PROJECT MANUAL

TRAIN WRECK MEMORIAL PARK

EAST THOMPSON ROAD

TOWN OF THOMPSON

MARCH 2024

Information for Bidders, Bid Proposal
General Conditions, Special Conditions, Form of Contract
And Technical Specifications

J & D CIVIL ENGINEERS, LLC

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23239

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TRAIN WRECK MEMORIAL PARK

TOWN OF THOMPSON

MARCH 2024

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TRAIN WRECK PARK
ADVERTISEMENT FOR BIDS

Separate sealed bids for the construction of **"Train Wreck Park "** will be received in the Selectmen's Office, 815 Riverside Drive, Thompson, CT 06255 until 2:00 PM Local Time on Tuesday May 21, 2024. All proposals recorded as received by the deadline will be opened publicly at the first regular meeting of the Board of Selectmen following the close of the bid period at the Merrill Seney Community Room at the Town Hall 815 Riverside Drive, North Grosvenordale, CT. Bids must be in a sealed envelope clearly marked **"Train Wreck Park".** Respondents may be present at the opening; however, there will be no public reading of bids.

Work under this contract includes two separate bid items:

1. Turntable Interpretive Area: clearing, masonry, earthwork, etc.
2. Parking Lot Area: earthwork, drainage, paving, signage, etc.

Bidders may bid on either, or both bid items.

The Town of Thompson, will be using the web page https://www.thompsonct.org/bids on the Town's web site as a method of getting all pertinent information out on the project. All necessary documents including bids sets, specifications, addendum and any addition information will be placed on the web page.

Bidder's attention is called to the requirements as to the conditions of employment to be observed and to the requirements for commencement and completion of the work.

No bidder may withdraw his bid within 90 days after the actual date of the bid opening.

The Town reserves the right to reject any and all bids or any part thereof, to waive defects in the same, or to accept any proposal or any part thereof deemed to be in the best interest of the Town of Thompson, Connecticut. The Town may award the two parts of the contract to two different bidders.

All bidders are requested to note that the award of this Contract is subject to the following conditions and contingencies:
1) The approval of such governmental agencies as may be required by law.
2) The appropriation of adequate funds by the proper agencies.

An Affirmative Action/Equal Opportunity Employer. Minority/Women's Business Enterprises are encouraged to apply.

AMY ST. ONGE, FIRST SELECTMAN
TOWN OF THOMPSON, CONNECTICUT

INFORMATION FOR BIDDERS

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INFORMATION FOR BIDDERS

1. Receipt and Opening of Bids

The Town of Thompson, CT, herein called the "OWNER" invites sealed bids on the separate copies of bid forms furnished for that purpose, all blanks of which must be appropriately filled in. The bound-in bid forms in the Contract Documents are for continuity and the convenience of BIDDERS and are not to be detached from the Contract Documents, filled out or executed.

The Town of Thompson, will be using the web page https://www.thompsonct.org/bids on the Town's web site as a method of getting all pertinent information out on the project. All necessary documents including bids sets, specifications, addendum and any addition information will be placed on the web page. These documents will be under the specific project name. It shall be the responsibility of all firms and contractors to check the web page and download the appropriate documents including all addendums. No notice will be sent informing contractor's and firms that there is new information or addendums. This is the responsibility of the individual firms and/or contractors. Any questions or problems with the web page should be directed to Marie Mongeau, 860-923-9561, selectmensoffice@thompsonct.org.

There will be a non-mandatory pre-bid conference for this project at the site gravel parking lot on April 17, 2024 at 2:00 PM.

Separate sealed bids for the construction of **"Train Wreck Park "** will be received in the Selectmen's Office, 815 Riverside Drive, Thompson, CT 06255 until 2:00 PM Local Time on Tuesday May 21, 2024. All proposals recorded as received by the deadline will be opened publicly at the first regular meeting of the Board of Selectmen following the close of the bid period at the Merrill Seney Community Room at the Town Hall 815 Riverside Drive, North Grosvenordale, CT. Bids must be in a sealed envelope clearly marked **"Train Wreck Park".** Respondents may be present at the opening; however, there will be no public reading of bids.

The OWNER may consider informal any bid not prepared and submitted in accordance with the provisions hereof and may waive any informalities or reject any and all bids. 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 90 days after the actual date of the opening thereof. Should there be reasons why the CONTRACT cannot be awarded within the specified period, the time may be extended by mutual agreement between the OWNER and the BIDDER.

2. Preparation of Bid

Each bid must be submitted on the prescribed bid forms, separate blank forms for which are furnished for that purpose. All blank spaces for bid prices must be filled in, typed or printed in ink, in both words and figures.

Each bid must be submitted in a sealed envelope and bearing on the outside the name of the BIDDER, his address, and the name of the project for which the bid is submitted. If forwarded by mail, the sealed envelope containing the bid must be enclosed in another envelope addressed as specified above.

BIDDERS must satisfy themselves of the accuracy of the bid documents by examination of the site and a review of the Drawings and Specifications including ADDENDA. After Bids have been submitted, the BIDDER shall not assert that there was a misunderstanding concerning the quantities of work, or the nature of the work to be done.

3. Subcontracts

The BIDDER is specifically advised that any person, firm or other party to whom it is proposed to award a Subcontract under this CONTRACT must be acceptable to the OWNER.

4. Surveys

The Engineer will establish bench marks for the use by the contractor in laying out the work. The Contractor shall employ a Land Surveyor registered in the State of CT to set all points and grades required for construction as specified in the General Conditions.

5. Qualifications of Bidder

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

Any CONTRACTOR who is in litigation or arbitration with the Owner at the time of the bid opening, or prior to the execution of the CONTRACT, shall not be considered an acceptable BIDDER and shall be disqualified. The BIDDER must not be in violation of Public Act 89-368, Section 6, of the Connecticut General Statutes, regarding violations of the occupational safety and health act.

6. Bid Security

Each bid must be accompanied by cash, certified check or a bid bond in the amount of not less than 5% of the bid nor more than $50,000.00. Such cash or checks shall be returned to all except the three lowest bidders within 3 days after the opening of bids. The bid security of the apparent successful bidder will be retained until the owner awards the contract to such bidder and such bidder has executed the contract documents, furnished the required contract security and met the other conditions of the contract documents. If the successful bidder fails to execute and deliver the contract documents and furnish the required contract security within 10 days after notice of award, the bid security of the bidder will be forfeited.

7. Damages for Failure to Enter into Contract

The party to whom the CONTRACT is awarded will be required to execute the AGREEMENT, without modification, exception or condition, and obtain the PERFORMANCE BOND and

PAYMENT BOND within ten (10) calendar days from the date when Notice of Award is delivered to the BIDDER. The Notice of Award shall be accompanied by the necessary AGREEMENT and BOND forms. In case of failure of the BIDDER to execute the AGREEMENT, the OWNER may at his option, consider the BIDDER in default, in which case the bid security accompanying the proposal shall become the property of the Owner.

8. Execution of Contract and Notice to Proceed

The OWNER within ten (10) days of receipt of acceptable PERFORMANCE BOND, PAYMENT BOND and AGREEMENT signed by the party to whom the AGREEMENT was awarded shall sign the AGREEMENT and return to such party an executed duplicate of the AGREEMENT. Should the OWNER not execute the AGREEMENT within such period, the BIDDER may by written notice withdraw his signed AGREEMENT. Such notice of withdrawal shall be effective upon receipt of the notice by the OWNER.

The Notice to Proceed shall be issued within ten (10) days of the execution of the AGREEMENT by the OWNER. Should there be reasons why the Notice to Proceed cannot be issued within such period, the time may be extended by mutual AGREEMENT between the OWNER and the CONTRACTOR. If the Notice to Proceed has not been issued within the ten (10) day period or within the period mutually agreed upon, the CONTRACTOR may terminate the AGREEMENT without further liability on the part of either party.

The Contract Documents contain the provisions required for the construction of the project. Information obtained from an officer, agent, or employee of the OWNER or any other person shall not affect the risks or obligations assumed by the CONTRACTOR or relieve him from fulfilling any of the conditions of the CONTRACT.

9. Time of Completion and Liquidated Damages

BIDDER must agree to commence work on or before a date to be specified in a written Notice to Proceed from the ENGINEER or the OWNER and to fully complete the project within 120 consecutive calendar days thereafter. Work shall be performed within the normal working hours of 6:00 AM to 7:00 PM, Mondays through Saturdays. Bidder must agree also to pay as liquidated damages, the sum of $500.00 for each consecutive calendar day thereafter as hereinafter provided in the GENERAL CONDITIONS.

10. Conditions of Work

Each BIDDER is responsible for reading and being thoroughly familiar with the Contract Documents, inspecting the site and informing himself fully of the conditions relating to the construction of the project and the employment of labor thereon. Failure to do so will not relieve a successful BIDDER of his obligation to furnish all material and labor necessary to carry out the provisions of his CONTRACT. Insofar as possible the CONTRACTOR, in carrying out his work, must employ such methods or means as will not cause any interruption of, or interference with, the work of any other CONTRACTOR.

11. Addenda and Interpretations

Bidders shall notify J & D Civil Engineers of any ambiguity, error, omission or inconsistency which they may discover upon examination of the plans, specifications or site.

No interpretation of the meaning of the Plans, Specifications or other pre-bid documents will be made to any BIDDER orally. Every request for such interpretation should be in writing addressed to: Tyra Penn- Gesek (planner@thompsonct.org) and to be given consideration must be received at least ten (10) days prior to the date fixed for the opening of bids. Any and all such interpretations and any supplemental instructions will be in the form of written ADDENDA to the Specifications which, if issued, will be posted on the town web page: https://www.thompsonct.org/bids not later than four days prior to the date fixed for the opening of bids. Failure of any BIDDER to review any such ADDENDUM or interpretation shall not relieve such BIDDER from any obligations under his bid as submitted. All ADDENDA so issued shall become part of the Contract Documents.

The Contract Documents contain the provisions required for the construction of the project. Information obtained from an officer, agent or employee of the OWNER or any other person shall not affect the risks or obligations assumed by the CONTRACTOR or relieve him from fulfilling any of the conditions of the CONTRACT.

12. Security for Faithful Performance

Simultaneously with his delivery of the executed CONTRACT, the CONTRACTOR shall furnish a surety bond or bonds as security for faithful performance of this CONTRACT and for the payment of all persons performing labor on the project under this CONTRACT and furnishing materials in connection with this CONTRACT, as specified in the GENERAL CONDITIONS included herein. The surety on such bond or bonds shall be a duly authorized surety company as listed on Circular 570 of the U.S Treasury.

13. Power of Attorney

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

14. Laws and Regulations

The BIDDER'S attention is directed to the fact that all applicable federal laws, state laws, municipal ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the project shall apply to the CONTRACT throughout, and they will be deemed to be included in the CONTRACT the same as though herein written out in full

15. Method of Award

The town may award Bid Item #1: Turntable Interpretive Area and Bid Item #2: Parking Lot Area to two separate contractors. The Town may only award a contract for one of the bid items depending on funds available. Award of Contract(s) shall be made, if at all, to the lowest, responsible and qualified bidder(s). The Town of Thompson reserves the right to accept or reject any and all bids, or any part thereof, to waive defects in same, or to accept any proposal it deems to be in the Town of Thompson's best interest. The Town of Thompson reserves the

right to negotiate with any bidder prior to award. The Town of Thompson may make investigations to the extent it deems necessary in order to determine the bidder's qualifications and experience. To that end, the Town of Thompson reserves the right to award this contract, if at all, to a firm other than that with the lowest bid.

16. Obligation of Bidder

At the time of the opening of bids it is presumed that each BIDDER has inspected the site and has read and is thoroughly familiar with the Plans and Contract Documents (including all ADDENDA).

17. Utilities in Area

The CONTRACTOR should acquaint himself with and adhere to the regulations of those utilities which are in the area of this CONTRACT.

The CONTRACTOR shall notify the controlling utility agency at least 24 hours in advance of its intent to excavate in any way or manner, within six feet of any existing utility agency owned pole, anchor guy, underground duct, conduit, pipe, valve or manhole. No excavation shall take place within six feet of an existing pole, anchor guy, underground duct, conduit, or manhole owned by a utility agency without this notification.

Attention is called to the fact of hazards to employees and equipment, and to the equipment of Eversource and its continuity of service. Compliance with the OSHA Laws must be adhered to when working in proximity of their conductors.

18. Soil Conditions

The OWNER does not guarantee the accuracy of any information which it may have obtained as to the kind or condition of the soil or rock that may be encountered in the prosecution of the proposed work, neither does the OWNER represent that the Plans and Specifications drawn are based upon any soil or rock data so obtained. The OWNER does not make any representations as to the soil or rock conditions to be encountered or as to foundation materials.

The CONTRACTOR must, at his own risk, inspect the site of the proposed work and assume all risk as to the nature and behavior of the soil which may be encountered or of soil or water or rock which underlies the work or is adjacent thereto, including any difficulties that may be due to unfavorable conditions that may be encountered in the work, whether apparent upon surface inspection or disclosed in the process of carrying forward the work.

19. Substitution Clause

Wherever in the Plans and Specifications any item of equipment or material is designated by reference to a particular brand manufacturer, or trade name, it is understood that an approved equal product, acceptable to the ENGINEER, may be substituted by the BIDDER or the CONTRACTOR, provided that the procedures outlined in The General Conditions are followed.

20. Sales Tax

The Town of Thompson is exempt from the payment of Sales Tax. Materials or supplies to be consumed in the performance of this contract should not include sales tax.

21. Soil Erosion and Sedimentation Control

The contractor must comply with all requirements of the local Inlands Wetlands Commission, the 2023 CT Guidelines for Soil Erosion and Sediment Control, and any applicable CT DEEP Stormwater permits.

END OF SECTION

BID PROPOSAL

Proposal of _____ (hereinafter called "Bidder"), organized and existing under the laws of the State of _____, doing business as a _____
_____ (corporation/partnership/individual).

In compliance with your Advertisement for Bids, Bidder hereby proposes to perform all work for the construction of **Train Wreck Park**, in strict accordance with the Contract Documents, within the time set forth therein and at the prices stated below.

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

Bidder hereby agrees to commence work under this contract on or before a date to be specified in the Notice to Proceed and to fully complete the project within the time period specified therein. Bidder further agrees to pay as liquidated damages, the sum of $500.00 for each consecutive calendar day thereafter.

Bidder acknowledges receipt of the following addenda:

_____
_____
_____

List below any known defects, errors, omissions or inconsistencies:

_____
_____
_____

The Town of Thompson is exempt from the payment of sales tax. Bids shall include all other applicable taxes and fees.

Bidder agrees to perform all the work described in the Contract Documents and necessary for a complete functional project for the following lump sum prices. Bidders may bid on one or both parts of the project. In case of a discrepancy, the amount shown in words will govern.

1. **Bid Item #1: Turntable Interpretive Area**

Base Bid Amount_____ $_____

Amount in words Amount in figures

Foundation Area Bid Add Alternate

_____ $_____

Amount in words Amount in figures

2. **Bid Item #2: Parking Lot Area**

Base Bid Amount_____ $_____

Amount in words Amount in figures

Eliminate Bituminous Concrete - Deduct Alternate

_____ $_____

Amount in words Amount in figures

Concrete Slab for bike rack and bike repair station - Add Alternate

_____ $_____

Amount in words Amount in figures

Amount per each planted Shade Tree - Add Alternate

_____ $_____

Amount in words per tree Amount in figures

Bidder understands that the Owner reserves the right to reject any or all bids and to waive any informalities in the bidding. Bidder understands that the Town may award the separate bid items to two different bidders.

The Bidder agrees that this bid or bids shall be good and may not be withdrawn for a period of 90 calendar days after the scheduled closing time for receiving bids.

Upon receipt of written notice of the acceptance of this bid or bids, the Bidder will execute the formal Agreement attached within 10 days and deliver the Performance and Payment Bonds as required.

The undersigned offers the following information as evidence of his qualifications to perform the work as bid upon according to all requirements of the Plans and Specifications.

1. Have been in business under present business name ____ years.

2. Ever failed to complete any work? ____ yes ____ no
   Reason_____

3. List similar contracts recently completed by you,
   stating approximate cost for each, and the month and year completed.

   a. Location_____

      Project_____

      Engineer_____Phone No._____

      Completion Date_____

      Amount of Contract_____

   b. Location_____

      Project_____

      Engineer_____Phone No._____

      Completion Date_____

      Amount of Contract_____

   c. Location_____

      Project_____

      Engineer_____Phone No._____

Completion Date_____

Amount of Contract_____

4. Bank Reference_____

E- Mail _____

Telephone_____

5. Bidder complies with Public act 89-368, Section 6, of the Connecticut General Statutes, regarding violations of the Occupational Safety and Health Act. _____ Yes _____ No

The undersigned hereby certifies that he is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed on the work.

Respectfully Submitted:

_____
(Firm Name)

By_____
(Signature)

_____
(Typed Name and Title) (Telephone Number)

_____ Seal
(If bid is by a Corporation)

_____
(Business Address)

(ACKNOWLEDGMENT OF PRINCIPAL, IF A CORPORATION)

STATE OF_____)
SS-
COUNTY OF_____)

ON THIS _____ DAY OF _____, 2024 , BEFORE ME PERSONALLY CAME AND APPEARED_____, TO ME KNOWN, WHO,

BEING BY ME DULY SWORN, DID DEPOSE AND SAY THAT HE RESIDES AT_____ THAT HE IS THE _____ OF _____THE CORPORATION DESCRIBED IN AND WHICH EXECUTED THE FOREGOING INSTRUMENT -- THAT HE KNOWS THE SEAL AND SAID CORPORATION -- THAT ONE OF THE IMPRESSIONS AFFIXED TO SAID INSTRUMENT IS AN IMPRESSION OF SUCH SEAL -- THAT IT WAS SO AFFIXED BY ORDER OF THE DIRECTORS OF SAID CORPORATION, AND THAT HE SIGNED HIS NAME THERETO BY LIKE ORDER.

(SEAL) _____

(NOTARY PUBLIC)

(ACKNOWLEDGMENT OF PRINCIPAL OF A PARTNERSHIP)

STATE OF _____)

SS-

COUNTY OF _____)

ON THIS _____ DAY OF_____, 2024, BEFORE ME PERSONALLY CAME AND APPEARED_____,
TO ME KNOWN AND KNOWN TO ME TO BE ONE OF THE MEMBERS OF THE FIRM OF _____ DESCRIBED IN AND WHO EXECUTED THE FOREGOING INSTRUMENT AND HE ACKNOWLEDGED TO ME THAT HE EXECUTED THE SAME AS AND FOR THE ACT AND DEED OF SAID FIRM.

(SEAL) _____

(NOTARY PUBLIC)

(ACKNOWLEDGMENT OF PRINCIPAL, IF AN INDIVIDUAL)

STATE OF _____)

SS-

COUNTY OF _____)

ON THIS _____ DAY OF _____, 2024, BEFORE ME PERSONALLY CAME AND APPEARED_____
TO ME KNOWN AND KNOWN TO ME TO BE THE PERSON DESCRIBED IN AND WHO EXECUTED THE FOREGOING INSTRUMENT AND ACKNOWLEDGED THAT HE EXECUTED THE SAME.

(SEAL) _____

(NOTARY PUBLIC)

This firm consists of the following member(s):

Full Name	Residence
_____	_____
_____	_____
_____	_____

The officers are:

Full Name		Residence
_____	President	_____
_____	Treasurer	_____
_____	Directors	_____
_____		_____
_____		_____
_____		_____

List of CT licensed subcontractors to be used on this project

Name	License No.
_____	_____
_____	_____
_____	_____

Certification - The information above is true and complete to the best of my knowledge and belief.

_____

Type or Print Name and Title of Signer

_____ _____

Signature Date

AGREEMENT

This AGREEMENT, made this _____,2024 by and between the Town of Thompson, hereinafter called "OWNER" and _____. hereinafter called "CONTRACTOR" a corporation doing business in the State of _____.

WITNESSETH: That for and in consideration of the payments and agreements hereinafter mentioned, to be made and performed by the OWNER, the CONTRACTOR hereby agrees with the OWNER to commence and complete the construction of **Train Wreck Park Bid Item(s):_____,** hereinafter called the Project, for the sum of $_____(amount in words) and all extra work in connection therewith, under the terms as stated in the Contract Documents and at his own proper cost and expense to furnish all the materials, supplies, machinery, equipment, tools, superintendence, labor, insurance and other accessories and services necessary to complete the said Project in accordance with the conditions and prices stated in the Contract Documents.

