**Density Lot (PWL): Σ Est (DMi) + Σ (DJi) = Est. (D)**~~
~~**Bituminous Concrete Adjustment Cost= Est. (P) + Est. (D)**~~

~~Where: Est. ( )= Pay Unit in dollars representing incentive or disincentive in each production or density lot calculated in 4.06.04-2~~

~~The Bituminous Concrete Adjustment Cost item, if included in the bid proposal or estimate, is not to be altered in any manner by the Bidder. If the Bidder should alter the amount shown, the altered figure will be disregarded and the original estimated cost will be used for the Contract.~~

~~**3. Transitions for Roadway Surface:** The installation of permanent transitions will be paid under the appropriate item used in the formation of the transition. The quantity of material used for the installation of temporary transitions will be paid under the appropriate pay item used in the formation of the transition. The installation and removal of a bond breaker, and the removal and disposal of any temporary transition formed by milling or with bituminous concrete pavement is included in the general cost of the work.~~

4. The cutting of bituminous concrete pavement will be paid in accordance with 2.02.05.

5. Material for tack coat will be paid for at the Contract unit price per gallon at 60°F for "Material for Tack Coat."

~~**6.** The Material Transfer Vehicle (MTV) will be paid at the Contract unit price per ton for "Material Transfer Vehicle."~~

Item No.	**Description**	**Unit**
0406236	MATERIAL FOR TACKCOAT	GAL.
0406172	HMA S0.375	TON

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. Work under this item shall also include installation of high visibility construction fence to secure the perimeter of the work area during construction as further described below.

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 described on the plans and 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 unless otherwise directed in the field.

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 or at the direction 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 at the Contractor's expense.

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.

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 steps, retaining walls, drainage structures, fences, gates, and any and all other structures or materials not specifically listed in the Bid Proposal but required to be removed to accomplish the work.

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.

Concrete Wall Removal: Concrete Walls identified on the plans are to be removed to the limits and depths shown on the plans and disposed of by the Contractor. Contractor is responsible to provide and install appropriate fill material to establish existing grade.

Construction Fence: 4’ tall high visibility construction fence shall be installed around the limits of work area for public safety and to prevent intrusion of the public into the work area. If work is still underway during the weekend of the Apple Harvest Festival, fence location shall be reviewed with Town staff and adjusted as required to properly accommodate the festival activities and equipment.

Method of Measurement:

The work described under this item will not be measured for payment but its cost shall be considered included in the lump sum bid 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, clearing and grubbing within the limits of the work, tree trimming under the supervision of a licensed arborist, stump grinding, removal and disposal of trees, roots, stumps, brush, and other objects, leveling of areas to accommodate the work, removal and disposal of concrete walls, including all labor, materials, tools, and equipment necessary thereto.

Item No.	Description	Unit
0201001A	CLEARING AND GRUBBING	L.S.

ITEM # 0202000A **EARTH EXCAVATION**

Description:

This item shall conform to Section 2.02 ROADWAY EXCAVATION, FORMATION OF EMBANKMENT AND DISPOSAL OF SURPLUS MATERIAL, of the Form 818 amended as follows:

Section 2.02.05 Basis of Payment shall be amended as follows:

Earth Excavation required for the installation of the proposed Pickleball Courts and Water Quality Basin shall be paid for at the contract lump sum for Earth Excavation as listed in the bid proposal.

All excavated materials shall be removed from the job site unless otherwise approved by the Engineer. No stockpiling of excavated materials within the flood zone will be permitted.

All other earth excavation including trench excavation required for completion of the project work is included under the various contract items as further described below and will not be measured for payment.

The contract price for earth excavation shall include all labor, equipment, materials, transportation, fuel, disposal, etc., for earth excavation, on site relocation of earth products and transportation and/or disposal of surplus earth materials. All surplus earth materials, including topsoil, shall be hauled off-site by the contractor and shall become property of the contractor. There shall be no separate payment for transportation or disposal of any surplus materials.

Item No.	Description	Unit
0202000A	EARTH EXCAVATION	L.S.

ITEM # 0210019A STONE INFILTRATION TRENCH

Description:

Work under this item shall consist of trench excavation and installation of a stone Infiltration trench including solid 6" PVC trench piping and risers, solid 6" and 8" PVC outlet piping, drain basin with drop in grate, PVC fittings, riser grates, aggregate, and geotextile in the locations and to the lines, grades, and dimensions indicated on the plans or as directed by the Engineer. Outlet piping for the stone filtration trench shall consist of PVC pipe laid in a trench and backfilled with clean backfill material.

Materials:

Pipe and Fittings: Shall be 6" and 8" solid Schedule 40 PVC conforming to the requirements of Article M.08.01.

Aggregates: The aggregates specified for filling the stone infiltration trench shall be washed 2" crushed stone that meets the requirements of Article M.01.02 Course Aggregates Table M.01.02-2 No. 3 gradation.

Geotextile: Shall be TC Mirafi 170N non-woven geotextile fabric as manufactured by Tencate Geosynthetics North America or approved equal that meets the requirements of GEOTEXTILE SUBSURFACE DRAINAGE CLASS A, of the Department of Transportation "Qualified Products List for Connecticut Department of Transportation Projects", latest edition.

Riser Grates: Shall be Nyloplast 0601DI 6 inch Drop In Grate Part # 7001-110-018 or approved equal.

Drain Basin with Drop In Grate: Shall be Nyloplast 12" diameter Drain Basin or approved equal. Drop In Grate shall be Nyloplast 1201DI or approved equal.

Construction Methods:

Trench excavation, backfill and dewatering for these items shall be in conformance with Section 2.86-Drainage Trench Excavation of the Form 818.

The dimensions of the trench shall be as indicated on the plans and details or as directed by the Engineer. Where the bottom of the trench is unstable or in rock, the trench shall be excavated 6 inches deeper and an additional 6 inches layer of granular fill or aggregate similar to that used to fill the trench shall be placed and compacted in the trench.

Geotextile fabric shall be installed along the bottom, ends and sides of the excavated trench prior to installation of aggregate leaving enough fabric to wrap the entire trench upon completion.

Trench aggregate shall be placed to a depth of 3 inches and tamped true to grade. The 6" solid PVC pipe and risers shall be placed and firmly bedded in the aggregate.

When the pipe used has a bell, the pipe shall be installed with the bell end upgrade with the spigot end entered fully into the adjacent bell. Riser pipes shall be installed plumb, level and temporarily supported prior to backfill with required aggregate.

6" PVC trench pipe shall be set level in the aggregate bedding along the bottom of the trench. Trench pipe riser sections and drain basin with drop in grate shall be set to an elevation 2" below top of stone elevation.