The term "Contract Documents" means and includes the following:

(A) ADVERTISEMENT FOR BIDS
(B) INFORMATION FOR BIDDERS
(C) BID PROPOSAL
(D) CERTIFICATION OF BIDDERS
(F) AGREEMENT
(G) GENERAL CONDITIONS
(I) SPECIAL CONDITIONS
(J) PAYMENT BOND
(K) PERFORMANCE BOND
(M) NOTICE OF AWARD
(N) NOTICE TO PROCEED
(O) CHANGE ORDER
(P) DRAWINGS prepared by J & D Civil Engineers LLC
(Q) SPECIFICATIONS prepared by J & D Civil Engineers LLC

The OWNER will pay to the CONTRACTOR in the manner and at such times as set forth in the GENERAL CONDITIONS such amounts as required by the Contract Documents.

This AGREEMENT shall be binding upon all parties hereto and their respective heirs, executors, administrators, successors, and assigns.

IN WITNESS WHEREOF, the parties hereto have executed, or caused to be executed by their duly authorized officials, this AGREEMENT in three (3) copies each of which shall be deemed an original on the date first above written:

Town of Thompson

BY:_____

NAME:

TITLE:

Witness

_____

Name:_____

CONTRACTOR:

_____

BY: _____

NAME:_____

ADDRESS:_____

_____

Witness:

_____

Name:_____

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS: That we _____a corporation hereinafter called "Principal"

and _____
(Surety)
of _____, State of _____ hereinafter called the "Surety," are held and firmly bound unto Town of Thompson, hereinafter called "Owner" in the penal sum of _____lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a certain contract with the OWNER, dated the ____th day of _____, 2024 a copy of which is hereto attached and made a part hereof for the construction of: **Train Wreck Park Bid Item(s).** _____

NOW, THEREFORE, if the Principal shall well, truly and faithfully perform its duties, all the undertakings, covenants, terms, conditions, and agreements of said CONTRACT during the original term thereof, and any extensions thereof which may be granted by the OWNER, with or without notice to the Surety, and if he shall satisfy all claims and demands incurred under such CONTRACT, and shall fully indemnify and save harmless the OWNER from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the OWNER all outlay and expense which the OWNER may incur in making good any default, and make at its own cost and expense any and all defects and deficiencies in materials or workmanship which may appear in the work provided for in said CONTRACT within the period of two years from the date of approval and acceptance of all work under said CONTRACT, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said Surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the CONTRACT or to the work to be performed thereunder or the Specifications accompanying the same shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the work or to the specifications.

AND PROVIDED, however, that the Surety and Sureties, for value received, hereby stipulate and agree to fully perform and complete the work mentioned and described in said CONTRACT and Specifications, pursuant to the terms, conditions, and covenants thereof, if for any cause, said Principal fails or neglects to fully perform and complete said work; and the Surety or Sureties further agree to commence said work of completion within twenty (20) days of notice thereof from the OWNER and to complete same within twenty (20) days of the time allowed, said Principal, in said CONTRACT and Specifications for the completion of said work.

AND PROVIDED, THAT THE SAID Surety and Sureties, for value received hereby further stipulate that should the Principal for any reason terminate the CONTRACT or have the CONTRACT terminated, the OWNER shall have the right to complete the contract, under the direction of its own ENGINEER with all rules, regulations, clauses, etc., of the original CONTRACT and Specifications in full effect.

AND FURTHER PROVIDED, that no suit, action or proceeding by reason of any default whatever shall be brought on this bond after twelve (12) months from the date on which the final payment under the CONTRACT falls due.
PROVIDED, FURTHER, that no final settlement between the OWNER and the CONTRACTOR shall abridge the right of any claimant hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in three (3) counterparts, each one of which shall be deemed an original, this the _____day of _____, 2024.

ATTEST:

_____
Principal

_____
(Principal) Secretary

By_____
(SEAL)

_____
(Address-Zip Code)

_____
Witness as to Principal

_____
(Address-Zip Code)

ATTEST:

_____
(Surety) Secretary

(SEAL)

_____
Surety

By_____
Attorney-in-fact

_____
Witness as to Surety

_____
(Address-Zip Code)

_____
Address-Zip Code

NOTE: Date of Bond must not be prior to date of CONTRACT. If CONTRACTOR is Partnership, all partners should execute Bond.

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS: That we, _____ a corporation hereinafter called "Principal" and

_____
Surety
of _____, State of_____ hereinafter called the "Surety", are held and firmly bound unto Town of Thompson, hereinafter called "Owner", in the penal sum of _____in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that Whereas, the Principal entered into a certain contract with the OWNER, dated the ___th day of _____, 2024 a copy of which is hereto attached and made a part hereof for the construction of : **Train Wreck Park Bid Item(s)** _____**.**

NOW, THEREFORE, if the Principal shall promptly make payment to all persons, firms, subcontractors, and corporations furnishing materials for or performing labor in the prosecution of the work provided for in such contract, and any authorized extension or modification thereof, including all amounts due for materials, lubricants, oil, gasoline, coal and coke, repairs on machinery, equipment and tools, consumed or used in connection with the construction of such work, and telephone, electric, water or other utility service, or rental of equipment directly applicable to the CONTRACT, and all insurance premiums on said work, and for all labor, performed in such work whether by subcontractor or otherwise, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said Surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the CONTRACT or to the work to be performed thereunder or the Specifications accompanying the same shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the CONTRACT or to the work or to the Specifications.

PROVIDED, FURTHER, that no final settlement between the OWNER and the CONTRACTOR shall abridge the right of any claimant hereunder, whose claim may be unsatisfied.

PROVIDED, FURTHER, that the above named Principal, and Surety hereby jointly and severally agree with the OWNER that every claimant who has not been paid in full may sue on this bond for the use of such claimant in the name of the OWNER, prosecute the suit to final judgment for such sum or sums as may be justly due claimant, and have execution thereon, provided, however, that the OWNER shall not be liable for payment of any costs or expenses of any such suit.

PROVIDED, FURTHER, that no suit or action shall be commenced hereunder by any claimant as follows:

a. After the expiration of two (2) years following the date on which Principal ceased work on said CONTRACT.

b. Other than in a state court of competent jurisdiction in and for the county or other political subdivision of the state in which the project, or any part thereof, is situated, or in the United States District Court for the district in which the project, or any part thereof, is situated and not elsewhere.

PROVIDED, FURTHER, that the amount of this bond shall be reduced by and to the extent of any payment or payments made in good faith hereunder, inclusive of the payment by Surety of mechanics' liens which may be filed or recorded against such improvement, whether or not claim for the amount of such lien be presented under and against this bond.

IN WITNESS WHEREOF, this instrument is executed in three (3) counterparts, each one of which shall be deemed an original, this the _____ day of _____, 2024.

ATTEST:

_____
Principal

_____
(Principal) Secretary

By_____(s)

(SEAL)

_____
(Address-Zip Code)

_____
Witness as to Principal

_____
(Address-Zip Code)

ATTEST:

_____
(Surety) Secretary

_____
Surety

(SEAL)

By_____
Attorney-in-fact

_____
(Address-Zip Code

_____
Witness as to Surety

_____
(Address-Zip Code)

NOTE: Date of Bond must not be prior to date of CONTRACT. If Contractor is Partnership, all partners should execute Bond.

GENERAL CONDITIONS

SUBSECTION	TITLE
1.	Definitions
2.	Notice
3.	Intent
4.	Codes, Regulations and Issue Date of Standard Specifications
5.	Drawings and Specifications
6.	Conflicting Conditions
7.	Samples
8.	Quality of Equipment and Materials
9.	Rejected Work and Materials
10.	Separate Contracts
11.	Rights of Various Interests
12.	Notice to Proceed
13.	Time for Completion and Liquidated Damages
14.	The Contractor's Duties and Rights
15.	The Engineer's Authority
16.	The Owner's Duties and Rights
17.	Assignment
18.	Oral Agreements
19.	Insurance and Indemnification
20.	Contract Security
21.	Extra Work
22.	Extension of Contract Time
23.	Progress Payments
24.	Acceptance and Final Payment
25.	Correction of Faulty Work After Final Payment
26.	Substitutions and Deletions
27.	Provisions Required by Law Deemed Inserted
28.	Protection of Lives and Health
29.	Obstructions Encountered
30.	Inspection and Testing
31.	Patents
32.	Subcontractors
33.	Manufacturer's Experience
34.	Contract Scheduling
35.	Equipment and Material Approval
36.	Miscellaneous Provisions

GENERAL CONDITIONS

1. DEFINITIONS

.1 The CONTRACT comprises the following documents, including all additions, deletions and modifications incorporated therein before the execution of the CONTRACT:

a. Legal and Procedural Documents

1) Advertisement for Bids
2) Information for Bidders
3) Bid Proposal and Bid Bond
4) Contract Agreement
5) Performance Bond
6) Payment Bond

b. General Conditions
c. Special Conditions
d. Technical Specifications, Drawings and Addenda

.2 ENGINEER: J & D Civil Engineers, LLC 401 Ravenelle Road, N Grosvenordale, CT or any duly authorized representatives of the above.

.3 STATE: The State of Connecticut

.4 OWNER, AWARDING AUTHORITY OR MUNICIPALITY: the party of the first part designated in the CONTRACT or any board, officer or agent duly authorized to act for the said party of the first part in the matter covered by the CONTRACT. The OWNER is the Town of Thompson

.5 CONTRACTOR: the General CONTRACTOR, and is the CONTRACTOR named in the Contract Documents. The CONTRACTOR is the person, firm, or corporation with whom the OWNER has executed the Agreement.

.6 SUBCONTRACTOR: any person, firm or corporation with a direct CONTRACT with the CONTRACTOR who acts for or in behalf of the CONTRACTOR in executing any part of the CONTRACT, but does not include one who merely furnishes material.

.7 WORK on (at) the project: Work to be performed at the location of the project, including the transportation of materials and supplies to or from the location of the project by employees of the CONTRACTOR and any SUBCONTRACTOR.

.8 DIRECTED, REQUIRED, APPROVED, ACCEPTABLE: Whenever they refer to the work or its performance, "Directed", "Required", "Permitted", "Ordered", "Designated", "Prescribed" and words

of like import shall imply the direction, requirement, permission, order, designation or prescription of the ENGINEER, and "Approved", "Acceptable", "Satisfactory", "In the Judgement of" and words of like import shall mean approval by, or acceptable to, or satisfactory to or in the judgement of the ENGINEER.

.9 PROPOSAL: The offer of a BIDDER to perform the work described by the Contract Documents when made out and submitted on the prescribed form properly signed and guaranteed.

.10 PROPOSAL GUARANTEE: The bid deposit accompanying the proposal submitted by the BIDDER, as a guaranty that the BIDDER will enter into a CONTRACT with the OWNER for the construction of the work if the CONTRACT is awarded to him.

.11 CONTRACT: The AGREEMENT covering the performance of the work described in the Contract Documents and Plans including all supplemental agreements thereto and all general and special provisions pertaining to the work or materials therefor.

.12 PERFORMANCE AND PAYMENT BONDS: The approved forms of security furnished by the CONTRACTOR and his Surety as a guaranty of good faith on the part of the CONTRACTOR to execute the work in accordance with the terms of the CONTRACT.

.13 SURETY: The person, firm or corporation who executes the CONTRACTOR's Performance and Payment Bonds.

.14 SPECIFICATIONS: The Legal and Procedural Documents, General Conditions, Special Conditions and Technical Specifications with all Addenda thereto.

.15 PROVIDE: Furnish and install.

.16 SHOP DRAWINGS: Fabrication and erection drawings and instructions.

.17 ACT OF GOD: An earthquake, flood, cyclone, or other cataclysmic phenomenon of nature. Rain, wind, flood, or other natural phenomenon of normal intensity for the locality shall not be construed as an Act of God and no reparation shall be made to the CONTRACTOR for damages to the work resulting therefrom.

.18 EXTRA WORK: Work other than that required either expressed or implied by the CONTRACT in its present form.

.19 SITE: The area upon or in which the CONTRACTOR's operations are carried on and such other areas adjacent thereto as may be designated as such by the ENGINEER.

.20 CHANGE ORDER: A written order issued by the ENGINEER to the CONTRACTOR directing certain changes, additions, or reductions in the work or in the materials or methods to be used.

.21 ADDENDA: Written or graphic instruments issued prior to the execution of the Agreement which modify or interpret the Contract Documents, Drawings and Specifications, by additions, deletions, clarifications or corrections.

.22 BID: The offer or proposal of the BIDDER submitted on the prescribed form setting forth the prices for the work to be performed.

.23 BIDDER: Any person, firm or corporation submitting a bid for the work.

.24 CONTRACT DOCUMENTS: The CONTRACT, including Advertisement for Bids, Information for Bidders, Bid, Bid Bond, Agreement, Payment Bond, Performance Bond, Notice of Award, Notice to Proceed, Change Order, Drawings, Specifications, Addenda, General Conditions, Special Conditions, and Supplementary General Conditions.

.25 CONTRACT PRICE: The total monies payable to the CONTRACTOR under the terms and conditions of the Contract Documents.

.26 CONTRACT TIME: The time stated in the Contract Documents for the completion of the work.

.27 DRAWINGS: The part of the Contract Documents which shows the characteristics and scope of the work to be performed and which have been prepared or approved by the ENGINEER.

.28 FIELD ORDER: A written order effecting a change in the work not involving an adjustment in the Contract Price or an extension of the Contract Time, issued by the ENGINEER to the CONTRACTOR during construction.

.29 NOTICE OF AWARD: The written notice of the acceptance of the bid from the OWNER to the successful BIDDER.

.30 NOTICE TO PROCEED: Written communication issued by the OWNER to the CONTRACTOR authorizing him to proceed with the work and establishing the date of commencement of the work.

.31 OWNER: A public or quasi-public body or authority, corporation, association, partnership, or individual for whom the work is to be performed.

.32 PROJECT: The undertaking to be performed as provided in the Contract Documents.

.33 RESIDENT PROJECT REPRESENTATIVE: The authorized representative of the OWNER who is assigned to the project site or to any part thereof.

.34 SHOP DRAWINGS: All drawings, diagrams, illustrations, brochures, schedules and other data which are prepared by the CONTRACTOR, a SUBCONTRACTOR, manufacturer, supplier or distributor which illustrate how specific portions of the work shall be fabricated or installed.

.35 SUBSTANTIAL COMPLETION: That date as certified by the ENGINEER when the construction of the project or a specified part thereof is sufficiently completed, in accordance with the Contract Documents, so that the project or specified part can be utilized for the purposes for which it is intended.

.36 SUPPLEMENTAL GENERAL CONDITIONS: Modifications to the General Conditions required by a Federal Agency for participation in the project and approved by the agency in writing

prior to inclusion in the Contract Documents, or such requirements that may be imposed by applicable state laws.

.37 SUPPLIER: Any person or organization who supplies materials or equipment for the work, including that fabricated to a special design, but who does not perform labor at the site.

.38 WORK: All labor necessary to produce the construction required by the Contract Documents, and all materials and equipment incorporated or to be incorporated in the project.

2. NOTICE

Written notice shall be considered as served when delivered in person or sent by certified mail to the individual, firm or corporation or to the last business address known to him who serves the Notice. It shall be the duty of each party to advise the other parties to the CONTRACT as to any change in his business address until completion of the CONTRACT.

3. INTENT

.1 The intent of the Contract Documents is that the CONTRACTOR shall provide and pay for all materials, labor, tools, equipment, water, light, power, transportation, superintendence, temporary construction of every nature, and all other services and facilities of every nature whatsoever necessary to execute, complete, and deliver the work within the specified time.

.2 Any work performed after regular working hours, on Sundays or Legal Holidays, shall be performed without additional expense to the OWNER.

4. CODES, REGULATIONS AND ISSUE DATE OF STANDARD SPECIFICATIONS

.1 Where standard specifications, codes, regulations and similar publications of governmental agencies, technical societies, manufacturer's associations and regulatory groups or bureaus are referred to in these Specifications, the applicable portion thereof shall be of the same effect as if fully printed herein, and the work done in full accordance therewith. The edition current as of the date of issue of this Specification shall be used except where publications date is specifically stated.

5. DRAWINGS AND SPECIFICATIONS

.1 Except as provided for otherwise, all required copies of Drawings and Specifications necessary for the execution of the work shall be furnished to the CONTRACTOR without charge. One complete set of all Drawings and Specifications shall be maintained at the job site and shall be available to the ENGINEER at all times.

.2 All Drawings and Specifications and other data prepared by the ENGINEER shall remain the property of the ENGINEER, and they shall not be re-used on other work.

.3 Figured dimensions on the Plans will be used in preference to scaling the Drawings. Where the work of the CONTRACTOR is affected by finish dimensions, these shall be determined by the CONTRACTOR at the site, and he shall assume the responsibility therefor.

.4 Any discrepancies found between the Drawings and Specifications and site conditions or any errors or omissions in the Drawings or Specifications shall be immediately reported to the ENGINEER, who shall promptly correct such error or omission in writing. Any work done by the CONTRACTOR after his discovery of such discrepancies, errors or omissions without notifying the ENGINEER shall be done at the CONTRACTOR's risk.

.5 Further instructions may be issued by the ENGINEER during the progress of the work by means of Drawings or oral or written instruction to make more clear or specific the Drawings and Specifications or as may be necessary to explain or illustrate changes in the work to be done. The CONTRACTOR shall carry out the work in accordance with the additional Drawings and instructions.

6. CONFLICTING CONDITIONS

.1 Anything shown on the Plans and not mentioned in the Specifications, or mentioned in the Specifications and not shown on the Plans, shall have the same effect as if shown or mentioned respectively on both. In case of any conflict or inconsistency between the Plans and Specifications, the Specifications shall govern. On the Plans, the dimensions shown shall govern in case of any discrepancy between a scaled distance and the figures shown. Neither party shall take advantage of any obvious error or omission in the Contract Documents. Any apparent discrepancies shall be submitted to the ENGINEER for determination. The decision of the ENGINEER thereupon shall be conclusive.

.2 The fact that specific mention of a fixture, or of any part of the work is omitted in the Specifications, whether intentionally or otherwise, when the same is clearly shown or indicated on the Plans, or is usually and customarily required to complete fully such work as is specified herein, will not entitle the CONTRACTOR to consider action in the manner of any claim for extra compensation, but the said fixtures or work, or both, must be installed or done the same as if called for by both the Plans and the Specifications.

7. SAMPLES

All samples called for in the Specifications or required by the ENGINEER shall be furnished by the CONTRACTOR at his expense and shall be submitted to the ENGINEER for his approval. Samples shall be furnished so as not to delay fabrication, allowing the ENGINEER reasonable time for the consideration of the samples submitted. CONTRACTOR shall furnish such samples of materials, and workmanship shall be in accordance with approved samples.

8. QUALITY OF EQUIPMENT AND MATERIALS

.1 Everything furnished and provided shall be new, and all materials and equipment shall be of the quality specified. All unspecified materials and equipment shall be equal in grade and quality to specified materials. The CONTRACTOR shall furnish satisfactory evidence as to the kind and quality of all materials.

.2 In order to establish standards of quality, the ENGINEER has, in the detailed Specifications, referred to certain products by name and catalog number. This procedure is not to be construed as eliminating from competition other products of equal or better quality by other manufacturers where fully suitable in design.

.3 The CONTRACTOR shall furnish one complete list of proposed desired substitutions prior to signing of the CONTRACT, together with such engineering, catalog data and sketches the ENGINEER may require.

.4 The CONTRACTOR shall abide by the ENGINEER's judgement when proposed substitute materials or items of equipment are judged to be unacceptable and shall furnish the specified materials or items of equipment in such cases. All proposals for substitutions shall be submitted in writing by the General CONTRACTOR and not by individual trades or material suppliers. The ENGINEER will approve or disapprove proposed substitutions in writing within a reasonable time. No substitute materials shall be used unless approved in writing.

9. REJECTED WORK AND MATERIALS

.1 All materials which do not conform to the requirements of the Contract Documents, are not equal to samples approved by the ENGINEER, or are in any way unsatisfactory or unsuitable for the purpose for which they are intended, shall be rejected. Any defective work, whether the result of poor workmanship, use of defective materials, damage through carelessness or any other cause, shall be removed within ten (10) days after written notice is given by the ENGINEER, and the work shall be re-executed by the CONTRACTOR. The fact that such defective work may not have been reported on previous inspections shall not constitute an acceptance of any part of it.

.2 Should the CONTRACTOR fail to remove rejected work or materials within ten (10) days after written notice to do so, the OWNER may remove them and may store the materials.

.3 The removal of rejected work and materials and the re-execution of acceptable work by the CONTRACTOR shall be at the expense of the CONTRACTOR, and he shall pay the cost of replacing the work that other contractors destroyed or damaged by the removal of the rejected work or materials and the subsequent replacement with acceptable work.

.4 Removal of rejected work or materials and storage of materials by the OWNER shall be paid for by the CONTRACTOR within thirty (30) days after the written notice to pay is given by the OWNER. If the CONTRACTOR does not pay the expenses of such removal and after ten (10) days written notice being given by the OWNER of his intent to sell the materials, the OWNER may sell the material at auction or at private sale and shall pay to the CONTRACTOR the net proceeds therefrom after deducting all the costs and expenses that should have been borne by the CONTRACTOR.

10. SEPARATE CONTRACTS

The owner may let other contracts in connection with the work of the contractor. The contractor shall cooperate with other contractors with regard to storage of materials and execution of their work. It shall be the contractor's responsibility to inspect all work by other contractors affecting his work and to report to the engineer any irregularities which will not permit him to complete his work in a satisfactory manner. His failure to notify the engineer of such irregularities shall indicate the work of other contractors has been satisfactorily completed to receive his work. The contractor shall not be responsible for defects of which he could not have known which develop in the work of others after the work is completed. It shall be the responsibility of the contractor to measure the completed work in place and report to the

engineer immediately any difference between completed work by others and the drawings.

11. RIGHTS OF VARIOUS INTERESTS

Wherever work being done by the OWNER's 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 in general harmony.

12. NOTICE TO PROCEED

Following the execution of the CONTRACT by the OWNER, Written Notice to Proceed with the work shall be given to the CONTRACTOR. Computation of contract time shall commence on a date to be specified in the Notice to Proceed and completed by the time specified therein.

13. TIME FOR COMPLETION AND LIQUIDATED DAMAGES

.1 It is hereby understood and mutually agreed, by and between the CONTRACTOR and the OWNER, that the date of beginning and the time for completion as specified in the Information for Bidders of the work to be done hereunder are essential conditions of this CONTRACT; and it is further mutually understood and agreed that the work embraced in this CONTRACT shall be commenced on a date to be specified in the "Notice to Proceed."

.2 The CONTRACTOR agrees that said work shall be prosecuted regularly, diligently, and uninterruptedly at such rate of progress as will ensure full completion thereof within the time specified. It is expressly understood and agreed, by and between the CONTRACTOR and the OWNER, that the time for the completion of the work described herein is a reasonable time for the completion of same, taking into consideration the average climatic range and usual industrial conditions prevailing in this locality.

.3 If the said CONTRACTOR shall neglect, fail or refuse to complete the work within the time herein specified, or any proper extensions thereof granted by the OWNER, then the CONTRACTOR does hereby agree, as a part consideration for the awarding of this CONTRACT, to pay to the OWNER the amount specified in the Information for Bidders, not as a penalty but as liquidated damages for such breach of CONTRACT as hereinafter set forth, for each and every calendar day that the CONTRACTOR shall be in default after the time stipulated in the CONTRACT for completion of the work.

.4 The said amount is fixed and agreed upon by and between the CONTRACTOR and the OWNER because of the impracticability and extreme difficulty of fixing and ascertaining the actual damages the OWNER would in such event sustain, and said amount is agreed to be the amount of damages which the OWNER would sustain and said amount shall be retained from time to time by the OWNER from current periodic estimates.

.5 It is further agreed that time is of the essence of each and every portion of this CONTRACT and of the Specifications wherein a definite and certain length of time is fixed for the performance of any act whatsoever; and where under the CONTRACT an additional time is allowed for the completion of any work, the new time limit fixed by such extension shall be of the essence of this CONTRACT. Provided, that the CONTRACTOR shall not be charged with liquidated damages

or any excess cost when the OWNER determines that the CONTRACTOR is without fault and the CONTRACTOR's reasons for the time extension are acceptable to the OWNER; provided, further, that the CONTRACTOR shall not be charged with liquidated damages or any excess cost when the delay in completion of the work is due;

a. To any preference, priority or allocation order duly issued by the Government.

b. To unforeseeable cause beyond the control and without the fault or negligence of the CONTRACTOR, including, but not limited to, acts of God, or of the public enemy, acts of the OWNER, acts of another contractor in the performance of a contract with the OWNER, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes and severe weather.

.6 The CONTRACTOR shall, within ten (10) days from the beginning of any such delay, unless the OWNER shall grant a further period of time prior to the date of final settlement of the CONTRACT, notify the OWNER, in writing, of the causes of the delay, who shall ascertain the facts and extent of the delay and notify the CONTRACTOR within a reasonable time of its decision in the matter.

14. THE CONTRACTOR'S DUTIES AND RIGHTS

.1 The CONTRACTOR shall begin and shall prosecute the work regularly and uninterruptedly after Notice to Proceed has been given (unless otherwise directed in writing by the OWNER) with such force as to secure the completion of the work, in an acceptable manner, within the time stated in the Proposal.

.2 The CONTRACTOR shall submit at such times as may reasonably be requested by the ENGINEER, schedules which shall show the order in which the CONTRACTOR proposes to carry on the work, with dates at which time the CONTRACTOR will start the several parts of the work, and estimated dates of completion of the several parts.

.3 On Lump Sum Contracts the CONTRACTOR shall within ten (10) days of receipt of Notice to Proceed, submit a complete breakdown of the CONTRACT amount showing the value assigned to each part of the work, including an allowance for profit and overhead. Upon approval of the breakdown of the contract amount by the ENGINEER, it shall be used as the basis for all Requests for Payment.

.4 The CONTRACTOR shall utilize the services of specialty SUBCONTRACTORS on those parts of the work which under normal contracting practices are performed by specialty SUBCONTRACTORS; provided that, if the ENGINEER shall determine that the specialty work in question has been customarily performed by the CONTRACTOR's own organization and that such organization is presently competent to perform such work, the CONTRACTOR shall be permitted to do so; provided further that, if the ENGINEER shall determine that the performance of any specialty work by specialty SUBCONTRACTORS will result in increased material costs or inordinate delays, the requirements of this paragraph shall not apply. At the time specified by the Contract Documents or when requested by the ENGINEER, the CONTRACTOR shall submit in writing to the OWNER for approval of the ENGINEER the names of the SUBCONTRACTORS proposed for the work. SUBCONTRACTORS may not be changed except at the request or with the approval of the ENGINEER. The CONTRACTOR is responsible to the OWNER for the acts and omissions of his

SUBCONTRACTORS, and of their direct and indirect employees to the same extent as he is responsible for the acts and omissions of his employees. The Contract Documents shall not be construed as creating any contractual relation between any SUBCONTRACTOR and the OWNER. The CONTRACTOR shall bind every SUBCONTRACTOR by the terms of the Contract Documents. For convenience of reference and to facilitate the letting of Contracts and Subcontracts, the Specifications are separated into titled sections. Such separations shall not, however, operate to make the ENGINEER an arbiter to establish limits to the CONTRACTS between CONTRACTOR and SUBCONTRACTORS. The CONTRACTOR shall cause appropriate provisions to be inserted in all SUBCONTRACTS relative to the work to bind SUBCONTRACTORS to the CONTRACTOR by the terms of the Contract Documents insofar as applicable to the work of SUBCONTRACTORS and to give the CONTRACTOR the same power as regards terminating any SUBCONTRACT that the OWNER may exercise over the CONTRACTOR under any provision of the Contract Documents.

.5 The CONTRACTOR shall develop and make all detail surveys necessary for construction, including slope stakes, stakes for pile locations and other working points, lines and elevations. The ENGINEER has established bench marks for the use of the CONTRACTOR in laying out the work. The CONTRACTOR shall be responsible for the accuracy of all lines and levels and of the work as built in accordance therewith. The CONTRACTOR shall have the responsibility to carefully preserve bench marks, reference points and stakes established by the ENGINEER and in the case of destruction thereof by the CONTRACTOR or resulting from his negligence, the CONTRACTOR shall be charged with the expense and damage resulting therefrom and shall be responsible for any mistakes that may be caused by the unnecessary loss or disturbance of such bench marks, reference points and stakes.

.6 The CONTRACTOR shall employ at his own expense a competent Land Surveyor, registered in the State of Connecticut as a Land Surveyor or as provided by State Statute, and necessary assistants who shall stake out all structures and other parts of the work, using as reference the base lines and bench marks established by the ENGINEER. The CONTRACTOR shall be responsible for the accuracy of all levels and of the work as built in accordance therewith.

.7 The CONTRACTOR shall secure and pay for all permits and licenses necessary for the prosecution of the work. The Contractor shall verify with local authorities any additional permits that may be required for the prosecution of the work.

.8 The CONTRACTOR shall give all notices and comply with all federal, state and local laws, ordinances and regulations in any manner affecting the conduct of the work, and all such orders and decrees as exist, or may be enacted by bodies or tribunals having any jurisdiction or authority over the work, and shall indemnify and save harmless the OWNER against any claim or liability arising from or based on, the violation of any such law, ordinance, regulation, order or decree, whether by himself or his employees.

.9 The CONTRACTOR shall pay all royalties and license fees for any design, device, material or process covered by letters, patent or copyright by legal agreement with the owner of the patent or a duly authorized licensee of such owner, and shall save harmless the OWNER from any and all loss or expense on account thereof, including its use by the OWNER.

.10 The CONTRACTOR shall furnish, with no liability to the OWNER, additional land and access thereto not shown on the Drawings that may be required for temporary construction facilities

or for storage of materials. The CONTRACTOR shall confine his apparatus and storage of materials and operation of his workmen to those areas described on the Drawings and in the Specifications and such additional areas which he may provide as approved by the ENGINEER.

.11 The CONTRACTOR shall not enter upon private property for any purpose without obtaining permission, and he shall be responsible for the preservation of all public property, trees, monuments, etc., along and adjacent to the street and/or right-of-way, and shall use every precaution necessary to prevent damage or injury thereto. He shall use suitable precautions to prevent damage to pipes, conduits, and other underground structures, and shall protect carefully from disturbance or damage all monuments and property marks until an authorized agent has witnessed or otherwise referenced their location and shall not remove them until directed.

.12 The CONTRACTOR shall provide adequate signs, barricades, red lights and watchmen and take all necessary precautions for the protection of the work and the safety of the public. All barricades and obstructions shall be protected at night by red signal lights which shall be of substantial construction and shall be painted white or whitewashed to increase their visibility at night. Suitable warning signs shall be so placed and illuminated at night as to show in advance where construction, barricades, or detours exist.

.13 The CONTRACTOR shall conduct his work at all times to insure the least possible obstruction to traffic and inconvenience to the general public and the residents in the vicinity of the work, and to insure the protection of persons and property in a manner satisfactory to the ENGINEER. No road or street shall be closed to the public except with the permission of the ENGINEER and proper governmental authority. Fire hydrants on or adjacent to the work shall be kept accessible to fire fighting equipment at all times. Temporary provisions shall be made by the CONTRACTOR to insure the use of sidewalks and the proper functioning of all gutters, sewer inlets, drainage ditches, and irrigation ditches, which shall not be obstructed except as approved by the ENGINEER.

.14 The CONTRACTOR shall secure written permission from the proper authority before executing new construction when such new construction crosses highways, railroads, streets or utilities under the jurisdiction of State, County, City or other public agency, public utility or private entity. A copy of this written permission must be filed with the ENGINEER or OWNER before any work is done. The CONTRACTOR will be required to furnish a release from the proper authority before final acceptance of the work.

.15 The CONTRACTOR shall provide and maintain such sanitary accommodations for the use of his employees and those of his SUBCONTRACTORS as may be necessary to comply with the requirements and regulations of the local and State Departments of Health and as directed by the ENGINEER.

.16 The CONTRACTOR shall maintain on the work a qualified superintendent who is acceptable to the ENGINEER, and who shall give efficient supervision to the work until its completion. The superintendent shall have full authority to act in behalf of the CONTRACTOR, and all directions given to the superintendent shall be considered given to the CONTRACTOR. In general, the ENGINEER's instructions shall be confirmed in writing and always upon written request from the CONTRACTOR.

.17 The CONTRACTOR shall be responsible for the conduct and discipline of his employees

and/or any SUBCONTRACTOR or persons employed by SUBCONTRACTORS. All workmen must have sufficient knowledge, skill, and experience to perform properly the work assigned to them. Any foreman or workman employed by the CONTRACTOR or SUBCONTRACTOR who, in the opinion of the ENGINEER, does not perform his work in a skillful manner or appears to be incompetent or to act in a disorderly or intemperate manner shall, at the written request of the ENGINEER, be discharged immediately and shall not be employed again in any portion of the work without the approval of the ENGINEER.

Certified or licensed personnel may be required for certain types of work. The contractor shall verify this requirement with local authorities.

.18 The CONTRACTOR shall store his materials to insure the preservation of their quality and fitness for the work. When considered necessary, they shall be placed on wooden platforms or other hard, clean surfaces, and not on the ground, and/or they shall be placed under cover. Stored materials shall be located so as to facilitate prompt inspection. Private property shall not be used for storage purposes without the written permission of the owner or lessee.

.19 The CONTRACTOR shall perform any work and shall furnish and install any materials and equipment necessary during an emergency endangering life or property. In all cases he shall notify the ENGINEER of the emergency as soon as practicable, but he shall not wait for instructions before proceeding to properly protect both life and property.

.20 The CONTRACTOR shall do all necessary cutting and patching of the work that may be required to properly receive the work of the various trades or as required by the Drawings and Specifications to complete the structure. He shall restore all such cut or patched work as directed by the ENGINEER. Cutting of existing structure that shall endanger the work, adjacent property, workmen or the public shall not be done unless approved by the ENGINEER and under his direction.

.21 The CONTRACTOR shall keep the OWNER's property free at all times from accumulations of waste materials or rubbish and shall remove from the OWNER's property, and from all public and private property, all temporary structures, rubbish, and waste materials resulting from his operation or caused by his employees, and shall remove all surplus materials resulting from his operation or caused by his employees, leaving the site smooth, clean and true to line and grade.

.22 The CONTRACTOR shall pay for all transportation and utility services not later than the twentieth day of the calendar month following that in which such services are rendered; pay for all materials, tools and other expendable equipment to the extent of 90 percent of the cost thereof, not later than the twentieth day of the calendar month following that in which such materials, tools and equipment are delivered at the site of the project, and the balance of the cost thereof not later than the thirtieth day following the completion of that part of the work in or on which such materials, tools and equipment are incorporated or used; and pay to the each of his SUBCONTRACTORS not later than the fifth day following each payment to the CONTRACTOR, the respective amount allowed to the CONTRACTOR on account of the work performed by his SUBCONTRACTORS, to the extent of each SUBCONTRACTOR'S interest therein.

.23 The CONTRACTOR shall at the termination of this CONTRACT, before acceptance of the work by the ENGINEER, remove all of his equipment, tools and supplies from the property of the OWNER. Should the CONTRACTOR fail to remove such equipment, tools and supplies, the

OWNER shall have the right to remove them, and the CONTRACTOR shall pay all cost incurred by the OWNER in removing them.

.24 The CONTRACTOR shall deliver to the OWNER a complete release of all liens arising out of this CONTRACT before the retained percentage or before the final Request for Payment is paid. If any lien remains unsatisfied after all payments are made, the CONTRACTOR shall refund to the OWNER such amounts as the OWNER may have been compelled to pay in discharging such liens including all costs and reasonable attorney's fee.

.25 The CONTRACTOR shall warrant all material and equipment furnished and work performed by him for a period of one year from the date of written acceptance of the work, and furnish all guarantees applicable to definite parts of the work as stipulated in the sections of the Technical Provisions.

.26 The CONTRACTOR shall have the right to suspend work or terminate the CONTRACT upon ten (10) days written notice to the OWNER and the ENGINEER, for any of the following reasons:

a. If an order of any court, or other public authority caused the work to be stopped or suspended for a period of ninety (90) days through no act or fault of the CONTRACTOR or his employees.

b. If the ENGINEER should fail to act upon any Request for Payment within fifteen (15) days after it is presented in accordance with the General Conditions of the CONTRACT.

c. If the OWNER should fail to act upon any Request for Payment within thirty (30) days after its approval by the ENGINEER.

.27 Upon suspension of the work or termination of the CONTRACT by the CONTRACTOR, in accordance with the foregoing, the CONTRACTOR shall recover payment from the OWNER for the work performed plus loss on plant and materials, plus established profit and damages, as approved by the ENGINEER.

.28 The CONTRACTOR shall maintain at the site a set of Drawings on which shall be accurately shown the actual installation of all work under each section, indicating thereon any variations from the Contract Drawings, including changes in sizes, locations and dimensions. For this purpose the ENGINEER will furnish one set of paper prints. At the conclusion of the work, the CONTRACTOR shall deliver the prints showing the entire work as actually installed to the ENGINEER for approval.

15. THE ENGINEER'S AUTHORITY

.1 The ENGINEER shall act as the OWNER's representative during the construction period. He shall decide questions which may arise as to quality and acceptability of materials furnished and work performed. He shall interpret the intent of the Contract Documents in a fair and unbiased manner. The ENGINEER will make visits to the site and determine if the work is proceeding in accordance with the Contract Documents.

.2 The CONTRACTOR will be held strictly to the intent of the Contract Documents in regard to the quality of materials, workmanship and execution of the work. Inspections may be made at the factory or fabrication plant of the source of material supply.

.3 The ENGINEER will not be responsible for the construction means, controls, techniques, sequences, procedures, or construction safety.

.4 The ENGINEER shall promptly make decisions relative to interpretation of the Contract Documents.

.5 The ENGINEER and his representatives will at all times have access to the work site. In addition, authorized representatives and agents of any participating Federal or State agency shall be permitted to inspect all work, materials, payrolls, records of personnel, invoices of materials, and other relevant data and records. The CONTRACTOR will provide proper facilities for such access and observation of the work and also for any inspection, or testing thereof.

.6 If any work is covered contrary to the instructions of the ENGINEER, it must, if requested by the ENGINEER, be uncovered for his observation and replaced at the CONTRACTOR's expense.

.7 If the ENGINEER considers it necessary or advisable that covered work be inspected or tested by others, the CONTRACTOR, at the ENGINEER's request, will uncover, expose or otherwise make available for observation, inspection or testing as the ENGINEER may require, that portion of the work in question, furnishing all necessary labor, materials, tools, and equipment. If it is found that such work is defective, the CONTRACTOR will bear all the expenses of such uncovering, exposure, observation, inspection and testing and of satisfactory reconstruction. If, however, such work is not found to be defective, the CONTRACTOR will be allowed an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to such uncovering, exposure, observation, inspection, testing and reconstruction, and an appropriate Change Order shall be issued.

.8 The ENGINEER shall have the authority to direct the CONTRACTOR not to correct work that has been damaged or that was not performed in accordance with the Contract Documents. An equitable deduction from the Contract Amount shall be made to compensate the OWNER for the uncorrected work.

16. THE OWNER's DUTIES AND RIGHTS

.1 The OWNER will provide the lands shown on the Drawings upon which the work under the CONTRACT is to be performed and to be used for rights-of-way for access. Any delay in furnishing these lands by the OWNER shall be deemed proper cause for adjustment in the Contract Amount and in time of completion.

.2 The OWNER shall have the right to suspend the work or any portion thereof at any time provided that he gives the CONTRACTOR five (5) days written notice of suspension which shall set forth the date on which work is to be resumed. The CONTRACTOR shall resume the work upon written notice from the OWNER and within ten (10) days after the date set forth in the notice of suspension. If the OWNER does not give written notice to resume work within ten (10) days of the date fixed in the notice of suspension, the CONTRACTOR may abandon that portion of the work so

suspended and shall be entitled to payment for all work done on the portions so abandoned, plus 15 percent of the value of the abandoned work to compensate for overhead, plant expense, and anticipated profit.

.3 The OWNER, acting upon the recommendation of its ENGINEER, shall have the authority to suspend the work, wholly or in part, for such period or periods, as may be deemed necessary, due to unsuitable weather, or such other conditions as are considered unfavorable for prosecution of the work, or failure on the part of the CONTRACTOR to carry out the provisions of the CONTRACT or to supply materials meeting the requirements of the Specifications. The CONTRACTOR shall not suspend operations due to unsuitable weather without the OWNER's permission.