After the PVC pipe and risers have been installed as described above, the aggregate shall be placed carefully around, along and over the pipe to a height of 12 inches above the top of the pipe. The remainder of the trench shall be filled with additional aggregate and tamped in layers to the elevations shown on the plans or as directed by the Engineer. Riser grates should be installed when aggregate reaches the elevation of the grates.

Contractor shall excavate, install, and backfill the 6” and 8” solid PVC outlet piping in the locations and to the lines and grades depicted on the plans and details or as directed by the Engineer.

6” and 8” solid PVC outlet piping shall be backfilled with clean backfill material to the lines and grades depicted on the plans and details or as directed by the Engineer.

Method of Measurement:

This work will not be measured for payment since it is being paid for on a lump sum basis.

PVC Piping, including 8” PVC discharge pipe to the proposed water quality basin, will not be measured for payment. Rather this work shall be included in the contract lump sum price for “Stone Infiltration Trench”.

Trench excavation, dewatering, backfilling and consolidation will not be measured for payment, but will be considered as included in the bid price per linear foot of Stone Infiltration Trench.

Basis of Payment:

This work will be paid for at the contract lump sum price for "Stone Infiltration Trench" complete in place, which price shall include 6” solid PVC trench piping and risers, 6” and 8” solid PVC outlet piping, 12” Nyloplast drain basin with drop in grate, elbows, tees, wyes, couplings, fitting, riser grates, trench excavation, dewatering, backfilling and consolidation, geotextile, aggregate, disposal of surplus material, all equipment, tools, labor and materials incidental thereto.

Item No.	Description	Unit
0210019A	STONE INFILTRATION TRENCH	L.S.

ITEM # 0212300A PROCESSED STONE BASE

This item shall conform to Section 3.04 PROCESSED AGGREGATE BASE, of the Form 818, amended as follows:

Materials:

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 818, 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.

NOTE: Basis of payment for this item shall include fine grading prior to paving. No separate payment shall be provided for such work.

ITEM # 0751711A 6 INCH POLYVINYL CHLORIDE UNDERDRAIN

Description:

Underdrains shall consist of pipe pervious to water, laid in a trench refilled with pervious material. They shall be of the dimensions and details as indicated on the plans. Outlets for underdrains shall consist of pipe laid in a trench and refilled with earth. The size and type of outlet pipe shall be the same as that of the underdrain to which it is connected, except that it shall not be pervious to water.

Materials:

Pipe: Shall be 6" perforated or solid schedule 40 PVC conforming to the requirements of Article M.08.01.

Aggregates: The aggregates specified for filling the trench shall be washed ¾" stone that meets the requirements of Article M.08.03- Aggregates. The washed crushed stone shall meet the gradation requirements of Table M.01.02-2 for Size No. 8 coarse aggregate.

Geotextile: Shall be TC Mirafi 170N non-woven geotextile fabric as manufactured by Tencate Geosynthetics North America or approved equal that meets the requirements of GEOTEXTILE SUBSURFACE DRAINAGE CLASS A, of the Department of Transportation "Qualified Products List for Connecticut Department of Transportation Projects", latest edition.

Construction Methods:

Trench excavation, backfill and dewatering for these items shall be in conformance with Section 2.86-Drainage Trench Excavation of the Form 818.

The dimensions of the trench shall be as indicated on the plans or as ordered. Where the bottom of the trench is unstable or in rock, the trench shall be excavated 6 inches deeper and an additional 6 inches layer of granular fill or aggregate similar to that used to fill the trench shall be placed and compacted in the trench.

Where the perforations are to be at the bottom of the pipe, the aggregate for filling the trench shall then be placed to a depth of 3 inches and tamped true to grade. The pipe shall be placed and firmly bedded on the aggregate. This aggregate shall be placed whether the pipe is encased with geotextile or not.

When the pipe used has a bell, the pipe shall be installed with the bell end upgrade with the spigot end entered fully into the adjacent bell.

After the pipe has been installed as described above, the aggregate shall be placed carefully around and over the pipe to a height of 12 inches above the top of the pipe. The remainder of the trench shall be filled with aggregate and tamped in layers as shown on the plans.

The entire length of each drain pipe shall be wrapped with geotextile and the seams lapped and welded or bonded. Where the seams of the geotextile are not welded or bonded, they shall be lapped to a minimum width equal to the diameter of the pipe for 6-inch pipe and larger and a minimum of 6 inches for smaller pipe.

In all cases where subbase material or gravel is to be placed over the underdrains, a layer of at least 6 inches of subbase material or gravel shall be placed over the underdrain immediately after its completion.

Where shown on the plans or directed by the Engineer, the Contractor shall connect underdrains or outlets to existing or proposed drainage systems or structures. This work shall be performed in a workmanlike manner satisfactory to the Engineer by installation of tees or wyes branches or by providing a hole in the main line underdrain.

Where the upgrade end of the underdrain does not enter a structure, it shall be capped or plugged as directed.

Method of Measurement:

This work will be measured for payment by the actual number of linear feet of underdrains and outlet for underdrain completed, accepted and measured in place.

Trench excavation, dewatering, backfilling and consolidation will not be measured for payment but will be considered as included in the bid price per linear foot of 6 inch Polyvinyl Chloride Underdrain.

Basis of Payment:

This work will be paid for at the contract unit price per linear foot for "6 Inch Polyvinyl Chloride Underdrain" as listed in the Bid Proposal complete in place, which price shall include pipe of the size specified, elbows, tees, wyes, couplings, fitting, trench excavation, dewatering, backfilling and consolidation, geotextile, aggregate, sand, tools, material and labor incidental thereto.

There will be no direct payment made for capping, plugging or connecting underdrains or outlets to existing or proposed drainage systems or structures, but the cost thereof shall be included in the cost of the underdrain.

Item No.	Description	Unit
0751711A	6 INCH POLYVINYL CHLORIDE UNDERDRAIN	L.F.

ITEM # 0913043A 8' POLYVINYL CHLORIDE CHAIN LINK FENCE
ITEM # 0913331A DOUBLE LEAF CHAIN LINK FENCE SWING GATE
ITEM # 0913332A SINGLE LEAF CHAIN LINK FENCE SWING GATE

Description: Work under this item includes the installation of 8' tall PVC-coated chain link fencing and accessories with 8' tall PVC-coated gates and related hardware to the lines and dimensions indicated on the construction plans and as directed by the Engineer. Work shall include all related excavation, backfill, footing installation, and all related work required for the fence installation. Fence color shall be Black.

Materials:
PRODUCT DATA:
For each type of product indicated. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for chain-link fences and gates.

1. Fence and gate posts, rails, and fittings.
2. Chain-link fabric, reinforcements, and attachments.
3. Gates and hardware.

Shop Drawings: Include plans, elevations, sections, details, and attachments to other work. Show accessories, hardware, gate operation, and operational clearances.