.4 In the event of temporary suspension of work or during inclement weather or whenever the OWNER, acting upon the recommendation of the ENGINEER, shall direct, the CONTRACTOR will and will cause his SUBCONTRACTORS to protect carefully his and their work and materials against damage or injury from the weather. If, in the opinion of the OWNER, acting upon the recommendation of the ENGINEER, any work or materials shall have been damaged or injured from the weather, by reason of failure on the part of the CONTRACTOR or any of his SUBCONTRACTORS so to protect his work, such materials shall be removed and replaced at the expense of the CONTRACTOR.

.5 The OWNER shall have the right to correct any deficiencies, without prejudice to any other remedy he may have, upon failure of the CONTRACTOR to perform the work in accordance with the Contract Documents, including any requirements with respect to the Schedule of Completion, after five (5) days written notice to the CONTRACTOR and receipt of written approval from the ENGINEER. The cost of the work so performed by the OWNER shall be paid for by the CONTRACTOR.

.6 The OWNER, acting upon the recommendation of the ENGINEER, shall have the authority to direct the CONTRACTOR not to correct work that has been damaged, or that was not performed in accordance with the Contract Documents. An equitable deduction from the Contract Amount shall be made to compensate the OWNER for the uncorrected work.

.7 The OWNER shall have the right to terminate the employment of the CONTRACTOR giving ten (10) days written notice of termination to the CONTRACTOR in the event of any default by the CONTRACTOR and upon receiving written notice from the ENGINEER certifying cause for such action in the event of such termination, the OWNER may take possession of the work and of all materials, tools and equipment thereon and may finish the work by whatever method and means he may select. It shall be considered a default by the CONTRACTOR whenever he shall:

a. Declare bankruptcy, become insolvent, voluntarily dissolve or otherwise liquidate, or assign his assets for the benefit of his creditors.

b. Disregard or violate important provisions of the Contract Documents or ENGINEER's instructions, or fail to prosecute the work according to the agreed Schedule of Completion including extensions thereof.

c. Fail to provide a qualified superintendent, competent workmen or SUBCONTRACTORS, or proper materials, or fail to make prompt payment thereof.

If the right of the CONTRACTOR to proceed is so terminated, the OWNER may take possession of and utilize in completing the work such materials, appliances, supplies, plant and equipment as may be on the site of the work, and necessary therefor. Upon termination of the CONTRACT by the OWNER, no further payments shall be due the CONTRACTOR until the work is completed. If the unpaid balance of the Contract Amount shall exceed the cost of completing the work including all overhead costs, the excess shall be paid to the CONTRACTOR.

If the cost of completing the work shall exceed the unpaid balance, the CONTRACTOR and his sureties shall pay the difference to the OWNER. The cost incurred by the OWNER, as herein provided, and the damage incurred through the CONTRACTOR's default, shall be certified by the OWNER, and approved by the ENGINEER.

Termination by the OWNER for Convenience
The OWNER may, at any time, terminate the CONTRACT for the Owner's convenience and without cause.

Upon receipt of written notice from the OWNER of such termination for the OWNER's convenience, the CONTRACTOR shall
.1 cease operations as directed by the OWNER in the notice;
.2 take actions necessary, or that the OWNER may direct, for the protection and preservation of the WORK; and,
.3 except for WORK directed to be performed prior to the effective date of termination stated in the notice, terminate all existing Project agreements, and enter into no further Project agreements and purchase orders.

In case of such termination for the OWNER's convenience, the CONTRACTOR shall be entitled to receive payment for WORK executed and accepted by the OWNER and/or ENGINEER, and costs incurred by reason of such termination, along with reasonable overhead and profit on the WORK actually completed and accepted by the OWNER and/or ENGINEER not exceeding 10%. In no event shall the CONTRACTOR be entitled to anticipated overhead and profit on WORK not performed. The CONTRACTOR waives any claim of entitlement to any other compensation or damages of any kind or nature.

.8 The OWNER shall have the right to order changes in the work through additions, deletions or modifications without invalidating the CONTRACT. Compensation and time of completion affected by the charge shall be adjusted at the time of ordering such change.

.9 The OWNER shall have the right to take possession of and use any completed or partially completed portions of the work, not withstanding that the time for completing the entire work or such portions may not have expired; but such taking possession and use shall not be deemed an acceptance of any work not completed in accordance with the Contract Documents. If such prior use increases the cost of or delays the completion of uncompleted work or causes refinishing of completed work, the CONTRACTOR shall be entitled to such extra compensation, or extension of time or both, as the ENGINEER may determine.

17. ASSIGNMENT

Neither the CONTRACTOR nor the OWNER shall sublet, sell, transfer, assign or otherwise dispose of the CONTRACT or any portion thereof, or of his right, title or interest therein, or his

obligations thereunder, without written consent of the other party.

18. ORAL AGREEMENTS

No oral order, objection, claim or notice by any party to the others shall affect or modify any of the terms or obligations contained in any of the Contract Documents, and none of the provisions of the Contract Documents shall be held to be waived or modified by reason of any act whatsoever, other than by a definitely agreed waiver or modification thereof in writing, and no evidence shall be introduced in any proceeding of any other waiver or modification.

19. INSURANCE AND INDEMNIFICATION

.1 The CONTRACTOR shall not commence work under this CONTRACT until he has obtained all the insurance required hereunder and such insurance has been approved by the OWNER, nor shall the CONTRACTOR allow any SUBCONTRACTOR to commence work on his SUBCONTRACT until all similar insurance required of the SUBCONTRACTOR has been so obtained and approved. Approval of the insurance by the OWNER shall not relieve or decrease the liability of the CONTRACTOR hereunder. The amounts of such insurance shall be not less than those amounts enumerated below. Certificates from the CONTRACTOR's insurance carriers stating the coverages provided, the limits of liability, and expiration dates shall be filed in triplicate with the ENGINEER before operations are begun.

a. Workmen's Compensation and Employer's Liability Insurance: The CONTRACTOR shall take out and maintain during the life of this CONTRACT, the statutory Workmen's Compensation and Employer's Liability Insurance for all of his employees to be engaged in work on the project under this CONTRACT and in case any such work is sublet, the CONTRACTOR shall require the SUBCONTRACTOR similarly to provide Workmen's Compensation and Employer's Liability Insurance for all of the latter's employees to be engaged in such work.

b. Commercial General Liability Insurance: The CONTRACTOR shall take out and maintain during the life of this CONTRACT such Bodily Injury Liability and Property Damage Liability Insurance and Automobile Bodily Injury Liability and Automobile Property Damage Liability Insurance as shall protect him and any SUBCONTRACTOR performing work covered by this CONTRACT for claims for damages for personal injury, including accidental death, as well as from claims for property damage, which may arise from operations under this CONTRACT, whether such operations be by himself or by any SUBCONTRACTOR or by anyone directly or indirectly employed by either of them.

c. Contractual Liability Insurance: To the fullest extent allowed by law, the CONTRACTOR shall indemnify and save harmless the OWNER and the ENGINEER and their officers, agents, servants and employees, from and against any and all claims, demands, suits, proceedings, liabilities, judgments, awards, losses, damages, costs and expenses, including attorneys' fees, on account of bodily injury, sickness, disease or death sustained by any person or persons or injury or damage to or destruction of any property, directly or indirectly arising out of, relating to or in connection with the work, whether or not due or claimed to be due in whole or in part to the active, passive or concurrent negligence or fault of the CONTRACTOR, his officers, agents, servants or employees and/or any other person or persons, and whether or not such claims,

demands, suits or proceedings are just, unjust, groundless, false or fraudulent; and the CONTRACTOR shall and does hereby assume and agrees to pay for the defense of all such claims, demands, suits and proceedings, provided, however, that the CONTRACTOR shall not be required to indemnify the ENGINEER, his officers, agents, servants or employees, against any such damages, occasioned solely by defects in maps, plans, drawings, designs or specifications prepared, acquired or used by the ENGINEER and/or solely by the negligence or fault of the ENGINEER; and provided further, that the CONTRACTOR shall not be required to indemnify the OWNER, his officers, agents, servants, or employees, against any such damages occasioned solely by acts or omissions of the OWNER other than supervisory acts or omissions of the owner in connection with the work.

d. Special Coverage Insurance: Hazards resulting from storage and use of explosives and storage of highly flammable liquids shall be covered by riders to the insurance policies or by separate policies.

e. Builders Risk Insurance: The CONTRACTOR shall procure and maintain during the life of this contract, fire and extended coverage insurance in an amount equal to the insurable value of the CONTRACT.

.2 Failure to provide and continue in force such insurance as aforesaid shall be deemed a material breach of the CONTRACT and shall operate as an immediate termination thereof.

.3 All policies shall be so written that the OWNER will be notified in writing of cancellation or restrictive amendment at least 30 days prior to the effective date of such cancellation or amendment and all policies shall name the State of Connecticut, the Town of Thompson, the ENGINEER and their respective Agents, Officials, Employees and Volunteers as Additional Insureds on a primary and non-contributory basis.

Renewal certificates must be furnished by the CONTRACTOR prior to the expiration date of any of the initial insurances.

.4 The limits for the various types of insurance shall be as follows:

a. For Workman's Compensation, as required by State Statute.

b. Commercial General Liability

General Aggregate	$1,000,000
Products/Completed Operations Aggregate	$1,000,000
Personal and Advertising Injury	$1,000,000
Occurrence Aggregate	$1,000,000
Fire Damage (any one fire)	$50,000
Medical expense (any one person)	$5000
Bodily Injury and Property Damage	$1,000,000 each occurrence/$2,000,000 aggregate

c. Automobile Liability

Combined Single Limit for each accident	$1,000,000

d. Excess/Umbrella Liability	$1,000,000/$2,000,000

Covering the liability assumed by the CONTRACTOR at a minimum limit of $1,000,000 but may be higher from time to time as requested by the Owner.

e. Builders Risk Insurance shall be procured and maintained by the CONTRACTOR covering loss by fire and extended coverage in the completed value form in the amount of the total insurable value of all structures, materials and equipment to be built and installed. The policy shall indicate the OWNER, the CONTRACTOR and all SUBCONTRACTORS as the named insured with loss payable to the owner as Trustee. The State of CT shall be listed at A.T.I.M.A.

f. Contractural Liability Insurance covering the liability assumed by the CONTRACTOR as outlined under section .1c above

The Town of Thompson, its officers (both elected and appointed), employees, and agents shall be named as additional insured on all polices, except Professional Liability and Workers Compensation, on a primary and non-contributory basis.

All insurance required hereunder shall contain waivers of subrogation in favor of the Town of Thompson, its employees, agents and elected or appointed officers. The insurance required hereunder shall be primary insurance, not excess or contributory, without any right of contribution by any insurance maintained by or on behalf of the Town of Thompson.

Thirty (30) days' written notice of cancellation is required.

The CONTRACTOR, its SUBCONTRACTORS, and Suppliers and their respective insurers waive subrogation against the OWNER and the OWNER's insurers. The OWNER and the OWNER's insurers retain all rights of subrogation.

.5 To the fullest extent allowed by law, the CONTRACTOR will indemnify and hold harmless the OWNER and the ENGINEER and their agents and employees from and against all claims, damages, losses and expenses including attorney's fees but only to the extent arising out of or resulting from the performance of the WORK, provided that any such claims, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property including the loss of use resulting therefrom; breach of CONTRACT and is caused in whole or in part by any negligent or willful act or omission of the CONTRACTOR, and SUBCONTRACTOR, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable. The hold harmless endorsement shall include the interest of the municipality and the State of CT.

.6 In any case and all claims against the OWNER or the ENGINEER, or any of their agents or employees, by any employee of the CONTRACTOR, any SUBCONTRACTOR, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, the indemnification obligation shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the CONTRACTOR, or any

SUBCONTRACTOR, under Workmen's Compensation Acts, Disability Benefit Acts or other employee benefits acts.

.7 The obligation of the CONTRACTOR under this paragraph shall not extend to the liability of the ENGINEER, his agents or employees arising out of the preparation or approval of maps, Drawings, opinions, reports, surveys, Change Orders, designs or Specifications.

20. CONTRACT SECURITY

.1 The CONTRACTOR shall furnish a Performance Bond in an amount at least equal to one hundred percent (100%) of the Contract Price as security for the faithful performance of this CONTRACT and also a labor and materials Payment Bond in an amount not less than one hundred percent (100%) of the Contract Price as security for the payment of all persons performing labor on the project under this CONTRACT and furnishing materials in connection with this CONTRACT.

.2 The sureties of all bonds shall be such surety company or companies as are approved by the OWNER, and as are authorized to transact business in the State and listed on Circular 570 of the U.S. Treasury.

.3 If at any time the OWNER, for justifiable cause, shall be or become dissatisfied with any surety or sureties then upon the Performance or Payment Bonds, the CONTRACTOR shall within five (5) days after notice from the OWNER to do so, substitute an acceptable bond (or bonds) in such form and sum and signed by such other surety or sureties as may be satisfactory to the OWNER. The premiums on such bond(s) shall be paid by the CONTRACTOR. No further payments shall be deemed due nor shall be made until the new surety or sureties shall have furnished such an acceptable bond to the OWNER.

21. EXTRA WORK

.1 Unforeseen work made necessary by change in plan or work necessary to complete the improvements, for which no unit prices are provided in the Bid Proposal, shall be done in accordance with this section of the Specifications and as directed by the ENGINEER.

.2 The ENGINEER shall notify the CONTRACTOR of the necessity for such extra work, stipulating its character and extent. Upon receipt of such notification, the CONTRACTOR shall advise the ENGINEER in writing of the compensation either unit price or lump sum as requested on those items not covered by supplemental unit prices, for which he proposes to perform the extra work required. The ENGINEER may accept the compensation proposed by the CONTRACTOR, or, if he considers the prices submitted to be excessive, he may order the work done on a "Cost Plus" basis. In either case, the character and extent of the extra work together with the accepted basis of compensation shall be communicated to the CONTRACTOR by means of a change order which, when signed by the CONTRACTOR and the ENGINEER, shall become a part of the CONTRACT.

.3 The basis of payment will be either on a unit price or lump sum basis to be agreed upon before the work is started, or in case no agreement as to price can be reached, the work may be paid for on a "Cost Plus" basis.

For all work done either on a unit price or lump sum basis, the compensation shall be in

accordance with the following requirements:

a. If applicable unit prices are contained in the Bid Proposal, the ENGINEER shall order the CONTRACTOR to proceed with desired changes in the work, the value of such changes to be determined by the measured quantities involved and the applicable unit prices specified in the Bid Proposal.

b. If applicable unit prices for all items are not contained in the Bid Proposal, additional unit prices shall be negotiated, acceptable to both parties, and the value of such changes shall be determined by the measured quantities involved, or a lump sum, acceptable to the ENGINEER, based on an itemized estimate prepared by the CONTRACTOR and modified by negotiation, if required.

.4 For all work done on a "Cost Plus" basis, the compensation shall be in accordance with the following requirements:

a. For all labor the CONTRACTOR shall receive the rate of wage actually paid as shown on his certified payroll. For all foremen in direct charge of the work, the CONTRACTOR shall receive the actual wage paid the foremen, as shown on his certified payroll.

b. For the cost of all insurance and taxes imposed by law on labor employed on the work, the CONTRACTOR shall receive the actual amount paid. To the total cost of labor, foremen and insurance shall be added fifteen percent (15%) of the sum thereof for overhead and profit.

c. For any power operated machinery, trucks or equipment, which it may be found necessary or desirable to use, the ENGINEER shall allow the CONTRACTOR the rental price as set forth in the standard schedule of equipment rental prices established by the Rental Committee of the Associated Equipment Distributors, and is hereby made a part of this CONTRACT and is accepted as such by both parties thereto.

d. For all materials used by the CONTRACTOR, he shall receive the actual cost of such materials, less any allowable cash discounts, delivered on the work, including delivery charges as shown by original receipted bills, to which shall be added fifteen percent (15%) of the sum thereof.

e. Should the proper completion of the work require equipment of a type not covered by the above mentioned schedule, the ENGINEER shall allow the CONTRACTOR a reasonable rental price to be agreed upon in writing before the work is begun.

f. No percentage shall be added to the amounts of any of the above stated equipment rental prices, but the price as set forth in the schedule or agreed upon shall be the total compensation allowed for the use of such equipment.

g. No part of the salary or expenses of anyone connected with the CONTRACTOR's forces above the grade of foreman and having general supervision of the work, will be included in the labor item as specified above, except when the CONTRACTOR's organization is entirely occupied with "Cost Plus" work, in which case, the salaries of superintendent and time keeper may be included in the labor item specified above when the nature of

the work is such that, in the opinion of the ENGINEER, their services are required. The allowable rate of such employees shall be as agreed upon before starting the work.

h. The compensation as herein provided shall be received by the CONTRACTOR as payment in full for the extra work done on a "Cost Plus" basis, and shall include superintendence, use of tools and equipment for which no rental is allowed, and profit.

i. If extra work is done under "Cost Plus" above, the CONTRACTOR and/or SUBCONTRACTOR shall keep daily records of such extra work. The daily record shall include the names of men employed, the nature of the work performed, and hours worked, materials and equipment incorporated, and machinery or equipment used, if any, in the prosecution of such extra work. This daily record, to constitute verification that the work was done, must be signed both by the CONTRACTOR's authorized representative and by the ENGINEER. A separate daily record shall be submitted for each extra work order.

   Original receipted bills covering the cost of and the transportation charges on all materials used in such work, shall be furnished to the ENGINEER by the CONTRACTOR immediately upon their payment by him.

j. All extra work performed by a SUBCONTRACTOR will be in accordance with the above requirements as if the work were performed directly by the CONTRACTOR. Extra work performed by a SUBCONTRACTOR will be paid as actual cost plus fifteen percent (15%) to SUBCONTRACTOR and five percent (5%) to the General CONTRACTOR.

k. Should the CONTRACTOR refuse or fail to prosecute the work as directed, the ENGINEER may withhold the payment of all current estimates until the CONTRACTOR's refusal or failure is eliminated.

22. EXTENSION OF CONTRACT TIME

When extra work is ordered at any time during the progress of the work which in the sole judgment of the ENGINEER, unavoidably increases the time for the completion of the work, an extension of time shall be granted.

A delay beyond the CONTRACTOR's control occasioned by an act of God, an act of omission on the part of the OWNER or by strikes, lockouts, fires, etc., may entitle the CONTRACTOR to an extension of time in which to complete the work as determined by the ENGINEER, provided however, that the CONTRACTOR shall immediately give written notice to the ENGINEER of the cause of such delay, together with a statement of the portions of work so delayed. Delays in work for which necessary material has not been received by the CONTRACTOR will not be recognized or allowed until after receipt of such necessary material.

NO DAMAGES FOR DELAY. In all events, the CONTRACTOR shall not have a separate Claim for damages or costs of any kind resulting from a delay in the WORK as demonstrated by the CONTRACTOR's schedule of critical path activities, regardless of whether all or part of such delay may be in any way attributable to the acts, the failure to act, or the omissions of the OWNER, all departments, boards, commissions, elected and non-elected officials of the OWNER, the OWNER's agents or representatives, or the OWNER's consultants, if any, or the ENGINEER. The

CONTRACTOR agrees that its sole remedy for such delay shall be an extension of time, which may be granted or denied in accordance with the terms of this CONTRACT.

Notwithstanding anything to the contrary in the CONTRACT DOCUMENTS, an extension of CONTRACT Time, to the extent permitted herein, shall be the sole remedy of the CONTRACTOR for any (1) delay in the start, prosecution, or completion of the WORK, (2) hindrance or obstruction in the performance of the WORK, (3) loss of productivity, or (4) other similar claims, whether or not such claims are foreseeable, contemplated, or uncontemplated. In no event is the CONTRACTOR entitled to any compensation or recovery of any damages, in connection with any claim, including without limitation, consequential damages, lost opportunity costs, impact damages or other similar remuneration. The OWNER's exercise of any of its rights or remedies under the CONTRACT DOCUMENTS, including without limitation, ordering changes in the WORK, or directing the suspension, rescheduling or correction of the WORK, regardless of the extent or frequency of the OWNER's exercise of such rights or remedies, are not to be construed as active interference with the CONTRACTOR's performance of the WORK.

WAIVER OF IMPACT CLAIMS. In all events, the CONTRACTOR waives all kinds of impact claims, including but not limited to, efficiency, loss of productivity, trade stacking, disruption, re-sequencing, and the like, regardless of whether all or part of such impact may be in any way attributable to the acts, the failure to act, or the omissions of the OWNER, all departments, boards, commissions, elected and non-elected officials of the OWNER, the OWNER's agents or representatives, or the OWNER's consultants, if any, or the ENGINEER.