Samples for Initial Selection: For components with factory-applied color finishes.
Product Certificates: For each type of chain-link fence, and gate, from manufacturer.
Product Test Reports: For framing strength according to ASTM F 1043.
Warranty: Sample of special warranty.

Provide fences and gates as complete units produced by a single manufacturer, including necessary erection accessories, fittings, and fastenings.
Installation shall be performed by the manufacturer or by an experienced chain link fence installer approved by the manufacturer. Provide a rigid, plumb finished fence structure, with fabric tight and in tension.

Field Measurements: Verify layout information for chain-link fences and gates shown on Drawings in relation to property survey and existing structures. Verify dimensions by field measurements.

Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of chain-link fences and gates that fail in materials or workmanship within specified warranty period. Failures include, but are not limited to, the following:

a. Faulty operation of gate operators and controls.
b. Deterioration of metals, metal finishes, and other materials beyond normal weathering.

SETTING MATERIALS
Concrete: CDOT Form 816-2004, Article M.03.01; Class "A".
Grout: CDOT Form 816-2004, Article M.03.01-12; Non-shrink, non-staining grout.

CHAIN-LINK FENCE FABRIC
General: Provide fabric in one-piece heights measured between top and bottom of outer edge of selvage knuckle or twist. Comply with CLFMI Product Manual and with requirements indicated below:
1. Fabric Height: As indicated on Drawings.
2. Steel Wire Fabric: Wire with a diameter of 0.148 inch (9 gauge) and a breakload of 1290 lbf.
   a. Mesh Size: 2 inches diamond mesh.
   b. Polymer-Coated Fabric: PVC coated thermally fused and adhered to a primer that is thermally cured onto galvanized steel core wire, in conformance with ASTM F 668, Class 2b, 7 mil thickness thermally fused.

Color: Black, complying with ASTM F 934.
Selvage: Knuckled at both selvages.

FENCE FRAMING
Posts and Rails: Comply with ASTM F 1043 for framing, including rails, braces, and line; terminal; and corner posts. Provide members with minimum dimensions and wall thickness according to ASTM F 1043 or ASTM F 1083 based on the following:

1. Fence Height: As indicated on Drawings.

2. Heavy Industrial Strength: Material Group IA, round steel pipe, Schedule 40.
    a. Line Post: As indicated on Drawings.
    b. End, Corner and Pull Post: As indicated on Drawings.

3. Horizontal Framework Members: Intermediate top and bottom rails complying with ASTM F 1043.
    a. Top Rail: As indicated on Drawings.

4. Brace Rails: Comply with ASTM F 1043.

5. Metallic Coating for Steel Framing:
    a. Hot-dipped galvanized with a minimum average 1.8-oz./sq. ft. of coated surface area.

6. Polymer coating over metallic coating.
    a. Color: Match chain-link fabric, complying with ASTM F 934.

SWING GATES
General: Comply with ASTM F 900 for gate posts and single and double swing gate types.

Gate Frames:
Fabricate chain link swinging gates in accordance with ASTM F900 using galvanized steel tubular members, 2” square, weighing 2.60 lb/ft. Weld all joints to form a rigid onepiece unit. Vinyl coated frames Thermally fused with 10 to 15 mils of PVC per ASTM 1043. For gates over 8’ high or 15’ wide, provide Minimum 1-1/2” square additional horizontal and vertical interior members to ensure proper strength.

Gate height to match adjoining fence. Color to match adjacent fence.

Chain Link Fabric:
PVC thermally fused to metallic coated steel wire. ASTM F 668, Class2b, in color, mesh and gauge to match fence. Install fabric with hook bolts and tension bars at all 4 sides. Attach to gate frame at not more than 15” on center.

Hardware: Hot dipped galvanized steel or malleable iron shapes to suit gate size. Field coat moveable parts (e.g. hinges, latch, keeper, and drop bar) with PVC touch up paint, provided by manufacturer, to match adjacent finishes

1. Hinges: Structurally capable of supporting gate leaf and allow opening and closing without binding. Non-lift-off type hinge design shall permit gate to swing 180 degrees as indicated on the drawings.

2. Latch: Forked type capable of retaining gate in closed position permitting operation from both sides of gate with provision for padlocking accessible from both sides of gate. Latch shall comply with ADA requirements and shall have a shape easy to grasp with one hand and does not require tight grasping, tight pinching, or twisting of the wrist to operate.

3. Keeper: Provide keeper for each gate leaf over 5’ wide. Gate keeper shall consist of mechanical device for securing free end of gate when in full open position.

4. Double gates: Provide drop rod to hold inactive leaf. Provide gate stop pipe to engage center drop rod. Provide locking device and padlock for locking both gates leaves.

FITTINGS
General: Comply with ASTM F 626.

Post Caps: Formed steel, cast malleable iron, or aluminum alloy cap for tubular posts to provide weather tight closure. Provide dome caps for terminal posts. Provide loop caps for line posts to permit passage of top rail.

Rail and Brace Ends: For each gate, corner, pull, and end post.

Rail Fittings: Top Rail Sleeves: 6" sleeve allowing for expansion and contraction of top rail.

Tension and Brace Bands: Pressed steel.

Tension Bars: One piece lengths equal to 2 inches less than full height of fabric, with a minimum cross-section of 3/16" x ¾". Provide tension bars where chain link fabric meets terminal posts.

Truss Rod Assemblies: Steel rods with minimum diameter of 5/16.

Tie Wires, Clips, and Fasteners: According to ASTM F 626.

Standard Round Wire Ties: For attaching chain-link fabric to posts, rails, and frames, complying with the following:

a. 9 gauge (0.148") galvanized steel wire for attachment of fabric to line posts .Double wrap 13 gauge (0.092") for rails and braces. Hog ring ties of 12-1/2 gauge (0.0985") for attachment of fabric to tension wire.

Nuts and Bolts: Galvanized. Field-coat with PVC touch up paint.

Finish:Metallic Coating for Pressed Steel or Cast Iron: Not less than 1.2 oz. /sq. ft. zinc.

a. Polymer coating over metallic coating.

Construction Methods:

Examine areas and conditions, with Installer present, for compliance with requirements for a verified survey of property lines and legal boundaries, site clearing, earthwork, pavement work, and other conditions affecting performance of the Work. Do not begin installation before final grading is completed unless otherwise permitted by the Engineer. Proceed with installation only after unsatisfactory conditions have been corrected.

Stake locations of fence lines, gates, and terminal posts. Indicate locations of utilities, lawn sprinkler system, underground structures, benchmarks, and property monuments. Install chain-link fencing to comply with ASTM F 567 and more stringent requirements indicated.

Post Excavation: Drill or hand-excavate holes for posts to diameters and spacings indicated, in firm, undisturbed soil.

Post Setting: Set posts in concrete at indicated spacing into firm, undisturbed soil.

1. Verify that posts are set plumb, aligned, and at correct height and spacing, and hold in position during setting with concrete or mechanical devices.