The CONTRACTOR waives consequential damages arising out of or relating to this Contract. This waiver includes damages incurred by the CONTRACTOR for principal office expenses including the compensation of personnel stationed there, for losses of financing, business and reputation, and for loss of profit

This waiver is applicable, without limitation, to all consequential damages due to either party's termination in accordance with the CONTRACT.

23. PROGRESS PAYMENTS

.1 The CONTRACTOR may submit periodically, but not more than once each month, a Request for Payment for work done. The CONTRACTOR shall furnish the ENGINEER all reasonable facilities required for obtaining the necessary information relative to the progress and execution of the work.

.2 Within fifteen (15) days of submission of any Request for Payment by the CONTRACTOR, the ENGINEER shall:

a. Approve the Request for Payment as submitted, or

b. Approve such other amount as he shall decide is due the CONTRACTOR, informing the CONTRACTOR in writing of his reasons for approving the amended amount, or

c. Withhold the Request for Payment, informing the CONTRACTOR in writing of his reasons for withholding it.

.3 Within thirty (30) days from the date of approval of a Request for Payment by the ENGINEER,

the OWNER shall:

a. Pay the Request for Payment as approved less a five percent (5%) retainage, until substantial completion of the project, at which time the retainage will be reduced to two percent (2%) for the term of the guarantee period or

b. Withhold payment in whole or in part on an approved Request for Payment to the extent necessary to protect himself from loss on account of any of the following causes discovered subsequent to approval of Request for Payment by the ENGINEER provided he informs the CONTRACTOR and the ENGINEER in writing of his reasons for withholding payment in whole or in part:

1. Defective work.

2. Evidence indicating the probable filing of claims by other parties against the CONTRACTOR.

3. Failure of the CONTRACTOR to make payments to SUBCONTRACTORS, material suppliers or labor.

4. Damage to another CONTRACTOR.

24. ACCEPTANCE AND FINAL PAYMENT

When the CONTRACTOR shall have completed the work in accordance with the terms of the Contract Documents, the ENGINEER shall certify his acceptance to the OWNER and his approval of the CONTRACTOR's final Request for Payment, less any money to be retained for repairs if so specified in the Special Conditions section of these Specifications, which shall be the Contract Amount plus all approved additions less all approved deductions and less previous payments made. The CONTRACTOR shall furnish evidence that he has fully paid all debts for labor, materials, and equipment incurred in connection with the work, following which the owner shall accept the work and release the CONTRACTOR except as to the conditions of the Performance Bond, any legal rights of the OWNER, required guarantees, any corrections of faulty work after final payment and shall pay the CONTRACTOR's final Request for Payment. The CONTRACTOR must allow sufficient time between the time of completion of the work and approval of the final Request for Payment for the ENGINEER to assemble and check the necessary data.

25. CORRECTION OF FAULTY WORK AFTER FINAL PAYMENT

The approval of the final Request for Payment by the ENGINEER and the making of the final payment by the OWNER to the CONTRACTOR shall not relieve the CONTRACTOR of the responsibility for faulty materials or workmanship. The OWNER shall promptly give notice of faulty materials or workmanship and the CONTRACTOR shall promptly replace any such defects discovered within one year from the date of written acceptance of the work. The ENGINEER shall decide all questions arising under this paragraph.

26. SUBSTITUTIONS AND DELETIONS

Substitutions and deletions in the work shall be accomplished by the CONTRACTOR upon written order from the OWNER as approved by the ENGINEER or upon written order from the ENGINEER, which order shall state the reasons for original inclusion and subsequent elimination or substitution for materials, fixtures or equipment and that the deviation does not materially injure the project as a whole, is in the best interest of the OWNER and is of the same cost and quality as originally specified or giving the amount in dollars of any equitable adjustment to which the parties have agreed.

27. PROVISIONS REQUIRED BY LAW DEEMED INSERTED

Each and every provision of law and clause required by law to be inserted in this CONTRACT shall be deemed to be inserted herein and the CONTRACT shall be read and enforced as though it were included herein, and if through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon the application of either party the CONTRACT shall forthwith be physically amended to make such insertion or correction.

28. PROTECTION OF LIVES AND HEALTH

In order to protect the lives and health of his employees under this CONTRACT, the CONTRACTOR and his SUBCONTRACTORS shall comply with all pertinent provisions of the "Manual of Accident Prevention in Construction" issued by the Associated General Contractors of America, Inc., and shall maintain an accurate record of all cases of death, occupational disease, and injury requiring medical attention or causing loss of time from work, arising out of and in the course of employment on work under this CONTRACT. He alone shall be responsible for the safety, efficiency, adequacy of his plant, appliances, methods, and for any damage which may result from their failure or their improper construction, maintenance, or operation.

Additionally, the CONTRACTOR should note that this project is subject to all of the safety and Health Regulations (CFR 29 Part 1926 and and all subsequent amendments) as promulgated by the U.S. Department of Labor on June 24, 1974. The CONTRACTOR is urged to become familiar with the requirements of these regulations.

29. OBSTRUCTIONS ENCOUNTERED

The Drawings may show certain information which has been obtained by the OWNER regarding various pipe lines and other structures which exist at the location of the project both below and at the surface of the ground. The OWNER expressly disclaims any responsibility for the accuracy or completeness of the information given on the Drawings with regard to existing structures and pipe lines, and the CONTRACTOR will not be entitled to any extra compensation on account of inaccuracy or incompleteness of such information, said structures and pipe lines being shown only for the convenience of the CONTRACTOR, who must verify the information to his own satisfaction. The giving of this information upon the Contract Drawings will not relieve the CONTRACTOR of his obligations to support and protect all pipe lines and other structures which may be encountered during the construction of the work, and to make good all damages done to such pipe lines and structures, as provided in these Specifications.

30. INSPECTION AND TESTING

.1 All materials and equipment used in the construction of the project shall be subject to

adequate inspection and testing in accordance with generally accepted standards as required and defined in the Contract Documents.

.2 The OWNER shall provide at his expense, all inspection and testing services not required by the Contract Documents.

.3 The CONTRACTOR shall provide at his expense, the testing and inspection services required by the Contract Documents.

.4 If the Contract Documents, laws, ordinances, rules, regulations or orders of any public authority having jurisdiction require any work to specifically be inspected, tested or approved by someone other than the CONTRACTOR, the CONTRACTOR will give the ENGINEER timely notice of readiness. The CONTRACTOR will then furnish the ENGINEER the required certificates of inspection, testing or approval.

.5 Inspections, tests or approvals by the ENGINEER or others shall not relieve the CONTRACTOR from his obligations to perform the work in accordance with the requirements of the Contract Documents.

31. PATENTS

The CONTRACTOR shall pay all applicable royalties and license fees. He shall defend all suits or claims for infringement of any patent rights and save the OWNER harmless from loss on account thereof, except that the OWNER shall be responsible for any such loss when a particular process, design, or the product of a particular manufacturer or manufacturers is specified, however if the CONTRACTOR has reason to believe that the design, process or product specified is an infringement of a patent, he shall be responsible for such loss unless he promptly gives such information to the ENGINEER.

32. SUBCONTRACTORS

.1 The CONTRACTOR may utilize the services of specialty SUBCONTRACTORS on those parts of the work which, under normal contracting practices, are performed by specialty SUBCONTRACTORS.

.2 The CONTRACTOR shall not award work to SUBCONTRACTORS, in excess of fifty (50%) percent of the Contract Price, without prior written approval of the OWNER.

.3 The CONTRACTOR shall be fully responsible to the OWNER for the acts and omissions of his SUBCONTRACTORS, and of persons either directly or indirectly employed by them, as he is for the acts and omissions of persons directly employed by him.

.4 The CONTRACTOR shall cause appropriate provisions to be inserted in all SUBCONTRACTS relative to the work to bind SUBCONTRACTORS to the CONTRACTOR by the terms of the Contract Documents insofar as applicable to the work of SUBCONTRACTORS and to give the CONTRACTOR the same power as regards terminating any SUBCONTRACT that the OWNER may exercise over the CONTRACTOR under any provision of the Contract Documents.

.5 Nothing contained in this CONTRACT shall create any contractual relation between any

SUBCONTRACTOR and the OWNER.

33. MANUFACTURERS EXPERIENCE

Wherever it may be written that an equipment manufacturer must have a specified period of experience with his product, equipment which does not meet the specified experience period can be considered if the equipment supplier or manufacturer is willing to provide a bond or cash deposit for the duration of the specified time period which will guarantee replacement in the event of failure.

34. CONTRACT SCHEDULING

Immediately after execution and delivery of the contract, the Contractor shall submit to the Engineer an estimated construction progress schedule in critical path format. Such schedule shall indicate the sequence of construction, duration and proposed dates for commencement and completion of all activities. The contractor shall not begin construction operations until the owner and engineer have acknowledged, in writing the acceptance of a satisfactory schedule. The contractor shall execute his construction operation in accordance with the accepted schedule and shall add crews and equipment as may be required for this purpose.

35. EQUIPMENT AND MATERIAL APPROVAL

.1 Catalog data for equipment approved by the ENGINEER does not in any case supersede the ENGINEER's Contract Documents. The approval of the ENGINEER shall not relieve the CONTRACTOR from responsibility for deviations from Drawings or Specifications unless he has in writing called the ENGINEER's attention to such deviations at the time of submission, nor shall it relieve him from responsibility for errors of any sort in the items submitted. The CONTRACTOR shall check the work described in the catalog data with the ENGINEER's Contract Documents for deviations and errors.

.2 It shall be the responsibility of the CONTRACTOR to insure that items to be furnished fit the space available. He shall make necessary field measurements to ascertain space requirements, including those for connections, and shall order such sizes and shapes of equipment that the final installation shall suit the true intent and meaning of the Drawings and Specifications.

.3 Where equipment requiring different arrangement of connections from those shown is approved, it shall be the responsibility of the CONTRACTOR to install the equipment to operate properly, and in harmony with the intent of the Drawings and Specifications, and to make all changes in the work required by the different arrangement of connections.

.4 Manufactured articles, material and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned as directed by the manufacturer unless herein specified to the contrary.

.5 After the execution of the CONTRACT, substitution of material or equipment of makes other than those named in the CONTRACT will be considered only if the equipment proposed

for substitution is equal in construction and/or efficiency to that named in the CONTRACT.

It will be assumed that the cost to the CONTRACTOR of the material or equipment proposed to be substituted is less than the material or equipment named in the CONTRACT and if the substitution is approved, the Contract Price shall be reduced a corresponding amount.

To receive consideration, requests for substitution must be accompanied by documentary proof of the actual difference in cost to the CONTRACTOR in the form of certified copies of the equipment company's quotations to the CONTRACTOR covering the original material or equipment and also material or equipment proposed for substitution or other proof satisfactory to the OWNER. It is the intention that the OWNER shall receive the full benefit of the savings in cost involved in any substitution. In all cases the burden of proof that the material or equipment offered for substitution is equal or superior in construction and/or efficiency to that named in the CONTRACT shall rest on the CONTRACTOR, and unless the proof is satisfactory to the OWNER, the substitution will not be approved. Requests for substitution on the grounds that better delivery can be obtained on the material or equipment proposed for substitution will not be approved, for it will be assumed that the CONTRACTOR in his proposal has named material or equipment on which he has received proposals from equipment manufacturers giving a delivery time which will permit completion of the project within the Contract Time. Requests for substitution of material or equipment which the CONTRACTOR cannot prove to the satisfaction of the OWNER to be equal or superior in construction and/or efficiency to that so named in the CONTRACT will not be approved.

In the event the CONTRACTOR obtains the ENGINEER's approval on material or equipment other than that which is shown on the Plans and specified herein, the CONTRACTOR shall, at his own expense, make any changes in the structures, buildings or piping necessary to accommodate the equipment.

36. MISCELLANEOUS PROVISIONS

The CONTRACTOR is required to comply with all provisions of the Civil Rights Act of 1964, the Equal Employment Opportunity Act of 1972, Executive Orders 11246, 11375, 11478, the 13th, 14th, and 15th Amendments of the United States Constitution, Civil Rights Act of 1886, 1870, 1871, Equal Pay of 1963, Title VI and VII of the 1964 United States Civil Rights Act, Presidential Executive Orders 11246, amended by 11375, (nondiscrimination under federal contracts), Act 1, Section 1 and 20 of the Connecticut Constitution, Governor Grasso's Executive Order Number 11, Governor O'Neill's Executive Order Number 9, the Connecticut Fair Practices Law (Sec. 46a-60-69) of the Connecticut General Statutes, Connecticut Code of Fair Practices (Sec. 46a-70-81), Deprivation of Civil Rights (Sec. 46a-58(a)(d)), Public Accommodations Law (Sec. 46a-63-64), Discrimination against Criminal Offenders (Sec. 46a-80), definition of blind (Sec. 46a-51(1)), definition of Physically Disabled (Sec. 46a-51(15), definition of Mentally Retarded (Sec. 46a-51(13)), cooperation with the Commission on Human Rights and Opportunities (Sec. 46a-77), Sexual Harassment (Sec. 46a-60(a)(8)), Connecticut Credit Discrimination Law (360436 through 439), Title 1 of the State and the Local Fiscal Assistance Act of 1972..

Pursuant to section 4a-60 of the Connecticut General Statutes, the CONTRACTOR agrees and warrants that, in the performance of the Design-Build Contract, the CONTRACTOR will not discriminate or permit discrimination against any person or group of persons on the grounds of race, color, religious creed, age, marital status, national origin, ancestry, sex, mental retardation or

physical disability, including, but not limited to, blindness, unless it is shown by the CONTRACTOR that such disability prevents performance of the Work involved, in any manner prohibited by the laws of the United States or the State of Connecticut. The CONTRACTOR further agrees (1) to take affirmative action to insure that applicants with job related qualifications are employed and that employees are treated when employed without regard to their race, color, religious creed, age, marital status, national origin, ancestry, sex, mental retardation, or physical disability, including, but not limited to, blindness, unless it is shown by such CONTRACTOR that such disability prevents performance of the work involved; (2) in all solicitations or advertisements for employees placed by or on behalf of the CONTRACTOR, to state that it is an "affirmative action-equal opportunity employer" in accordance with regulations adopted by the Connecticut Commission on Human Rights and Opportunities' (3) to provide each labor union or representative of workers with which such CONTRACTOR has a collective bargaining agreement or other contract or understanding and each vendor with which such CONTRACTOR has a contract or understanding, a notice to be provided by the commission advising the labor union or workers' representative of the contractor's commitments under this section, and to post copies of the notice in conspicuous places available to employees and applicants for employment; (4) to comply with each provision of section 4a-60 and section 46a-56, 46a-68e, and 46a-68f of the Connecticut General Statutes; (5) to provide the Commission on Human Rights and Opportunities with such information requested by the commission and permit access to pertinent books, records and accounts concerning the employment practices and procedures of the contractor as related to the provisions of this section and section 46a-56 of the Connecticut General Statutes.

The foregoing principles and requirements of Equal Opportunity and Affirmative Action, as incorporated herein, will be incorporated into "Equal Opportunity- Non-Discrimination Clause" to be included in all bid documents, purchase orders, leases and contracts executed by the CONTRACTOR or any contractor, subcontractor, design professional or any entity acting on its behalf.

Equal Employment Opportunity. Except as otherwise provided under 41 CFR Part 60, all contracts that meet the definition of "federally assisted construction contract" in 41 CFR Part 60–1.3 must include the equal opportunity clause provided under 41 CFR 60–1.4(b), in accordance with Executive Order 11246, "Equal Employment Opportunity" (30 FR 12319, 12935, 3 CFR Part, 1964–1965 Comp., p. 339), as amended by Executive Order 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," and implementing regulations at 41 CFR part 60, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor."

Davis-Bacon Act, as amended (40 U.S.C. 3141–3148). When required by Federal program legislation, all prime construction contracts in excess of $2,000 awarded by non-Federal entities must include a provision for compliance with the Davis-Bacon Act (40 U.S.C. 3141–3144, and 3146–3148) as supplemented by Department of Labor regulations (29 CFR Part 5, "Labor Standards Provisions Applicable to Contracts Covering Federally Financed and Assisted Construction"). In accordance with the statute, contractors must be required to pay wages to laborers and mechanics at a rate not less than the prevailing wages specified in a wage determination made by the Secretary of Labor. In addition, contractors must be required to pay wages not less than once a week. The non-Federal entity must place a copy of the current prevailing wage determination issued by the Department of Labor in each solicitation. The decision to award a contract or subcontract must be conditioned upon the acceptance of the wage determination. The non-Federal entity must report all suspected or reported violations to the Federal awarding agency. The contracts must also include a provision for compliance with the Copeland "Anti-Kickback" Act (40 U.S.C. 3145), as supplemented

by Department of Labor regulations (29 CFR Part 3, "Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States"). The Act provides that each contractor or subrecipient must be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he or she is otherwise entitled. The non-Federal entity must report all suspected or reported violations to the Federal awarding agency.

Contract Work Hours and Safety Standards Act (40 U.S.C. 3701–3708). Where applicable, all contracts awarded by the non-Federal entity in excess of $100,000 that involve the employment of mechanics or laborers must include a provision for compliance with 40 U.S.C. 3702 and 3704, as supplemented by Department of Labor regulations (29 CFR Part 5). Under 40 U.S.C. 3702 of the Act, each contractor must be required to compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than one and a half times the basic rate of pay for all hours worked in excess of 40 hours in the work week. The requirements of 40 U.S.C. 3704 are applicable to construction work and provide that no laborer or mechanic must be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous. These requirements do not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence.

Rights to Inventions Made Under a Contract or Agreement. If the Federal award meets the definition of "funding agreement" under 37 CFR § 401.2 (a) and the recipient or subrecipient wishes to enter into a contract with a small business firm or nonprofit organization regarding the substitution of parties, assignment or performance of experimental, developmental, or research work under that "funding agreement," the recipient or subrecipient must comply with the requirements of 37 CFR Part 401, "Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements," and any implementing regulations issued by the awarding agency.

Clean Air Act (42 U.S.C. 7401–7671q.) and the Federal Water Pollution Control Act (33 U.S.C. 1251–1387), as amended—Contracts and subgrants of amounts in excess of $150,000 must contain a provision that requires the non-Federal award to agree to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401–7671q) and the Federal Water Pollution Control Act as amended (33 U.S.C. 1251–1387). Violations must be reported to the Federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA).
(H) Debarment and Suspension (Executive Orders 12549 and 12689)—A contract award (see 2 CFR 180.220) must not be made to parties listed on the governmentwide exclusions in the System for Award Management (SAM), in accordance with the OMB guidelines at 2 CFR 180 that implement Executive Orders 12549 (3 CFR part 1986 Comp., p. 189) and 12689 (3 CFR part 1989 Comp., p. 235), "Debarment and Suspension." SAM Exclusions contains the names of parties debarred, suspended, or otherwise excluded by agencies, as well as parties declared ineligible under statutory or regulatory authority other than Executive Order 12549.

Byrd Anti-Lobbying Amendment (31 U.S.C. 1352)—Contractors that apply or bid for an award exceeding $100,000 must file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress,

officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352. Each tier must also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the non-Federal award.

END OF SECTION

SPECIAL CONDITIONS

SUBSECTION	TITLE
1.	Inspection
2.	Schedule of State Min. Hourly Wage Rates – not used
3.	Money to be Retained for Repairs
4.	Temporary Heat- not used
5.	Temporary Electrical Service
6.	Temporary Water Supply – not used
7.	Traffic Control
8.	Owner's Rights
9.	Daily Clean Up
10.	Qualifications for Employment
11.	Nondiscrimination in Employment
12.	Reports, Records and Data
13.	Temp. Potable Water Supply for Residents – not used
14.	Coordination of Construction with Utilities
15.	Emergency Telephone Number
16.	Construction Safety and Health Standards

SPECIAL CONDITIONS

1. INSPECTION

The authorized representatives and agents of the OWNER shall have access and be permitted to inspect all work, materials, payrolls, records of personnel, invoices of materials and other relevant data and records whenever these are in progress of preparation. The CONTRACTOR shall provide proper and necessary facilities for such access and inspection.

2. SCHEDULE OF STATE MINIMUM HOURLY WAGE RATES

Not used

3. MONEY TO BE RETAINED FOR REPAIRS

The CONTRACTOR agrees that the OWNER may retain out of the final payment due to the CONTRACTOR under this CONTRACT, two percent (2%) of the amount thereof, and may expend the same in the manner hereinafter provided, in making such repairs or replacements of said work as the OWNER may deem expedient.

If at any time within the one (1) year period of guarantee any part of the work constructed under the terms of this CONTRACT requires repairing or replacement, the OWNER may notify the CONTRACTOR in writing to make the required repairs or replacements. If the CONTRACTOR neglects to begin making such repairs or replacements within ten days from the date of receipt of such notice, the OWNER may employ other persons to make the same. The OWNER shall pay the expense of the repairs out of the sum retained for that purpose. Upon the expiration of the one (1) year period of guarantee, provided that the work at that time is in good order, the CONTRACTOR will be entitled to receive the whole or such part of the sum retained as may remain after the expense of making repairs or replacements has been paid.

For settlement of all claims arising out of this CONTRACT against the OWNER, its officers, or agents and for all expenses, losses, or damages incurred by the OWNER by reason of said claims, it is agreed that the OWNER may keep the whole or any portion of the sum retained.

4. TEMPORARY HEAT

Not used

5. TEMPORARY ELECTRICAL SERVICE

The CONTRACTOR shall make all necessary applications and arrangements and pay all fees and charges for temporary electrical energy for power and light necessary for the proper completion of the work and during its entire progress. The CONTRACTOR shall provide and pay for all temporary wiring, switches, connections, and meters.

6. TEMPORARY WATER SUPPLY

Not Used

7. TRAFFIC CONTROL

The CONTRACTOR shall maintain alternating one-way traffic at all times in East Thompson Road. During the times of alternating one-way traffic, the contractor shall employ certified flag persons, one at either end of the construction site, to maintain the flow of traffic.

The CONTRACTOR shall also make provisions for at least 8 parking spaces reserved for Airline Trail users. Access to the trail in both directions shall remain open at all times.

8. OWNERS RIGHTS

Whenever in this CONTRACT the OWNER is to give or receive a notice or provisions are included for the exercise of rights and privileges and without limiting the generality thereof, the acts dealing with the OWNER'S prerogatives in the CONTRACT shall be exercised by the Town of Putnam or their authorized representative for and in behalf of the OWNER.

9. DAILY CLEAN UP

Before the completion of each day's work, the CONTRACTOR shall be responsible for cleaning up and removing or relocating all excavated material, debris, equipment and the like and for temporarily backfilling or filling excavations as necessary to insure the continuous flow of traffic in roadways where work is progressing including access to private property during non-working hours.

10. QUALIFICATIONS FOR EMPLOYMENT

No person under the age of sixteen years shall be employed on the project under this CONTRACT. No persons whose age or physical condition is such as to make his employment dangerous to his health or safety or to the health or safety of others shall be employed on the project under this CONTRACT; provided, that this shall not operate against the employment of physically handicapped persons, otherwise employable, where such persons may be safely assigned to work which they can ably perform. No person currently serving sentence in a penal or correctional institution and no inmate of an institution for mental defectives shall be employed in the project under this CONTRACT.

11. NON DISCRIMINATION IN EMPLOYMENT

In connection with the performance of work under this CONTRACT, the CONTRACTOR agrees not to discriminate against any employee or applicant for employment because of race, religion, color, or national origin. The aforesaid provision shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation; and selection for training, including apprenticeship.

The CONTRACTOR agrees and warrants that in the performance of this CONTRACT he will not discriminate or permit discrimination against any person or group of persons on the grounds of race, color, religious creed, age, marital status, national origin, sex, sexual orientation or physical disability unless it is shown by such CONTRACTOR that such disability prevents performance of the work involved in any manner prohibited by the laws of the United States or of the State of Connecticut, and further agrees to provide the commission on human rights and opportunities with such information requested by the commission concerning the employment practices and procedures of the CONTRACTOR as related to the provisions of this section.

12. REPORTS, RECORDS AND DATA

The CONTRACTOR and each of his SUBCONTRACTORS shall submit to the OWNER, the State DECD or any of their duly authorized representatives such schedules of quantities and costs, progress schedules, payrolls, reports, estimates, records and other data as they may request concerning work performed or to be performed under this CONTRACT.

13. TEMPORARY POTABLE WATER SUPPLY FOR RESIDENTS

Not used

14. COORDINATION OF CONSTRUCTION WITH UTILITIES

The CONTRACTOR shall schedule his work to accommodate the upgrading, maintaining or realignment of utilities in the CONTRACT area by the utility companies affected by the proposed construction. The CONTRACTOR's attention is directed to the fact that scheduling of his operation to minimize the impact to the residents and the maintaining of the utilities that service them is inclusive in this CONTRACT. No additional compensation shall be made for scheduling or rescheduling because of field changes.

15. EMERGENCY TELEPHONE NUMBER

The CONTRACTOR is required to provide the OWNER with a telephone number which can be used during emergencies, 24 hours per day, seven days per week, to reach the CONTRACTOR.

16. CONSTRUCTION SAFETY AND HEALTH STANDARDS

It is a condition of this CONTRACT, and shall be made a condition of each SUBCONTRACT entered into pursuant to this CONTRACT, that the CONTRACTOR and any SUBCONTRACTOR shall not require any laborer or mechanic employed in performance of the CONTRACT to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to his health or safety, as determined under construction safety and health standards (Title 29, Code of Federal Register on April 17, 1971) promulgated by the United States Secretary of Labor, in accordance with Section 197 of the CONTRACT Work Hours and Safety Standards Act, (83 Stat. 96).

END OF SECTION

Technical Specifications
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TRAIN WRECK PARK

TOWN OF THOMPSON

MARCH 2024

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34 71 13	Vehicle Guide Rails

SECTION 01 33 00
SUBMITTALS

PART 1. GENERAL

1.1 SYSTEM DESCRIPTION

A. Wherever possible throughout the Contract Documents, the minimum acceptable quality of workmanship and materials has been defined either by manufacturer's name and catalog number or by reference to recognized industry standards.

B. To ensure that the specified products are furnished and installed in accordance with design intent, procedures have been established for advance submittal of design data and for its review and approval or rejection by the Engineer.

C. Make all submittals of Shop Drawings, Samples, Requests for Substitutions and other items, in strict accordance with the provisions of these Specifications.

PART 2.

2.1 SHOP DRAWINGS

A. The Contractor shall submit shop drawings and working drawings for all items fabricated or manufactured to be incorporated into the work, including but not limited to pipe, pipe fittings, concrete reinforcement, structural details, piping layouts including hangers and supports, manholes and appurtenances materials fabricated especially for the Contract, all mechanical equipment without exception, and materials and equipment for which such drawings are specifically requested.

B. Such drawings shall show the principal dimensions, weight, structural and operating features, space required, clearances, type and/or brand of finish or shop coat, grease fittings, etc., depending on the subject of the drawings. When it is customary to do so, when the dimensions are of particular importance, or when so specified, the drawings shall be certified by the manufacturer or fabricator as correct for the Contract.

C. When so specified or if considered by the Engineer to be acceptable, manufacturer's specifications, catalog data, descriptive matter, illustrations, etc., may be submitted in place of shop and working drawings. In such case the requirements shall be as specified for shop and working drawings, insofar as applicable.

D. No material or equipment shall be purchased or fabricated especially for the Contract until the required shop and working drawings have been submitted as hereinabove provided. All such materials and equipment and the work involved in their installation or incorporation into the work shall then be as shown on and represented by said drawings.

E. All shop and working drawings shall be submitted to the Engineer by and/or

through the Contractor, who shall be responsible for obtaining shop and working drawings from his subcontractors and returning approved drawings to them. All drawings shall be clearly marked with the names of the OWNER, CONTRACTOR, and building, equipment, or structure to which the drawing applies, and shall be suitably numbered. Each shipment of drawings shall be accompanied by a letter of transmittal giving a list of the drawing numbers and the name mentioned above.

F. Only drawings which have been checked and corrected by the fabricator should be submitted to the Contractor by his Subcontractor and vendors. Prior to submitting drawings to the Engineer, the Contractor shall check thoroughly all such drawings to satisfy himself that the subject matter thereof conforms to the Drawings and Specifications in all respects. ALL DRAWINGS WHICH ARE CORRECT SHALL BE MARKED WITH THE DATE, CHECKER's NAME, AND INDICATION OF THE CONTRACTOR'S APPROVAL AND THEN SHALL BE SUBMITTED TO THE ENGINEER; OTHER DRAWINGS SHALL BE RETURNED FOR CORRECTION.

G. Release of shop drawings for purchase, fabrication, installation or construction signifies only that such drawings have been checked for general conformance with design concept. Such release does not indicate acceptance of every detail of the drawings, nor the Contractor's work methods indicated thereon. Release of drawings, or comments made on the drawings do not relieve the Contractor from compliance with the requirements of the Contract Documents. In addition, such release does not relieve the Contractor of the responsibility for any error which may exist, as the Contractor shall be responsible for the dimensions and design of adequate connections and details and satisfactory construction; the Engineer will not be responsible for minor errors or minor discrepancies of the Contract Drawings, nor for errors in the Contractor's shop drawings, even though released. Cost of the Contractor's drawings, revisions thereof, and copies furnished are deemed to be included in the Contract Price.

H. Should the Contractor submit drawings for equipment that requires modifications to the structures, piping, layout, etc., detailed on the Drawings, he shall also submit details of the proposed modifications. Any modifications to structures or substitute designs submitted for approval must carry the stamp of a Registered Professional Engineer within the State of Connecticut or as provided by State Statute. If such equipment and modification are accepted, the Contractor, at no additional cost to the Owner, shall do all work necessary to make such modifications.

I. Should the Contractor submit drawings for equipment that requires modifications to the structures, piping, layout, etc., detailed on the Drawings, he shall also submit details of the proposed modifications. Any modifications to structures or substitute designs submitted for approval must carry the stamp of a Registered Professional Engineer within the State of Connecticut or as provided by State Statute. If such equipment and modification are accepted, the Contractor, at no additional cost to the Owner, shall do all work necessary to make such modifications.

2.2 PRODUCT DATA

A. Manufacturer's standard schematic drawings.

1. Modify drawings to delete information which is not applicable to project.
2. Supplement standard information to provide additional information applicable to project.

B. Manufacturer's catalog sheets, brochures, diagrams, schedules, performance charts, illustrations and other standard descriptive data.

1. Clearly mark each copy to identify pertinent materials, products or models.
2. Show dimensions and clearances required.
3. Shop performance characteristics and capacities.
4. Show wiring diagrams and controls.
5. Indicate shipping and operating weights of individual pieces of mechanical and electrical equipment.

2.3 SAMPLES

A. Physical examples to illustrate materials, equipment or workmanship, and to establish standards by which completed work is judged.

B. Office Samples: of sufficient size and quantity to clearly illustrate:

1. Functional characteristics of products or material, with integrally related parts and attachment devices.
2. Full range of color samples.
3. After review, samples may be used on construction of Project.

2.4 SUBSTITUTIONS

A. Engineer Approval Required

1. The Contract is based on the materials, equipment and methods described in the Contract Documents.
2. In the event specified item or items will not be available, so notify the Engineer prior to receipt of bids.

PART 3. EXECUTION

3.1 CONTRACTOR RESPONSIBILITIES

A. Review Shop Drawings, Product Data and Samples prior to submission.

B. The Contractor shall be responsible for the prompt and timely submittal of all

shop and working drawings so that there shall be no delay to the work due to the absence of such drawings.

C. Verify

1. Field measurements.
2. Field construction criteria.
3. Catalog numbers and similar data.
4. Conformance with Drawings and Specifications.

D. Coordinate each submittal with requirement of Work, Contract documents, and each specification section.

E. Contractor's responsibility for errors and omissions in submittals is not relieved by Engineer's review of submittals.

F. Contractor's responsibility for deviations in submittals from requirements of Contract Documents is not relieved by Engineer's review of submittals, unless Engineer gives written acceptance of specific deviations.

G. Notify Engineer in writing at time of submission of deviations in submittals from requirements of Contract Documents.

H. Begin no work which requires submittals until return of submittals with Engineer's stamp and initials or signature indicating review.

I. After Engineer's review, distribute copies.

3.2 SUBMISSION REQUIREMENTS

A. Schedule submissions sufficiently in advance, at least 30 days, and in such sequence to cause no delay in the work due to absence of such drawings. Review each section for requirements.

B. Submit pdfs to J & D Civil Engineers, LLC of Shop Drawings, and of Product Data which Contractor requires for distribution.

C. Submit number of Samples specified in each of specification sections.

D. Accompany submittals with transmittal letter containing

1. Date.
2. Project Title and number.
3. Contractor's name and address.
4. The number of each Shop Drawing, Product Data and Sample submitted.
5. Notification of deviations from Contract Documents.
6. Other pertinent data.
7. Submittal number.
8. Specifications Section and paragraph number.

E. Submittals shall include

1. Date and revision dates.
2. Project title and number.
3. The names of

   a. Engineer
   b. Contractor
   c. Subcontractor
   d. Supplier
   e. Manufacturer
   f. Separate detailer, when pertinent.
4. Identification of product or material.
5. Relation to adjacent structure or materials.
6. Field dimensions, clearly identified as such.
7. Specification section number.

8. Applicable standards, such as ASTM number of Federal Specification.
9. A blank space, 3" x 5" for the Engineer's stamp.
10. Identification of deviations from Contract Documents.
11. Contractor's stamp, initialed or signed, certifying to review of submittal, verification of field measurements and compliance with Contract Documents.
12. Each submittal shall have a sequential submittal number, appropriate specification section, paragraph and page reference.

3.3 RESUBMISSION REQUIREMENTS

A. Shop Drawings

1. Revise initial drawings or data as required and resubmit as specified for initial submittal.
2. Indicate on drawings any changes which have been made other than those requested by Engineer.
3. Product Data and Samples

B. Samples

1. Submit new data and samples as required by initial submittal.

3.4 DISTRIBUTION OF SUBMITTALS AFTER REVIEW

Distribute copies of Shop Drawings and product Data which carry Engineer stamp to

1. Contractor's File.
2. Job Site File.
3. Subcontractors.
4. Supplier.
5. Fabricator.

3.5 ENGINEER'S DUTIES

A. Review submittals with reasonable promptness (allow at least two weeks).

B. The Engineer shall mark each drawing A. "No Exceptions Taken", B. "Make Corrections Noted ", C. "Revise and Resubmit", or D. "Rejected"; the Contractor may proceed with purchase, fabrication, installation and/or construction only when either of the first two notations are marked. If C. "Revise and Resubmit" or D. "Rejected" is marked, no work shall be fabricated, installed and/or constructed and the CONTRACTOR shall make a new submission, and resubmit the drawings until they no longer receive the mark C. "Revise and Resubmit" or D. "Rejected", before proceeding with purchase, fabrication installation and/or construction. The CONTRACTOR shall resubmit all drawings until they are marked A. "No Exceptions Taken" or B. "Make Corrections Noted".

C. Review for

1. Design concept of project.
2. Information given in Contract Documents.

D. Review of separate item does not constitute review of an assembly in which item functions.

E. Affix stamp and initials or signature certifying to review of submittal.

F. Return submittals to Contractor for distribution.

END OF SECTION

SECTION 10 14 53
TRAFFIC SIGNAGE

PART 1 – GENERAL

1.1 WORK INCLUDED

A. Work specified under this section shall consist of the furnishing of all labor, materials and equipment to install the traffic signs where shown on the plans.

1.2 DELIVERY, STORAGE AND HANDLING

1.3 QUALITY ASSURANCE

A. Manual of Uniform Traffic Control Devices (MUTCD)
B. CONNDOT Form 818

1.3 SUBMITTALS

A. Submit shop drawings for each sign type in accordance with 01 33 00 – Submittals. Custom signs shall not be fabricated until approved by engineer.

1.5 MEASUREMENT AND PAYMENT

A. There will be no separate measurement and payment for this item. The cost of all material, labor and equipment for this item is to be included in the lump sum base bid.

PART 2- PRODUCTS

2.1 ACCETPABLE MANUFACTURERS – N/A

2.2 MATERIALS

A. Sign faces shall be reflective sheet aluminum as specified in CONNDOT Form 818. Metal sign posts (breakaway) and mounting bolts shall be in accordance with CONNDOT Form 818 and DOT Standard Sheets TR-1220-01 AND 02.

B. Colors and letters shall meet MUTCD standards.

2.3 STANDARD CONNDOT SIGNS

See project plan set detail sheets for signs required.

PART 3 - EXECUTION

3.1 GENERAL

- Sign location shall be verified with the Engineer prior to installation. Stakes shall be placed in the ground at the proposed sign location. Stakes shall be labeled with sign type. Install as per plans and CONNDOT Form 818.

END OF SECTION

SECTION 10 14 55

MAINTENANCE AND PROTECTION OF TRAFFIC

Part 1 – GENERAL

1.1 Work Included

A. The Contractor shall maintain and protect traffic as follows:

East Thompson Road

The Contractor shall maintain and protect alternating one way traffic at all times. The contractor shall employ certified flag persons to maintain the flow of traffic. Traffic barrels and cones shall be placed in accordance with the MUTCD.

Air Line trail Parking Lot

The Contractor shall provide parking for at least 8 vehicles for trail users for the duration of construction.

Residential driveways and Air Line State Park Trail Access

The Contractor shall maintain access to and egress from residential driveways throughout the project limits. The Air Line State Park trail shall remain open throughout the duration of construction. Contractor shall delineate the trail through the work zone with traffic cones and/or barrels.

1.2 DELIVERY, STORAGE, AND HANDLING – not used

1.3 MATERIAL TESTING/QUALITY ASSURANCE

Work shall conform with the requirements of CONNDOT Form 818 and the MUTCD.

1.4 SUBMITTALS – not used

1.5 MEASUREMENT AND PAYMENT

A. There will be no separate measurement and payment for this item. The cost of all material, labor and equipment for this item is to be included in the lump sum base bid. This shall also include temporarily relocating existing signs and sign supports as many times as deemed necessary and furnishing, installing, and removing temporary sign supports and foundations if necessary during construction of the project.

B. Part 2 – PRODUCTS – NOT USED

Part 3 – EXECUTION

SIGNING

The Contractor shall maintain all existing signs throughout the project limits during the duration of the project. The Contractor shall temporarily relocate existing signs and sign supports as many times as deemed necessary and install temporary sign supports and foundations if necessary and as directed by the Engineer. The temporary relocation of any existing signs and supports, and the furnishing, installation and removal of any temporary supports and foundations, shall be paid for under the item "Maintenance and Protection of Traffic."

SIGNING PATTERNS

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

END OF SECTION

SECTION 31 11 00
CLEARING AND GRUBBING

PART 1 - GENERAL

1.1 WORK INCLUDED

A. Furnish all labor, tools and equipment necessary for clearing, grubbing, and stripping where required, and removing, together with the proper disposal all trees, downed timber, snags, brush, vines, rubbish, stumps, roots, logs and other objectionable materials, except as otherwise provided herein, from such areas required to complete this project as shown on the drawings, stated in the Specifications or as designated by the Engineer.

B. The Contractor shall provide, at his own expense, temporary access roads, if required, including any gravel fill required for the moving and removing of his equipment to and from the work site.

1.2 DELIVERY, STORAGE AND HANDLING

A. All topsoil and soil shall remain the property of the Owner and shall be stockpiled at a location on site approved by the Engineer. The stockpile shall be protected from erosion by wind and water at all times. Any material lost due to improper management by the Contractor shall be replaced by the Contractor at no additional cost to the Owner.

1.3 MEASUREMENT AND PAYMENT

A. No separate measurement or payment will be made for this item. The cost of all material, labor and equipment required for this item is to be included in the base bid.

PART 2 - PRODUCTS

Not required

PART 3 - EXECUTION

3.1 GENERAL

A. Prior to any work of this section of the specifications, or any related work as may be required by other sections, the Contractor shall have a licensed land surveyor flag the limits of disturbance prior to the installation of erosion control devices or the removal of trees. The limit of disturbance shall extend 3' beyond the proposed cut and/or fill limits or as shown on the plans. The contractor is hereby notified of requirements noted on the plans with regard to methods and procedures for protecting and saving specific specimen trees.

B. At all times throughout the duration of this contract, the Contractor will be held responsible for the appearance and condition of the area surrounding the job site and he will repair or replace, at no additional expense to the Owner, any structures, either natural or man-made, utilities, trees, plants, water bodies, pavements, etc., that are damaged or destroyed by any actions or sequences of events related to his contract operation.

C. Any existing plant materials designated to be saved, protected and/or undisturbed, that are cut or destroyed will be replaced in kind and size by the Contractor, at no expense to the Owner. If replacement is impossible, the Contractor shall pay the Owner monies equal to one hundred ($100.00) times the tree trunk diameter, measured in inches; this measurement to be taken at a height of two feet six inches up from the average natural grade around the base of the tree.