2. Concrete Fill: Place concrete around posts to dimensions indicated and vibrate or tamp for consolidation. Protect aboveground portion of posts from concrete splatter.

3. Concealed Concrete: Top 2 inches below grade as indicated on Drawings to allow covering with surface material.

Terminal Posts: Locate terminal end, corner, and gate posts per ASTM F 567 and terminal pull posts at changes in horizontal or vertical alignment of 30 degrees or more as indicated on Drawings.

Line Posts: Space line posts uniformly at 10 feet o.c.

Post Bracing and Intermediate Rails: Install according to ASTM F 567, maintaining plumb position and alignment of fencing. Diagonally brace terminal posts to adjacent line posts with truss rods and turnbuckles. Install braces at end and gate posts and at both sides of corner and pull posts.

Locate horizontal braces at midheight of fabric 6' or higher, on fences with top rail and at two-third fabric height on fences without top rail. Install so posts are plumb when diagonal rod is under proper tension.

Tension Wire: Install according to ASTM F 567, maintaining plumb position and alignment of fencing. Pull wire taut, without sags. Fasten fabric to tension wire with 0.120-inch-diameter hog rings of same material and finish as fabric wire, spaced a maximum of 24 inches o.c. Install tension wire in locations indicated before stretching fabric. Provide horizontal tension wire at the following locations as indicated.

Top Rail: Install according to ASTM F 567, maintaining plumb position and alignment of fencing. Run rail continuously through line post caps, bending to radius for curved runs and terminating into rail end attached to posts or post caps fabricated to receive rail at terminal posts. Provide expansion couplings as recommended in writing by fencing manufacturer.

Intermediate and Bottom Rails: Install and secure to posts with fittings.

Chain-Link Fabric: Apply fabric to inside of enclosing framework. Leave 3 inches between finish grade or surface and bottom selvage unless otherwise indicated. Pull fabric taut and tie to posts, rails, and tension wires. Anchor to framework so fabric remains under tension after pulling force is released.

Tension or Stretcher Bars: Thread through fabric and secure to end, corner, pull, and gate posts with tension bands spaced not more than 15 inches o.c.

Tie Wires: Use wire of proper length to firmly secure fabric to line posts and rails. Attach wire at one end to chain-link fabric, wrap wire around post a minimum of 180 degrees, and attach other end to chain-link fabric per ASTM F 626. Bend ends of wire to minimize hazard to individuals and clothing.

Maximum Spacing: Tie fabric to line posts at 12 inches o.c. and to braces at 24 inches o.c.

Fasteners: Install nuts for tension bands and carriage bolts on the side of the fence opposite the fabric side.

GATE INSTALLATION
Install gates according to manufacturer's written instructions, level, plumb, and secure for full opening without interference. Attach fabric as for fencing. Attach hardware using tamper-resistant or concealed means. Install ground-set items in concrete for anchorage. Adjust hardware for smooth operation and lubricate where necessary.

Adjust gates to operate smoothly, easily, and quietly, free of binding, warp, excessive deflection, distortion, nonalignment, misplacement, disruption, or malfunction, throughout entire operational range. Confirm that latches and locks engage accurately and securely without forcing or binding.

Lubricate hardware and other moving parts.

Method of Measurement:

8' Polyvinyl Chloride Chain Link Fence will be measured by the actual number of linear feet of completed and accepted fence.

Double Leaf Chain Link Fence Swing Gate will be measured as a unit for each double leaf gate installed and accepted.

Single Leaf Chain Link Fence Swing Gate will be measured as a unit for each single leaf gate installed and accepted.

Basis of Payment:

Work completed under the item 8' Polyvinyl Chloride Chain Link Fence shall be measured and paid for at the contact unit price per linear foot of "8' Polyvinyl Chloride Chain Link Fence" as listed in the bid proposal, which price shall include all materials, equipment, tools,labor, and work incidental thereto.

Work completed under the item Double Leaf Chain Link Fence Swing Gate shall be measured and paid for at the contact unit price per each "Double Leaf Chain Link Fence Swing Gate" as listed in the bid proposal, which price shall include all materials, equipment, tools,labor, and work incidental thereto.

Work completed under the item Single Leaf Chain Link Fence Swing Gate shall be measured and paid for at the contact unit price per each "Single Leaf Chain Link Fence Swing Gate" as listed in the bid proposal, which price shall include all materials, equipment, tools,labor, and work incidental thereto.

Item No.	Description	Unit
0913043A	8' POLYVINYL CHLORIDE CHAIN LINK FENCE	L.F.
0913331A	DOUBLE LEAF CHAIN LINK FENCE SWING GATE	EA.
0913332A	SINGLE LEAF CHAIN LINK FENCE SWING GATE	EA.

ITEM # 0921040A STONE DUST COURT EDGE

Description:

The work under this item shall consist of furnishing, placing, shaping, and compacting a stone dust surface treatment along the outside perimeter of the pickleball court to the dimensions, lines, grades, and depth as shown on the plans and as directed by the Engineer.

Materials:

Stone dust shall be native blue-grey crushed trap rock conforming to Form 818, Article M.01.03-Fine Aggregates, Table M.01.03-2 Gradation: “dust”.

Construction Methods:

Verify that the subgrade is true to line and grade, and compacted to the required density. Subgrade surface shall be smooth and free of irregularities, depressions, or unsuitable material.

Spread and compact stone dust to achieve the depth as detailed after final compaction. The material shall be wetted and rolled to a firm, even surface, level with the adjacent bituminous pavement.

Provide additional material, recompact, and sprinkle with water on subsequent days as necessary to thoroughly bond the surface.

Maintain proper drainage to prevent washouts and flooding throughout construction and warranty period of the project. Protect from damage and make repairs as required.

Method of Measurement:

Stone Dust Court Edge will be measured by the actual number of square feet of completed and accepted Stone Dust Court Edge.

Basis of Payment:

Work completed under this item shall be measured and paid for at the contact unit price per square foot of “Stone Dust Court Edge” as listed in the bid proposal, which price shall include all materials, equipment, tools,labor, and work incidental thereto.

Item No.	Description	Unit
0921040A	STONE DUST COURT EDGE	S.F.

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:

Topsoil shall conform to the requirements of Article M.13.01.1 of the Form 818.

Construction Methods:

Topsoil shall be placed in all other disturbed areas designated for turf establishment as shown on the plans.

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:

Furnishing and Placing Topsoil will be measured by the actual number of square feet of completed and accepted Furnishing and Placing Topsoil.

The limits of payment shall be to the slope limits as shown on the plans.

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. This price shall include all stripping, stockpiling, screening, hauling, re-handling, raking, and other processing of topsoil from off-site or on-site sources and all materials, equipment, tools, and labor incidental thereto.

Item No.	Description	Unit
0944000A	FURNISHING AND PLACING OF TOPSOIL	S.Y.