D. In those areas indicated on the drawings, where structures or parts of structures will be constructed on compacted fill, all stumps of all trees and brush, together with their major roots, all vegetation, topsoil, organic matter or any other material encountered below the topsoil which is considered unfit for proper foundation, shall be stripped and removed. The extent of this stripping shall be within an area encompassed within the toe of a 1:1 slope extending down from a line located 2 feet outside the bottom perimeter of any footing or slab founded on fill.

3.2 METHODS

A. Preparation of the site shall include the complete removal of all trees within the limit of disturbance.

B. The stumps of all trees and brush, together with their major roots, shall be grubbed and removed in all excavation areas and under all embankments and graded and paved areas when the original ground level is within 3-1/2 feet of the proposed finish surface.

C. All trees, stumps, and brush shall be cut-off within 6 inches of the ground when the original ground level is more than 3-1/2 feet below the finished surface.

D. Grubbing shall consist of the grubbing up, removal and disposal of all stumps, roots larger than 1-1/2 inches in diameter, and matted root formations from the designated areas to a depth below existing ground area of not less than 18 inches. All rocks or boulders near the existing surface shall be removed and disposed of as waste materials.

E. Clearing operations shall be performed in a manner which will prevent damage by falling trees to trees left standing or to structures under construction, and by methods which will provide for the safety of employees and other persons.

3.3 DISPOSAL

A. Disposal of waste materials may involve securing permits, licenses, or approvals. The Contractor shall apply for these, as they will be required, paying any fees, etc., far enough in advance of the work so that this process shall not delay the contract operation.

B. All trees and stumps, including cuttings and slash removed under this Section of the Specifications, shall become the property of the Contractor and the satisfactory disposal of the wood in such trees, cuttings and slash shall become his responsibility.

C. Burning will not be permitted. Stumps, large logs, brush and all combustibles shall be

disposed of off the site, at the Contractor's expense or, if permitted by the Engineer, at approved locations on the site, provided all brush is chipped in an approved chipping machine.

D. Salvaging of trees usable for sawlogs or cordwood will be at the Contractor's option. The work site preparation will not be considered as completed until disposal of all resulting waste materials is completed to the satisfaction of the Engineer.

END OF SECTION

SECTION 31 23 00
EXCAVATION AND FILL

PART 1 - GENERAL

1.1 WORK INCLUDED

A. Work under this section shall include all labor, materials, services and equipment necessary to excavate, fill and grade, and satisfactorily dispose of all surplus excavated material, the removal of which is necessary for the proper installation of the parking lot.

1.2 SUBMITTALS AND MATERIAL TESTING

A. The Contractor shall submit a sieve analysis and lab density test of each material to be used on the job.

B. Compaction Testing: gravel subbase and processed aggregate base shall be compacted to 95% maximum dry density to depths shown on the plan when tested in accordance with AASHTO T180, Method D as per State of Connecticut Standard Specifications Form 818. Two locations each for base and subbase shall be tested for the parking lot and driveway.

1.3 MEASUREMENT AND PAYMENT

A. There shall be no separate measurement and payment for work of this section.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Gravel subbase shall meet the gradation requirements for gravel grading "B" section M.02.02 State of Connecticut Standard Specifications Form 818. Native gravel from the site may be used if, after processing, it meets the required gradation requirements and is approved by the engineer.

B. Processed Aggregate Base shall meet the requirements of section M.05.01 State of Connecticut Standard Specifications Form 818. Gravel shall be from a source approved by the engineer.

C. Sand borrow shall be from an approved source and shall meet the following gradation:

Sieve Size	Percentage Passing
5/8"	100
#4	60-100
#40	10-60
#100	2-10

D. Bank Run Gravel shall meet the requirements of grading "A" of section M.02.01-2 State of Connecticut Standard Specifications Form 818.

E. Crushed stone or screened gravel shall consist of sound, tough durable stone containing no organic material and meeting the gradation requirements of section

M.01.01 State of Connecticut Standard Specifications Form 818. Gravel shall be from a source approved by the engineer.

F. Common fill may be used for raising grades below pavement sections and landscaped areas. Common fill should consist of mineral soil, free of clay, organic soils, deleterious material and particles larger than 10” in size, which can be spread and compacted.

G. Riprap must meet the requirements of section M.12.02 State of Connecticut Standard Specifications Form 818.

PART 3 - EXECUTION

3.1 INSTALLATION

A. After silt fenced is installed and clearing and grubbing is complete, the contractor shall perform cutting and filling operations to achieve subgrade elevation.

B. Trenches excavations shall be made with vertical sides unless otherwise approved by the engineer. Trench widths up to 12” above the top of the pipe shall be restricted to those shown on the drawings.

C. Trench bottoms shall be graded evenly to ensure uniform bearing for full length of all pipes. Excavate at least 6" below pipes at all points. In the case of over excavation, refill with crushed stone at no additional cost.

D. Install pipe in bedding material in accordance with the details. Any installation instructions recommended by the pipe manufacturer shall be followed.

E. Above the bedding material trenches shall be backfilled with the materials and to the heights indicated on the plans.

F. The Contractor shall provide, install, maintain and remove all shoring bracing and other items necessary to retain banks or excavations and prevent cave-ins and displacement of adjoining ground.

G. Contractor should exercise care in the underdrain installation so that the crushed stone or screened gravel is kept clean and free of loose soil that would clog the voids between the stones.

3.2 DISPOSAL OF MATERIALS

A. As much of the excavated materials as are required and of a satisfactory quality will be used for backfilling over the pipelines and appurtenances.

B. The contractor shall dispose of surplus excavated material which cannot be used as fill or backfill material at no additional cost to the contract. Prior to disposing of any material on private property the contractor shall confirm with the Town that the site has received any necessary permits to receive said material.

3.3 EXCAVATION BELOW NORMAL GRADE

A. It is expected that satisfactory foundations will be found at the elevations shown on the drawings, but in case the materials encountered are not suitable or in case it is found desirable or necessary to go to additional depth, the excavation shall be carried to an additional depth as ordered and refilled as directed.

3.5 BACKFILLING

A. Trenches: The backfill material used shall be of a quality satisfactory to the Engineer and shall be free from large or frozen lumps, organic soil, sod, wood and other extraneous material. The material shall be placed in layers of not more than six (6) inches in depth after compaction and shall be thoroughly compacted by means of mechanical rammers, vibrators, or pneumatic tampers. No stone or rock fragment larger than three (3) inches in greatest dimension shall be placed in any layer. Hand tampers shall be used only upon written permission of the Engineer. The use of ponding or jetting as opposed to mechanical compaction is at the discretion of the Engineer.

B. Backfill and fill shall be placed in layers not to exceed 12” after compaction, 8” under pavements. The entire area of each layer shall be compacted with the appropriate type of roller or compactor or combination thereof until a layer of the required minimum density has been produced.

3.6 COMPACTION OF SUBGRADE FOR TURF ESTABLISHMENT AREAS

A. Fills at 4’ or greater below finished elevations: compact subgrade material to 85% maximum density in accordance with ASTM D 1557

B. Fills less than 4’ below finished elevations: using track mounted bulldozers, spread fill in layers of 12”. Do not use vibratory compaction equipment or rubber tired vehicles.

3.7 EARTHWORK DURING FREEZING WEATHER

A. Precautions should be taken if work takes place while temperatures are below freezing. Frozen soil or soil containing snow or ice should not be used as compacted fill. Placement of fill should not be conducted when air temperatures are below freezing.

B. Fill should not be placed on snow, ice, or frozen subgrades. At the end of each day’s operations, the last lift of placed fill should be rolled by a smooth-wheeled roller to eliminate ridges of uncompacted soil to aid runoff and drainage.

END OF SECTION

SECTION 31 25 00
EROSION AND SEDIMENTATION CONTROLS

PART 1 - GENERAL

1.1 WORK INCLUDED

A. Work specified in this Section shall consist of furnishing labor, materials and equipment to provide temporary and permanent erosion and sedimentation control structures and measures in conformity with the Contract Drawings and as specified herein.

B. Erosion and sedimentation controls shall be provided in accordance with these Specifications for all areas within the limits of this Contract where existing earth and vegetation will be disturbed by construction.

C. The Engineer or Town official may order, at no additional cost to the project, additional control measures if the measures proposed and used prove insufficient.

1.2 QUALITY ASSURANCE

A. The contractor shall comply with all conditions of the 2023 CT E & S Guidelines.

1.3 SUBMITTALS

A. Manufacturer's descriptive literature or catalogue cuts which provide the name and address of manufacturer and supplier and ASTM Specifications to which the products are manufactured.

1.4 MEASURE AND PAYMENT

A. No separate measurement or payment will be made for this item. The cost of all material, labor and equipment required for this item is to be included in the base bid.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

A. North American Green (tensar)
B. Mirafi
C. Filtrexx

2.2 MATERIALS

A. Silt fence shall be a woven polypropylene with the following characteristics:
AOS-30 (US sieve)
Flow rate – 8 gal/min/sf
Mullen Burst – 300 psi
The fabric shall be stapled to hardwood posts (min 1.25 ' x 1.25") spaced no more

than 10′ apart. Mirafi 100x Envirofence or equal.

B. Erosion control blanket: (ECB) shall be S150 as manufactured by North American Green (Tensar).

C. Silt Sock manufacturer shall be Filtrexx or approved equal.

D. If the contractor desires to substitute another product for the one specified, he shall provide manufacturer's catalogs and soil loss calculations showing that the proposed product will perform exactly as the one specified. Substitutions will not be allowed merely because a similar product is less expensive.

PART 3 - EXECUTION

3.1 PREPARATION

A. Prior to grubbing, stripping, excavation, placement of fill, temporary or permanent placement of excavated materials, or other earthwork within the limits of this Contract, the Contractor shall implement erosion and sedimentation control measures in conformance with the plans and these Specifications.

B. Temporary measures for controlling erosion and sedimentation may include, but are not limited to, the following:

1. Temporary seeding and mulching or other temporary cover of soil stockpiles or disturbed areas.
2. Silt Fence
3. Other temporary practices as approved by the Engineer.

C. Where disturbed areas (other than areas to be paved) cannot be permanently stabilized within 30 days of exposure of the soil, the areas shall be temporarily seeded and mulched, or otherwise stabilized as approved by the Engineer.

D. Stockpiled soil materials shall be temporarily seeded and mulched or otherwise stabilized as approved by the Engineer.

E. All temporary and permanent control measures shall be periodically inspected and maintained by the Contractor for the duration of the construction period of this Contract. Sediment collection devices shall be cleaned when sediment reaches half the height of the structure, and the removed material disposed of at an approved disposal area.

3.2 INSTALLATION

Install E & S devices as specified on the plans and in accordance with the manufacturers' recommendations.

END OF SECTION

SECTION 32 12 16
ASPHALT PAVING

PART 1 - GENERAL

1.1 WORK INCLUDED

A. This Section covers the furnishing of all labor, material, and equipment required to pave the areas shown on the plans.

1.2 QUALITY ASSURANCE AND TESTING

A. Sampling and testing shall be in accordance with DOT Form 818 Section 4.06, latest revision and DMT Manual Chapter 7 – Schedule of Minimum Requirements for Sampling Materials for Test.

B. The contractor is responsible for providing the mix formula, the gradation results and Marshall molds to the Owner.

C. The contractor shall have nuclear density testing performed by an approved testing lab using a machine certified by the state in accordance with Section 4.06 table 5.

1.3 SUBMITTALS

A. Before delivery of materials, certified copies of the reports of all tests shall be submitted to the Engineer and approved. The testing shall have been performed in a qualified testing laboratory.

1.4 MEASUREMENT AND PAYMENT

A. No separate measurement or payment will be made for this item.

PART 2 - PRODUCTS

2.1 BITUMINOUS CONCRETE PAVEMENT MATERIALS

A. The materials for bituminous concrete mixture, the sources of supply, formula for mix, mix tolerances, approval of mix formula, and the control of the mixture shall conform to the requirements of the "State of Connecticut DOT Standard Specifications", Form 818 latest edition.

2.2. PAINT

A. Paint shall be in accordance with Section 32 17 23 Pavement Markings.

2.3 PAVEMENT THICKNESSES

A. Pavement depths and classifications shall be as shown on the Plans

2.3 OTHER MATERIALS

A. All other materials, not specifically described but required for proper and complete installation of bituminous concrete pavement, shall be as selected by the Contractor subject to the approval of the Engineer.

PART 3 - EXECUTION

3.1 SUBSURFACE WORK

A. All underground construction within eight feet of the proposed pavement area shall be complete, inspected and approved before pavement construction is started. This includes all pipelines, catch basins, electrical conduit, fences, light bases or other items which could otherwise require disruption to new work or redoing work previously completed.

3.2 TRANSPORTATION OF MIXTURE

A. The mixture shall be transported form the mixing plant in trucks that have previously been cleaned of all foreign material and that have no gaps through which material might inadvertently escape. The use of kerosene, gasoline, fuel oil or similar products for the coating of the inside of truck bodies is prohibited. Loaded trucks shall be tightly covered.

3.3 PAVERS

A. 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. Automatic screed controls for grade and slope shall be used unless otherwise approved by the Engineer.

3.4 ROLLERS

A. All rollers shall be self-propelled and designed for compaction of bituminous concrete and shall comply in all other respects with section 4.06.

3.5 CONSTRUCTION METHODS

A. Areas to be paved shall be staked out by a licensed land surveyor.

B. All paving work shall conform to the typical cross sections shown on the detail and the "State of Connecticut DOT Standard Specifications", Section 4.06 latest

edition.

C. The minimum temperature for material in the truck prior to discharge into the paver hopper shall be 290 degrees F.

D. Do not commence placement of bituminous material when the surface temperature is below 40 degrees F, nor during fog, rain, or when the base is wet or frozen or other unsuitable conditions. Air temperature shall be 40 degrees F and rising.

E. Avoid hand spreading whenever possible.

F. Excessive hand raking (luting) behind the spreader causes segregation of the mixture and is not permitted.

G. Roll and compact in accordance with Form 818, Section 4.06 and section 2-621.

H. Ensure that no roller marks are visible.

I. Placement of bituminous concrete pavement shall be performed by a reputable organization employing experienced personnel and maintaining specialized equipment for this type of construction on a regular basis. Personnel who are thoroughly trained and experienced in the skills required shall perform the actual finishing of bituminous concrete surfaces and operation of the required equipment.

J. Construct all transverse joints, longitudinal joints, permanent transitions, temporary transitions and keyways as per DOT requirements

K. Smoothness and uniformity shall be in accordance with section 2-629 or corrections will be required.

L. Traffic shall not be permitted on the newly laid pavement until the material has cooled and hardened to the satisfaction of the Owner. In no case shall traffic be allowed if temperature exceeds 140 degrees. Flushing with water to hasten the cooling is prohibited.

END OF SECTION

SECTION 32 17 23
PAVEMENT MARKINGS

PART 1 - GENERAL

1.1 WORK INCLUDED

A. Provide pavement markings as shown on the Drawings, as specified herein, and as needed for a complete and proper installation.

1.2 SUBMITTALS

A. Product data: Within 10 calendar days after the Contractor has received the Owner's Notice to Proceed, submit:

1. Materials list of items proposed to be provided under this Section;
2. Manufacturer's specifications and other data needed to prove compliance with the specified requirements;
3. Photographs, scale drawings, or other data acceptable to the Engineer, showing types of graphics proposed to be used.

1.3 QUALITY ASSURANCE

A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
B. CT DOT Form 818
C. Manual of Uniform Traffic Control Devices

1.4 MEASUREMENT AND PAYMENT

A. Include all work of this section in the base bid.

PART 2 - PRODUCTS

2.1 PAVEMENT MARKING PAINT

A. Material for this work shall conform to the requirements of Form 818 Article M.07.22 Epoxy Resin Pavement Markings. Color to be yellow for double centerline otherwise white except where noted differently on plan.

PART 3 - EXECUTION

3.1 SURFACE CONDITIONS

A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected. Temperature of the pavement must be at least 40 degrees and surface must be dry. No pavement markings shall be applied until at least two weeks after the asphalt has been placed or until after a rainstorm of at least 0.5".

3.2 LAYOUT

Not used

3.3 APPLICATION

A. Secure the Engineer's approval of graphics design and layout prior to start of application. The sizes of the stencils must conform with State and /or Federal guidelines.

B. Using proper masking, stencils, and application equipment recommended for the purpose by the manufacturer of the approved paint, apply the approved paint in strict accordance with its manufacturer's recommendations and DOT Standard Specifications Form 818, 12.10.03.

3.4 PROTECTION

A. Provide traffic cones, barricades, and other devices needed to protect the paint until it is sufficiently dry to withstand traffic.

3.5 CLEANUP

A. When paint is thoroughly dry, visually inspect the entire application, and.

1. Touchup as required to provide clean, straight lines and surfaces throughout.
2. Using a permanently opaque paint identical in color to the surface on which the paint was applied, block out and eliminate all traces of splashed, tracked, and/or spilled pavement marking paint from the background surfaces.

3.6 PERFORMANCE AND WARRANTY

A. Shall be in accordance with Form 818 section 12.10.03

END OF SECTION

SECTION 32 90 00
PLANTING

PART 1 - GENERAL

1 WORK INCLUDED

A. Planting all trees and shrubs, including finishing operations.
B. Plant pit and shrub bed excavation, and backfill mixtures.
C. Work shall include keeping pavements clean and work area in an orderly condition. It shall also include protecting all plantings and turf areas from damage due to landscape operations, operations by other CONTRACTORS and trades, and trespassers; maintaining protection during installation and maintenance periods; and treating, repairing, or replacing damaged landscape work as directed to comply with the Contract.

1.2 QUALITY ASSURANCE

A. Standards:

1. All plants shall meet or exceed the specifications of Federal, State and County laws requiring inspection for plant disease and insect control.
2. Quality, size and ball size shall conform with the latest issue of ANSI Z60.1 "American Standard for Nursery Stock" by the American Association of Nurserymen, Inc. And its amendments.
3. All plants shall be certified true to name by the nursery source. One plant of each species shall be tagged with the name and size of the plant in accordance with the standards and practice of the American Association of Nurserymen. Botanical name shall take precedence over common names.
4. American National Standards Institute (ANSI): ANSI Z60.1 Nursery Stock.
5. Department of Agriculture (DOA) Soil Conservation Service Soil Survey Investigation Report No. 1: Soil Survey Laboratory Methods and Procedures for Collecting Soil Samples.

B. Qualifications of Installers:

1. The work shall be conducted by a single, experienced firm specializing in standard landscape work of a comparable nature and scope, with proof of experience with projects of this type and size. Provide at least one person who shall be thoroughly familiar with the type of materials being installed and shall direct all work performed under this Section.

1.3 SUBMITTALS:

A. Product Literature:

1. Fertilizers

2. Tree anchors
3. Weed control fabric

B. Samples:

1. Shredded bark mulch

1.4 MEASUREMENT AND PAYMENT

PART 2 – PRODUCTS

2.1 PRODUCT HANDLING

A. Delivery and storage:

1. Deliver all items to the job site in their containers with all labels intact and legible at the time of inspection. Notify Engineer of delivery schedule at least two days in advance so plant material may be inspected upon arrival at job site. Remove unacceptable plant material immediately from job site.
2. Do not drop materials from vehicles.
3. Deliver trees and shrubs after preparations for planting have been completed and install immediately. If planting is delayed more than six hours after delivery, set planting materials in shade, protect from weather and mechanical damage, and keep roots moist by covering with mulch, burlap, or other acceptable means.
4. Use all means necessary to protect plant materials before, during, and after installation and to protect the work and materials of all other trades.

B. Replacements: In the event of damage, immediately make all repairs and replacements necessary at no additional cost to the Owner.

C. Handling of other materials: Deliver fertilizer to site in original unopened containers bearing manufacturer's guaranteed chemical analysis, name, trade name, and conformance to State law. Store soil conditioners, pH adjusters, fertilizers, and mulch in dry locations away from contaminants. Protect landscape fabric against exposure to direct sunlight.

2.2 PROJECT CONDITIONS

A. Utilities: Determine location of above grade and underground utilities and perform work in a manner which will avoid damage. Hand excavate, as required. Maintain grade stakes until removal is mutually agreed upon by parties concerned.

B. Excavation: When conditions detrimental to plant growth are encountered, such as rubble fill, adverse drainage conditions, or obstructions, notify Engineer before planting.