ITEM # 0950005A **TURF ESTABLISHMENT**
ITEM # 0950017A **TURF ESTABLISHMENT-WETLAND WILDFLOWER MIX**

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, wetland wildflower mix, seed, and mulch on all areas to be treated as shown on the plans or where designated by the Engineer.

Materials:

The materials for this work shall conform to the requirements of Section M.13 of the Form 818, 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 Wildflower Mix for Water Quality Basin area shall be “New England Wildflower Mix” as listed within New England Wetland Plants, Inc.'s catalog or approved equal.

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" reseeding 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 areas of Turf Establishment 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. Areas of Wetland Seeding shall not be mowed.

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 turf established slopes of 4:1 or flatter and level turf established (seeded) areas to a height of 3 inches when the grass growth attains a height of 6 inches. Wetland Seeding areas shall not be mowed. Clean-up shall include, but not be limited to, the removal of all debris from the turf establishment and wetland seeding 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 wildflower mix 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 “Turf Establishment- Wetland Wildflower Mix” 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.

Item No.	Description	Unit
0950005A	TURF ESTABLISHMENT	S.Y.
0950017A	TURF ESTABLISHMENT-WETLAND WILDFLOWER MIX	S.Y.

ITEM # 1401001A **PICKLEBALL COURT SURFACE TREATMENT**
ITEM # 1401002A **PICKLEBALL COURT LINE MARKING**
ITEM # 1401003A **PICKLEBALL NET POST**
ITEM # 1401004A **PICKLEBALL NET**

Description:

Work under this item shall consist of furnishing and installing a Plexipave® acrylic latex court surface treatment system or approved equal on a new bituminous asphalt surface, furnishing and placing of Plexicolor® court line markings, furnishing and placing of court net posts and nets in the locations and to the lines and grades indicated on the plans or as directed by the Engineer.

Quality Assurance:

1. **Installer Qualifications:** Contractor shall be an experienced Installer(s) who has/have successfully completed similar court installations to that indicated for this Project and is a certified installer for the specific court surfacing product indicated or approved. Contractor shall provide the Engineer with a list of five (5) similar projects completed within the past 5 years including project description, location, and owner contact information for review and approval by the Engineer.

2. **Warranty:** Installer shall provide, protect and install furnishings in a manner which does not void any manufacturer's warranties.

   A. The finished pickleball surface shall have a written warranty covering the labor and materials from the contractor and the manufacturer respectively. The surfacing contractor shall provide the Engineer with an "Authorized Applicators Certificate" from the manufacturer before the start of construction on the entire project.

3. All manufacturers shall have a minimum of 5 years' experience in producing site amenities.

4. Manufacturers shall submit a list of at least 5 sites where their product is located.

5. All metals and woods specified shall conform to standards defined by societies and associations normally associated with technical requirements of materials and their performance standards.

6. All products shall be free of cracks, and any other defect at the time of delivery. All units are to be placed in a storage area, protected from damage prior to and during transit to the Owner's or Contractor's site within the limits of the project area until which time the Contractor is ready to install the units.

7. In the event any of the site improvements or any component are deemed defective and unacceptable, the product(s) shall be replaced at no additional cost to the Owner.

8. The Contractor shall be, at a minimum, be responsible for all quality assurance/quality control of horizontal and vertical alignments (direction and grading) and provide all necessary requirements.

9. The Plexipave® System material requirements are the standard specification to which other surfaces must conform. Any products to be approved as an equal to the specified product must conform to the materials and application requirements of this specification. Any binders, to be considered equal, must have written confirmation by the manufacturer that they have been produced specifically for the use in court surface construction. For products other the Plexipave System, the contractor shall submit sufficient data, drawings, samples and literature to demonstrate to the owners satisfaction that the proposed substitution is of equal quality and utility to that originally specified. Information must include a QUV test of at least 1000 hours illustrating the UV stability of the system. The color system shall have an ITF pace rating in Category 2. Under no circumstances will systems from multiple manufacturers be considered.

Delivery, Storage and Handling:

1. Protect furnishings against soilage and damage during storage and construction by use of padding or barriers as required to maintain furnishings in undamaged condition.

2. Review finishes and structures of furnishings prior to, during and after installation for blemishes, defects or inconsistencies that may be subject to rejection by the Engineer. Remove from the site unsatisfactory furnishings and replace at no additional cost to the Owner.

Materials:

Pickleball Court Surface and Line Marking:

Plexipave Court Patch Binder: Shall comply with Specification 10.14 of California Products Corporation or approved equal.

Plexipatch: Shall comply with Specification 10.21 of California Products Corporation or approved equal.

Acrylic Resurfacer: Shall comply with Specification 10.8 of California Products Corporation or approved equal.

Plexipave Color Base: Shall conform to Specification 10.5 of California Products Corporation or approved equal.

Plexicolor Line Paint: Shall conform to Specification 10.4 of California Products Corporation or approved equal.

Water: The water used in all mixtures shall be fresh and potable.

Colors: Finish color of the Plexipave System and Line Marking shall be stock colors as selected by the Owner. Three separate court surfaces colors will be required with unique colors to be selected for the play area, kitchen area, and out of bounds area as directed by the Owner.

Center Straps:

Provide standard permanent center strap anchors of 100% synthetic nylon webbing, complete with all hardware. MacGregor MTC Strap or approved equal. Center strap anchor with concrete footing shall be installed according to the construction details.

Pickleball Nets:

Nets: Shall be a tournament quality pickleball net for each pickleball court of the appropriate length to match court width. Nets shall be compatible with pickleball net posts and center strap.

1. Headbands shall be quadruple-stitched heavy-duty two-ply polyester web; 34 oz. minimum

2. Cable: 3/16” steel cable vinyl-coated with 3,800 lb. test strength.

3. Net: 3.5mm braided black knotless nylon weather treated with Nyothene for ultra-violet moisture protection. Break strength over 300 lbs. Double rows of netting for the top 5 rows under the headband, along the entire length of the net.

4. Side and Bottom tapes of HD vinyl-coated nylon-locked stitched to body for durability.

5. Side pockets to be grommeted with dowels made of HD metal or fiberglass for even tension.

6. Net shall include a center strap anchor with concrete footing as shown in the construction details.

Pickleball Net Posts:

1. Contractor shall provide and install two (2) Edwards 3" Classic Round Pickleball net posts, or approved equal, for each of the pickleball courts.

2. Net posts must be installed in ground sleeves.

3. Net posts must be polyester powder coated. Color: Black

Construction Methods:

General:

1. Execution and installation shall meet or exceed the minimum requirements as depicted on the Contract Documents and must meet or exceed all installation requirements as outlined by the manufacturer.

2. The Contractor shall be, at a minimum, responsible for all quality assurance/quality control of horizontal and vertical alignments (direction and grading) and provide all necessary requirements.

3. Allow new asphalt to cure a minimum of 14 days.

4. Pressure clean the entire surface. Power blowers should be used to remove dust and debris. Pressure washing may be needed to remove stains. Pressure should be less than 2,500 lbs./in^2.

Pickleball Court Surface:

1. **Surface Preparation:**

    A. The surface to be coated shall be sound, smooth of uniform texture, and free from dust, dirt, grease, or oils and any other deleterious materials. Prior to the application of surfacing materials, the entire surface should be flooded and checked for minor depressions or irregularities. Any puddle area covering a nickel shall be marked and repaired with Court Patch Binder after all cracks are treated with Armor Crack or approved equal system, using the following mix:

        1. 100 lbs. 60-80 mesh silica sand (dry)
        2. 3 gallons Plexipave Court Patch Binder
        3. 1 to 2 gallons Portland Cement (dry), (depending on humidity and temperature).

    B. Tack coat consisting of 1-part Court Patch Binder and 2 parts water shall be applied to the patch areas and allowed to dry thoroughly. See California Products Specification 10.14 and 10.21.

2. **Surface Course Preparation:**

    A. In order to provide a summary dense underlayment for the final Plexipave® System, Contractor shall include one application of California Products Acrylic Resurfacer applied to the surface to obtain a coverage of 15-20 sq. yds. Per gallon, (0.07-0.05 gallons per square yard). No application shall be covered by a succeeding application until thoroughly cured. Dilution with water and sand is required utilizing the following mix:

        1. Acrylic Resurfacer — 55 Gallons
        2. Water (clean & potable) — 20-40 Gallons
        3. Sand (60-80 Mesh) — 600-900 lbs.

4. Liquid Yield 112-138 Gallons

3. **Fortified Plexipave:**

A. Fortified Plexipave shall be applied by rubber bladed squeegee on the clean dry surface in 3 applications to obtain a total quantity of not less than .15 nor more than .23 gallons per sq. yd. of area, based on material prior to any dilution. No application shall be covered by a succeeding application until thoroughly cured. Fortified Plexipave can be job mixed as follows:

1. Plexipave Color Base 30 Gallons
2. Plexichrome 20 Gallons
3. Water (clean & potable) 20 Gallons

The diluted material shall be homogenous. Segregation before and during application shall not be permitted.

B. The finish surface shall have a uniform appearance and be free from ridges and tool marks.

C. Four hours minimum after completion of the color resurfacing, 2" inch wide playing lines shall be accurately located, marked, and painted with Plexicolor Line Paint as specified by the U.S. Pickleball Association.

D. Limitations

1. No parts of the construction involving the Plexipave System shall be conducted during rainfall or when rainfall is imminent. The air temperature must be at least 50 degrees F and rising. Do not apply system when surface temperature is above 140 degrees F.

2. Allow new asphalt surface 14 days to cure before applying Plexipave System.

Pickleball Court Nets and Posts:

A. Provide net and net posts to owner with manufacturer's warranty information.

Clean Up and Maintenance:

A. Upon completion of all work, the Contractor shall remove all containers, surplus materials, and debris; the site will be left in a clean orderly manner acceptable to the Engineer and Owner.

B. The Contractor shall provide the Owner written maintenance requirements and review those requirements with the Owner at the completion of the project.

Method of Measurement:

"Pickleball Court Surface Treatment" will be measured by the actual number of square yards of completed and accepted court surface treatment.

"Pickleball Court Line Marking" will be measured by the number of courts for each complete court where all required lining and marking has been completed and accepted.

"Pickleball Net Post" will be measured by the actual number of each completed and accepted pickleball net post installed.

"Pickleball Net" will be measured by the actual number of each completed and accepted pickleball net installed. Center strap and center strap anchor will not be measured for payment, rather this work shall be included in the contract unit price for "Pickleball Net".

Basis of Payment:

"Pickleball Court Surface Treatment" will be paid for at the contract unit price per square yard of Pickleball Court Surface Treatment, complete in place and accepted, which price shall include all surface preparation, tack coat, disposal of surplus material, all equipment, tools, labor and materials incidental thereto.

"Pickleball Court Line Marking" will be paid for at the contract unit price per each court of Pickleball Court Line Marking, complete in place and accepted, which price shall include all surface preparation, disposal of surplus material, all equipment, tools, labor and materials incidental thereto.

"Pickleball Net Post" will be paid for at the contract unit price per each Pickleball Net Post installed, complete in place and accepted, which price shall include all surface preparation, disposal of surplus material, all equipment, tools, labor and materials incidental thereto.

"Pickleball Net" will be paid for at the contract unit price per each Pickleball Net installed, complete in place and accepted, which price shall include all surface preparation, center strap and center strap anchors, disposal of surplus material, all equipment, tools, labor and materials incidental thereto.

Item No.	Description	Unit
1401001A	PICKLEBALL COURT SURFACE TREATMENT	S.Y.
1401002A	PICKLEBALL COURT LINE MARKING	EA.
1401003A	PICKLEBALL NET POST	EA.
1401004A	PICKLEBALL NET	EA.

ATTACHMENT A:
PREVAILING WAGE RATES

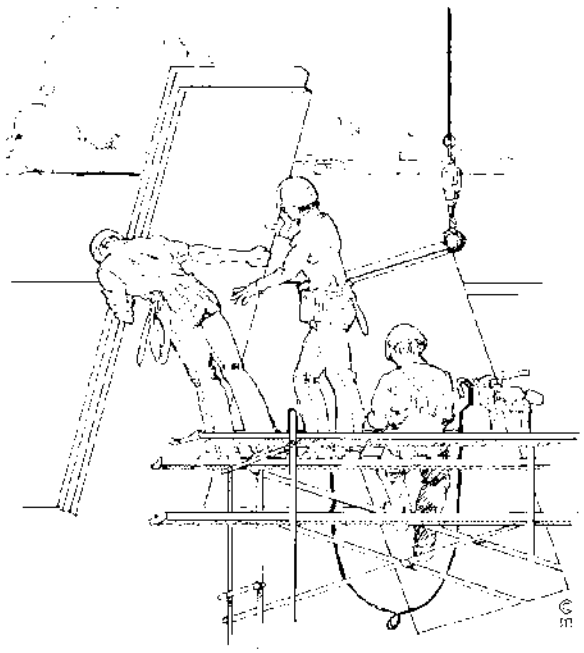
~NOTICE~

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 ULTMATELY ARISE CONCERNIG 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.

[New] In accordance with Section 31-53b(a) of the C.G.S. each contractor shall provide a copy of the OSHA 10 Hour Construction Safety and Health Card for each employee, to be attached to the first certified payroll on the project.

In accordance with Connecticut General Statutes, 31-53
Certified Payrolls with a statement of compliance
shall be submitted monthly to the contracting agency.

PAYROLL CERTIFICATION FOR PUBLIC WORKS PROJECTS

WEEKLY PAYROLL

Connecticut Department of Labor
Wage and Workplace Standards Division
200 Folly Brook Blvd.
Wethersfield, CT 06109

CONTRACTOR NAME AND ADDRESS:			SUBCONTRACTOR NAME & ADDRESS	WORKER'S COMPENSATION INSURANCE CARRIER POLICY # EFFECTIVE DATE: EXPIRATION DATE:
PAYROLL NUMBER	Week-Ending Date	PROJECT NAME & ADDRESS		

PERSON/WORKER, ADDRESS and SECTION	APPR RATE %	MALE/ FEMALE AND RACE*	WORK CLASSIFICATION Trade License Type & Number - OSHA 10 Certification Number	DAY AND DATE / HOURS WORKED EACH DAY S	M	T	W	TH	F	S	Total ST Hours Total O/T Hours	BASE HOURLY RATE TOTAL FRINGE BENEFIT PLAN CASH	TYPE OF FRINGE BENEFITS Per Hour 1 through 6 (see back)	GROSS PAY FOR ALL WORK PERFORMED THIS WEEK	TOTAL DEDUCTIONS FICA	FEDERAL WITH-HOLDING	STATE WITH-HOLDING	LIST OTHER	GROSS PAY FOR THIS PREVAILING RATE JOB	CHECK # AND NET PAY
												$ Base Rate $ Cash Fringe	1. $ 2. $ 3. $ 4. $ 5. $ 6. $							
												$ Base Rate $ Cash Fringe	1. $ 2. $ 3. $ 4. $ 5. $ 6. $							
												$ Base Rate $ Cash Fringe	1. $ 2. $ 3. $ 4. $ 5. $ 6. $							
												$ Base Rate $ Cash Fringe	1. $ 2. $ 3. $ 4. $ 5. $ 6. $							

12/9/2013 *IF REQUIRED
WWS-CP1

*SEE REVERSE SIDE

PAGE NUMBER ______OF

OSHA 10 ~ATTACH CARD TO 1ST CERTIFIED PAYROLL

***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)

*****THIS IS A PUBLIC DOCUMENT*****
*****DO NOT INCLUDE SOCIAL SECURITY NUMBERS*****

Weekly Payroll Certification For Public Works Projects (Continued)

PAYROLL CERTIFICATION FOR PUBLIC WORKS PROJECTS

WEEKLY PAYROLL

Week-Ending Date:
Contractor or Subcontractor Business Name:

PERSON/WORKER, ADDRESS and SECTION	APPR RATE %	MALE/ FEMALE AND RACE*	WORK CLASSIFICATION / Trade License Type & Number - OSHA 10 Certification Number	DAY AND DATE / HOURS WORKED EACH DAY: S	M	T	W	TH	F	S	Total ST Hours / Total O/T Hours	BASE HOURLY RATE / TOTAL FRINGE BENEFIT PLAN CASH	TYPE OF FRINGE BENEFITS Per Hour 1 through 6 (see back)	GROSS PAY FOR ALL WORK PERFORMED THIS WEEK	TOTAL DEDUCTIONS: FICA	FEDERAL WITH-HOLDING	STATE WITH-HOLDING	LIST OTHER	GROSS PAY FOR THIS PREVAILING RATE JOB	CHECK # AND NET PAY
												$ Base Rate $ Cash Fringe	1. $ 2. $ 3. $ 4. $ 5. $ 6. $							
												$ Base Rate $ Cash Fringe	1. $ 2. $ 3. $ 4. $ 5. $ 6. $							
												$ Base Rate $ Cash Fringe	1. $ 2. $ 3. $ 4. $ 5. $ 6. $							
												$ Base Rate $ Cash Fringe	1. $ 2. $ 3. $ 4. $ 5. $ 6. $							
												$ Base Rate $ Cash Fringe	1. $ 2. $ 3. $ 4. $ 5. $ 6. $							

*IF REQUIRED

NOTICE: THIS PAGE MUST BE ACCOMPANIED BY A COVER PAGE (FORM # WWS-CP1)

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#: 21-24919

Connecticut Department of Labor
Wage and Workplace Standards Division

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 to the welfare and pension fund shall pay this amount to each employee as part of his/her hourly wages.

Project Number: PW-2109
Project Town: Glastonbury
State#: PW-2109
FAP#: Glastonbury

Project: Riverfront Community Center Pickleball Courts Installation (Glastonbury)

CLASSIFICATION	Hourly Rate	Benefits
1) Boilermaker	33.79	34% + 8.96
1a) Bricklayer, Cement Masons, Cement Finishers, Plasterers, Stone Masons	36.45	34.44
2) Carpenters, Piledrivermen	35.57	25.65
2a) Diver Tenders	35.57	25.65
3) Divers	44.03	25.65
03a) Millwrights	35.64	26.49
4) Painters: (Bridge Construction) Brush, Roller, Blasting (Sand, Water, etc.), Spray	53.9	22.90
4a) Painters: Brush and Roller	36.42	22.90
4b) Painters: Spray Only	39.42	22.90
4c) Painters: Steel Only	38.42	22.90
4d) Painters: Blast and Spray	39.42	22.90
4e) Painters: Tanks, Tower and Swing	38.42	22.90

As of: July 27, 2021

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)	40.75	30.47+3% of gross wage
6) Ironworkers: Ornamental, Reinforcing, Structural, and Precast Concrete Erection	38.17	38.02 + 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)	45.83	33.50
----LABORERS---- -		
8) Group 1: Laborer (Unskilled), Common or General, acetylene burner, concrete specialist	31.5	23.25
9) Group 2: Chain saw operators, fence and guard rail erectors, pneumatic tool operators, powdermen	31.75	23.25
10) Group 3: Pipelayers	32.0	23.25
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	32.0	23.25
12) Group 5: Toxic waste removal (non-mechanical systems)	33.5	23.25
13) Group 6: Blasters	33.25	23.25
Group 7: Asbestos/lead removal, non-mechanical systems (does not include leaded joint pipe)	32.5	23.25
Group 8: Traffic control signalmen	18.0	23.25
Group 9: Hydraulic Drills	32.25	23.25
----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	33.73	23.25 + a
13b) Brakemen, Trackmen	32.76	23.25 + a
----CLEANING, CONCRETE AND CAULKING TUNNEL----		

14) Concrete Workers, Form Movers, and Strippers	32.76	23.25 + a
15) Form Erectors	33.09	23.25 + a
----ROCK SHAFT LINING, CONCRETE, LINING OF SAME AND TUNNEL IN FREE AIR:----		
16) Brakemen, Trackmen, Tunnel Laborers, Shaft Laborers	32.76	23.25 + a
17) Laborers Topside, Cage Tenders, Bellman	32.65	23.25 + a
18) Miners	33.73	23.25 + a
----TUNNELS, CAISSON AND CYLINDER WORK IN COMPRESSED AIR: ----		
18a) Blaster	40.22	23.25 + a
19) Brakemen, Trackmen, Groutman, Laborers, Outside Lock Tender, Gauge Tenders	40.02	23.25 + a
20) Change House Attendants, Powder Watchmen, Top on Iron Bolts	38.04	23.25 + a
21) Mucking Machine Operator	40.81	23.25 + a
----TRUCK DRIVERS----(*see note below)		
Two axle trucks	30.16	27.16 + a
Three axle trucks; two axle ready mix	30.27	27.16 + a
Three axle ready mix	30.33	27.16 + a
Four axle trucks, heavy duty trailer (up to 40 tons)	30.39	27.16 + a
Four axle ready-mix	30.44	27.16 + a
Heavy duty trailer (40 tons and over)	30.66	27.16 + a

Specialized earth moving equipment other than conventional type on-the road trucks and semi-trailer (including Euclids)	30.44	27.16 + a
----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)	43.88	25.80 + a
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)	43.53	25.80 + a
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)	42.72	25.80 + a
Group 4: Trenching Machines; Lighter Derrick; Concrete Finishing Machine; CMI Machine or Similar; Koehring Loader (Skooper)	42.3	25.80 + 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	41.65	25.80 + a
Group 5 continued: Side Boom; Combination Hoe and Loader; Directional Driller.	41.65	25.80 + a
Group 6: Front End Loader (3 up to 7 cubic yards); Bulldozer (rough grade dozer).	41.31	25.80 + a
Group 7: Asphalt Roller; Concrete Saws and Cutters (ride on types); Vermeer Concrete Cutter; Stump Grinder; Scraper; Snooper; Skidder; Milling Machine (24	40.94	25.80 + a
Group 8: Mechanic, Grease Truck Operator, Hydroblaster, Barrier Mover, Power Stone Spreader; Welder; Work Boat under 26 ft.; Transfer Machine.	40.51	25.80 + 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).	40.04	25.80 + a
Group 10: Vibratory Hammer, Ice Machine, Diesel and Air Hammer, etc.	37.81	25.80 + a
Group 11: Conveyor, Earth Roller; Power Pavement Breaker (whiphammer), Robot Demolition Equipment.	37.81	25.80 + a
Group 12: Wellpoint Operator.	37.74	25.80 + a

As of: July 27, 2021

Group 13: Compressor Battery Operator.	37.11	25.80 + a
Group 14: Elevator Operator; Tow Motor Operator (Solid Tire No Rough Terrain).	35.87	25.80 + a
Group 15: Generator Operator; Compressor Operator; Pump Operator; Welding Machine Operator; Heater Operator.	35.43	25.80 + a
Group 16: Maintenance Engineer/Oiler	34.72	25.80 + a
Group 17: Portable asphalt plant operator; portable crusher plant operator; portable concrete plant operator.	39.42	25.80 + a
Group 18: Power Safety Boat; Vacuum Truck; Zim Mixer; Sweeper; (minimum for any job requiring CDL license).	36.77	25.80 + 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
27) Linemen, Cable Splicers, Dynamite Men	41.22	6.5% + 12.20

As of: July 27, 2021

28) Material Men, Tractor Trailer Drivers, Equipment Operators	35.04	6.5% + 10.45

As of: July 27, 2021

Project: Riverfront Community Center Pickleball Courts Installation (Glastonbury)

Welders: Rate for craft to which welding is incidental.

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

***Note: Hazardous waste premium $3.00 per hour over classified rate*

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

3) Cranes (under 100 ton rated capacity)

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 site ratio shall not be less than one full-time journeyperson instructing and supervising the work of each apprentice in a specific trade.

~~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: July 27, 2021

Project: Riverfront Community Center Pickleball Courts Installation (Glastonbury)

~~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: July 27, 2021

Important Information:
For use with Building, Heavy/Highway, and Residential

Welders: Rate for craft to which welding is incidental.

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

**Note: Hazardous waste premium $3.00 per hour over classified rate.

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; holsting engineer (2 drums or over)
2) Cranes (100 ton rate capacity and over) Bauer Drill/Caisson
3) Cranes (under 100 ton rated capacity)

Crane with boom including jib, 150 feet - $1.50 extra.

Crane with boom including jib, 200 feet - $2.50 extra.

Crane with boom including jib, 250 feet - $5.00 extra.

Crane with boom including jib, 300 feet - $7.00 extra.

Crane with boom including jib, 400 feet - $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 site ratio shall not be less than one full-time journeyperson instructing and supervising the work of one apprentice in a specific trade.

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

- 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.ctdol.state.ct.us.
- 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.

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 Persons 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.

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.

ATTACHMENT B
ENVIRONMENTAL PERMITS

July 6, 2021

MEMORANDUM

To: Lisa Zerio, Director of Parks & Recreation

From: Thomas Mocko, Environmental Planner

RE: Approved Wetlands Regulated Activity at 300 Welles Street

Dear Ms. Zerio:

Pursuant to Section 12 of Glastonbury's Inland Wetlands and Watercourses Regulations, you are hereby **approved to conduct your activities of constructing a pickleball court facility within the wetlands' uplands review area at 300 Welles Street, as represented by the plans date June 14, 2021** submitted to our office. This approval is contingent upon **your responsibility**:

1. **To publish this approval on the Town website or (one time) in a newspaper** that circulates in Glastonbury within 10 days of the date of this approval letter to you;
2. **to await a 15-day appeal period** (15 days from the date of website or newspaper publication) before beginning any work within the upland review area;
3. **to incorporate mitigation measures** that appear on the submitted site plan during construction; and
4. **to return to the CC/IWWA** with the details of any future plans to provide outdoor lighting of the courts for their review and approval.

Attached for your consideration and potential use is a draft public notice advertisement that needs to be published once by you in a newspaper that circulates in Glastonbury.

Please call (860) 652-7511 to advise us when the notice is to appear and in what newspaper, or if you have any questions.

Sincerely,

Tom Mocko

Tom Mocko
Environmental Planner

cc: Richard J. Johnson, Town Manager
Daniel Pennington, Town Engineer
Rebecca Augur, Director of Planning & Land Use Services

WETAGTAP24.wpd
/enclosure
TM: dl

PUBLIC NOTICE
TOWN OF GLASTONBURY, CT

On July 6, 2021, the duly authorized agent of the Glastonbury Inland Wetlands & Watercourses Agency approved the construction of a pickleball court facility within the wetlands' uplands review area at 300 Welles Street (Riverfront Community Center).

Lisa Zerio, Director of Parks & Recreation

ATTACHMENT C:
CONSTRUCTION PLANS

UNDER SEPARATE COVER