2.3 TREES AND SHRUBS

A. Nursery grown.
B. Hardy: under climatic conditions similar to those in the locality of the project.
C. Typical: of their species or variety, with a normal habit of growth. Sound, healthy and vigorous. Well-branched and densely foliated when in leaf, free of disease, sunscale, windburn, abrasion, harmful insects or insect eggs, and shall have healthy, unbroken, well-developed root systems. Deciduous trees and shrubs shall be symmetrically developed and of uniform growth, with straight boles or stems and no disfigurements. Evergreen trees and shrubs shall have well-developed symmetrical tops with typical spread of branches for each species or variety. Container grown plants shall have sufficient root growth to hold soil intact when removed from containers. Root bound plants are not acceptable.
D. Substitutions: will be permitted only upon prior written approval of the Owner.
E. Sizes: shall conform to the measurement specified on the Drawings and as specified herein. Plants larger than specified on the Drawings may be used if approved. Use of such plants shall not increase the Contract price.
F. Quantities: The Contractor shall supply all plant material in quantities sufficient to complete the plantings as shown. If there is a discrepancy between the plants shown on the Drawings and quantities given, the greater number will prevail. Discrepancies will not entitle the Contractor to an extra.

2.4 PLANTING BACKFILL MIXTURES

A. 1/3 topsoil, and 2/3 native on-site subsoil -Bulk mix on-site prior to delivery of plants

2.5 TOPSOIL

A. Loam shall be a "fine sandy loam" or a "sandy loam" determined by mechanical analysis and based on the "U.S.D.A. classification system." It shall be of uniform composition, without mixture of subsoil. It shall be free of stones, lumps, plants and their roots, debris and other extraneous matter over 1 inch in diameter or excess quantities of smaller pieces of the same materials as determined by the Engineer. It shall not contain toxic substances harmful to plant growth. It shall be obtained from naturally well drained areas which have never been stripped before and shall conform to the following general gradation requirements:

Soil Type	Maximum % of Total Weight (per load)
Very coarse sand, coarse sand, gravel (passing #35 sieve)	15% or less
Fine and medium sand or coarser (passing #200 sieve)	30-45%
Clay, silt, and very fine sand (remains)	40-55%

No more than 10% of loam shall be clay, with organic matter comprising not less than 5%, nor more than 20% of the total weight per load. Soluble salts shall not be higher than 75 parts per million.

2.6 COMMERCIAL FERTILIZER

A. Slow-Release Fertilizer: Granular fertilizer consisting of 50 percent water-insoluble nitrogen, phosphorus, and potassium, for use on all trees and shrubs, in the following composition:

1. Composition: Nitrogen, phosphorous, and potassium in amounts recommended in soil reports from a qualified soil-testing agency.

B. "Roots" liquid concentrate, and/or "Roots Plus" granular, fertilizers as manufactured by Roots, Inc., Science Park, New Haven, CT 06511, 203-787-5472, or approved equal for use on all tree plantings.

2.7 GUY STAKES

A. 2" x 2" diameter by minimum eight foot long pointed cedar stakes, free of knot holes and other defects.

2.8 GUY WIRE

A. Two strand, twisted, pliable galvanized steel wire, not lighter than 12 gauge.

2.9 FRICTION GUARDS

A. Black rubber reinforced hose not less than ½" internal diameter. Cut to required lengths to protect tree trunks from damage by wires.

2.10 SHREDDED BARK MULCH

A. Use shredded hardwood or cedar mulch free from deleterious materials or dyes and suitable for to dressing of trees, shrubs and plants

2.11 WEED CONTROL LANDSCAPING FABRIC

A. Provide a commercial grade non woven highly durable UV protected fabric that allows water, air, herbicides and fertilizer to permeate.

PART 3 - EXECUTION

3.1 PLANTING MIXTURE

A. Before mixing, clean topsoil of roots, plants, sods, stones, clay lumps, or other extraneous materials harmful to the health of plants.
B. Thoroughly mix all amendments to topsoil prior to commencing planting operations.
C. For pit and trench type backfill, mix planting soil prior to backfilling, and stockpile at site.

3.2 PLANTING PROCEDURES

A. Balled and burlapped and container planting:
   1. All locations for woody plant materials shall be staked out on site by the Contractor and approved, adjusted, or revised by the Engineer before planting.
   2. Excavate plant pits as detailed, remove and spread excess excavated material to on-site areas acceptable to the Engineer or remove from site if directed by the Engineer. Scarify bottom and sides of each plant pit. Tree pits minimum 24" greater in diameter than the plant ball and 6 inches deeper. Bottom center should be slightly raised to provide proper drainage. Bottom should be thoroughly tamped to prevent settling. In planting beds and islands, continuously excavate to the minimum dimensions as detailed or greater if needed to remove compacted materials.
   3. Fill excavations for trees and shrubs with water and allow water to percolate out prior to planting. All plant pits must be free draining. Notify the Engineer if positive drainage does not exist.
   4. Set all plants in the center of plant pits, plumb and straight with top of ball at same elevation as adjacent finished grades and as detailed on the drawings. Root crown should be visible at the top of the root ball.
   5. Handle balled and burlapped plants from the ball only.
   6. Face each plant to give the best appearance.
   7. Carefully remove only surplus bindings and synthetic materials that do not readily decompose. Remove burlap from upper portion of ball as detailed. Do not pull burlap away from the plant.

8. When set, place additional backfill around base and sides of ball, and work each layer to settle backfill to eliminate voids and air pockets. Backfill all pits 2/3 their depth with prepared plant backfill mixture, water thoroughly and allow to settle, then tamp around to fill all voids and air pockets. Complete backfilling to conform to required elevations after settlement.
9. Provide a 5' diameter, 3" thick mulch ring around each tree. Mulch should not come in contact with tree trunk. Highest point of mulch shall be at least 18" from trunk to create a shallow saucer.

3.3 FINISHING OPERATIONS

A. Staking and Guying Trees:
   1. Guy, stake and anchor each tree as shown on the applicable drawings immediately after planting. Fasten anchors to trees with cable and run through a rubber hose (friction guard) and tighten cables or guy wires. Keep trees plumb and taut.
   2. Place rubber hoses of sufficient length to prevent injury to tree trunks around cables or guy wires.
   3. Guying cables and wires not to interfere with lower limbs and to be equally spaced and under same tension. Install guy wires at least 6 feet above finish grade for all trees of 3" caliper and over. Install guy wires at least 3 feet above finish grade for all trees of less than 3" caliper. When tree has been steadied erect, wires shall be tightened to equalize pressure to prevent excessive wind movement. Contractor shall see that there is no twisting strain thrown on tree trunks when slack is taken up on wires and that rubber hose sections are installed in such a manner that there will be no friction damage to bark.
   4. Stakes shall be of sufficient length that on being driven substantially into the ground, tops of stakes will be no less than two-thirds the distance from the ground to the lowest branches or forks.

B. Pruning: The amount of pruning to be limited to the minimum necessary to remove dead wood or injured twigs or branches. Make cuts with sharp instruments, flush with trunk or adjacent branch to eliminate stubs. Prune all new deciduous trees and shrubs when necessary in accordance with current AAN standards. Remove and replace all excessively pruned or misformed stock resulting from improper pruning.

C. Watering Plants: Thoroughly water all plants to a minimum root depth immediately after planting and as necessary to guarantee the plant material. Landscape Contractor shall supply necessary topsoil to compensate for any settling that takes place due to watering.

D. Restoration and Clean-up: Clean paved areas of dirt and debris. Remove from site all excess materials, debris, and equipment. Repair damage resulting from planting operations.

3.4 MAINTENANCE

A. Period required: begins immediately after planting. Continue until final acceptance, but in no case, less than 12 months after substantial completion of the project.

B. Maintenance requirements: include watering, weeding, renewing mulch, minor pruning, fertilizing, spraying and any other operations necessary to properly maintain plant viability. Restore planting saucers. Tighten and repair stage and guy supports and reset trees and shrubs to proper grades or vertical positions as required. Remove and replace plants not in healthy growing condition.

C. Watering during Establishment Period: Provide and maintain temporary piping, hoses, and watering equipment to convey water from sources and to keep plants from drying out. Water, as required, all new plantings to prevent drought stress.

D. Fertilizing: Apply fertilizer to trees and shrubs early in first Spring after planting. Use "Roots" liquid or equal on all trees and shrubs at manufacturer's specified rates. Use granular, slow-release fertilizer on all woody plants at manufacturer's specified rates.

3.5COORDINATION AND SCHEDULING

A. Proceed with and complete all landscape work as rapidly as portions of the site become available, working within seasonal limitations for each kind of landscape work required. Conduct planting operations under favorable weather conditions. In general, plant during Fall and Spring when plants are dormant. Do not plant when the ground is frozen or saturated.

B. Coordination with lawns: Plant trees after final grades are established and prior to planting of lawns, unless otherwise acceptable to the Engineer. If planting of trees occurs after lawn work, protect lawn areas and promptly repair damage to lawns resulting from planting operations.

END OF SECTION

SECTION 32 92 00
TURF ESTABLISHMENT

PART 1 – GENERAL

1.1 WORK INCLUDED

A. This section includes the furnishing of all labor, materials, tools and equipment necessary to properly loam and seed the site. This work shall include all the incidental operations necessary to establish a sturdy growth, to prevent erosion, and to replace unsatisfactory work or materials.

1.2 SUBMITTALS

A. Furnish samples of seed intended to be used with certified analysis from the vendor and the vendor's name and address. These must be approved by the Engineer. The Contractor must have all seed delivered and in storage on the project for any one planting season.

B. Submit an analysis of the chemical composition of all topsoil relative to fertilizer and lime requirements for the onsite topsoil. In addition the lab shall provide a textural analysis, percent organic matter and soluble salts.

1.3 QUALITY ASSURANCE

A. The planting season for grass shall be from April 15 to June 1 and from August 15 to October 1, except as otherwise authorized by the Owner or Engineer.

B. All loam used in the work under this Section shall be approved for use by the Engineer prior to being spread.

1.4 MEASUREMENT AND PAYMENT

A. No separate measurement or payment will be made for this item. The cost of all material, labor and equipment required for this item is to be included in the Base Bid.

PART 2. - PRODUCTS

2.1 LOAM

A. Loam shall be a "fine sandy loam" or a "sandy loam" determined by mechanical analysis and based on the "U.S.D.A. classification system." It shall be of uniform composition, without mixture of subsoil. It shall be free of stones, lumps, plants and their roots, debris and other extraneous matter over 1 inches in diameter or excess quantities of smaller pieces of the same materials as determined by the Engineer. It shall not contain toxic substances harmful to plant growth. It shall be obtained from naturally well drained areas which have never been stripped before

and shall conform to the following general gradation requirements.

Soil Type	Maximum % of Total Weight (per load)
Very coarse sand, coarse sand, gravel (passing #35 sieve)	15% or less
Fine and medium sand or coarser (passing #200 sieve)	30-45%
Clay, silt, and very fine sand (remains)	40-55%

No more than 10% of loam shall be clay, with organic matter comprising not less than 5%, nor more than 20% of the total weight per load. Soluble salts shall not be higher than 0.8 mmhos/cm.

2.2 SEED

A. Grass seed shall be fresh, clean, new crop seed. Seed shall be delivered to the work site with each container bearing the dealer's guaranteed analysis.

B. Slopes seed shall be Chas. C. Hart's (S)Low Grow Mixture or approved no or low grass grass mixture:
   40% Sword Hard Fescue
   40% Nakiska Sheep Fescue-COATED
   20% Azure Blue Sheep Fescue

2.3 LIME

A. Lime shall be standard commercial ground limestone and shall be applied at a rate to be determined by the Engineer subsequent to the testing of loam; however, the rate shall not exceed 50 to 100 lbs. per 1000 square feet.

2.4 COMMERCIAL FERTILIZER

A. Starter commercial fertilizer shall be standard 10-20-10 dry granular mixture, delivered in the manufacturer's containers and containing a guaranteed analysis by weight of at least 10 parts Nitrogen, 20 parts Phosphorus and 10 parts Potash, applied at the rate to be determined by testing, but not to exceed 10 lbs. per 1000 square feet.

2.5 MULCH

A. Hay shall consist of a mowed, properly cured grass, clover, or other acceptable

plant. Straw shall consist of stems or stalks after threshing. Salt hay shall not be used. Hydroseeding, with incorporated wood fiber mulch and tackifier, may be utilized.

PART 3.0 – EXECUTION

3.1 TOPSOIL STRIPPING

A. Mow heavy growths of grass or other existing vegetation to 1-2” height.

B. Strip topsoil to whatever depths encountered and is such a manner as to prevent intermingling with the underlying subsoil.

3.2 LOAMING

A. After acceptance of subgrade, grade as necessary to bring the subgrade to a true smooth slope, parallel to and 6” below finished grade, for all areas to be seeded.

B. Not used

C. Not used

D. Subgrade will be inspected and approved by Engineer before placing of loam.

E. Place loam and spread over approved areas to a depth sufficiently greater than the 6” specified thickness so that after natural settlement and light rolling, the completed work will conform to the lines, grades and elevations indicated.

F. After loam has been spread, it shall be carefully prepared by scarifying or harrowing and hand raking. All large stiff clods, lumps, brush, roots, stumps, litter and other foreign matter, and stones over 3/4" in diameter shall be removed from the loam which shall also be free of smaller stones in excessive quantities as determined by the Engineer.

G. Roll the surface with a hand roller weighing not more than 100 lbs. per ft. of width. During the rolling, all depressions caused by settlement of rolling shall be filled with additional loam and the surface shall be regraded and rolled until presenting a smooth and even finish to the required grade.

H. not used

I. After the lime has been applied and worked into the loam, the entire area shall receive an application of commercial fertilizer at the rate as specified above.

3.3 SEEDING

A. Seed shall be spread at least four days after fertilization of the soil by an approved mechanical method at the rates as specified above. Seed shall be lightly raked into the soil to a depth of approximately 1/8 inch (and not more than 1/4 inch). Seeding shall be done in two directions at right angles to each other.

B. Seeding shall not be done after rain without first loosening the ground, nor when the velocity of the wind exceeds that of a gentle breeze.

C. All areas not covered by Erosion Control Blanket or Riprap shall be mulched with straw or hay at the rate of 1.5 tons per acre or hydromulched.

D. Hydroseeding: The application of grass seed, fertilizer, and mulch may be accomplished in one operation by the use of an approved spraying machine. The materials shall be mixed with water in the machine and kept in an agitated state in order that the materials may be uniformly suspended in the water. The spraying equipment shall be so designed so that when the solution is sprayed over an area, the resulting deposits of limestone, fertilizer, and grass seed shall be equal in quantity to the required rates specified above. Application rates shall be in the range of 2000 – 3000 pounds of wood fiber mulch and 75-100 pounds of tackifier per acre.

3.4 WATERING

A. The Contractor shall water the seeded area with a sufficient quantity of water to prevent soil dry out and to obtain proper seed germination. The Contractor shall not over water at any one time to cause loam erosion or seed transport. This operation shall continue until a satisfactory growth has been established.

3.5 MAINTENANCE

A. During the period of germination and early seedling development water grass daily to maintain soil moisture at or near field capacity, then continue at 1" per week.

B. Bare spots shall be reseeded until a satisfactory turf is established and the Contractor shall maintain and turn over to the Owner a well kept lawn. This 60-day time period may extend beyond the original Contract Construction time period. Maintenance shall include watering and reseeding.

END OF SECTION

SECTION 33 41 00
STORM UTILITY DRAINAGE PIPING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions to Contract, including General and Special Conditions and Division 1 specifications apply to this section.

1.2 SECTION INCLUDES

A. This section includes all the labor, materials, equipment and all necessary incidentals required to furnish and properly install drainage pipe to the lines and grade at all the locations shown on the drawing, as specified or as directed by the Engineer.

1.3 SUBMITTALS

A. The Contractor shall submit, to the Engineer, prior to ordering or shipping of any pipe material, the manufacturers descriptive literature or catalogue cuts which will provide the following information:

1. Name and address of manufacturer and supplier.
2. Physical dimensions of pipe and fittings to be supplied.
3. Reference Specifications to which the material is manufactured.
4. Joint and gasket details.
5. Load bearing capacity of the pipe.
6. Certificate of Conformance.

1.4 QUALITY ASSURANCE

A. State of Connecticut DOT Standard Specifications, Form 818

1.5 HANDLING AND STORAGE

A. All material will be subject to inspection for acceptance at the latest practical time the Engineer has the opportunity to check for compliance prior to, or during, incorporation of the material in the work. Any pipe, in the opinion of the Engineer, that has been damaged shall be promptly removed from the job site and replaced with an acceptable similar product.

1.6 MEASUREMENT AND PAYMENT

A. No separate measurement or payment will be made for this item. The cost of all material, labor and equipment required for this item is to be included in the Base Bid.

PART 2 - PRODUCTS

A. CPP shall be smooth interior high density polyethylene pipe (HDPE) N12 as manufactured by Lane, Hancor or ADS and shall conform to the requirements of the "State of Connecticut DOT Standard Specifications", Form 818, as updated, section M.08.01.25

B. Perforated CPP underdrain shall be perforated polyethylene tubing as manufactured by Lane, Hancor or ADS and shall conform to the requirements of the "State of Connecticut DOT Standard Specifications", Form 818, as updated, section M.08.01.25.

PART 3 - EXECUTION

3.1 LAYING PIPE

A. Pipe shall be carefully and accurately laid and firmly bedded on approved foundation material, true to the lines and grades indicated. Excessively wet or unsuitable soil in the bottom of the trench which will not properly support the pipe shall be removed to a satisfactory depth and replaced with select, compacted material. The pipe trench shall be free of any flowing water during pipe laying operations and the bedding shall be firm and stable. Where shown on the Plans the Contractor shall install factory made plugs or caps.

3.2 JOINTING PIPE

A. The joints and installation shall conform to the manufacturer's specifications.

3.3 ADJUSTING AND CLEANING

A. After pipe laying is complete and all connections are made, and before any flow is permitted in the conduit, each pipe run shall be inspected and cleared of all soil, sediment, stones, construction debris and all other foreign material. In no case will such material be allowed to be flushed downstream from the immediate work area.

3.4 PROTECTION

A. When pipe laying is not in progress, the open ends of the pipe shall be closed to prevent entrance of water. Any pipe which has floated shall be removed from the trench and relaid to the satisfaction of the Engineer at the Contractors expense.

END OF SECTION

SECTION 33 49 13
STORM DRAINAGE STRUCTURES

1 – GENERAL

1.1 WORK INCLUDED

A. This section covers the furnishing of all labor, materials, tools and equipment necessary to construct drainage structures as shown on the Plans or as required by the Engineer.

1.2 QUALITY ASSURANCE

A. State of Connecticut DOT Standard Specifications, Form 818, as updated.

1.3 SUBMITTALS

A. The Contractor shall submit to the Engineer, prior to ordering or shipping of any drainage structures, the manufacturers descriptive literature or catalogue cuts which will provide the following information:

1. Name and address of manufacturer and supplier.
2. Certificate of Conformance.

1.4 MEASUREMENT AND PAYMENT

A. No separate measurement or payment will be made for this item.

2 - PRODUCTS

2.1 DRAINAGE STRUCTURES

A. Catch basins and drain manholes shall conform to the requirements of the "State of Connecticut DOT Standard Specifications", Form 818, as updated. All type "C" catchbasin tops shall include curb inlets. The style of type "C" tops shall be determined by the adjacent curb and shall be appropriate to blend for either bituminous, concrete or granite curb as specified on the plans.

B. Grates for Type C-L CB's shall be ADA compliant.

C. Yard boxes shall be by J.B. Concrete Products, Inc or approved equal as shown on the detail sheets.

3 - EXECUTION

3.1 CONSTRUCTION METHODS

A. Construction methods shall conform to the "State of Connecticut DOT Standard Specifications", Form 818, as updated.

B. All drainage structures shall be cleaned (accumulated sediment removed) prior to acceptance.

3.2 PIPE CONNECTIONS

A. All pipe connections shall be made in strict compliance with the manufacturer's instructions and the requirements of the "State of Connecticut DOT Standard Specifications ", Form 818, as updated.

END OF SECTION

SECTION 34 71 13
VEHICLE GUIDE RAILS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions to Contract, including General and Special Condition and Division 1 specifications apply to this section.

1.2 SUMMARY

A. Provide all materials, labor, equipment and services necessary to furnish and deliver work of this sections as shown on the drawings, as specified and as required by job conditions.

1.3 SUBMITTALS

A. Submit manufacturer's product data for guide rail.

1.4 QUALITY ASSURANCE

A. Use adequate numbers of skilled craftsmen thoroughly familiar with the specified materials, methods and requirements needed for proper performance of the work of this section.

1.5 MEASUREMENT AND PAYMENT

A. No separate measurement or payment will be made for this item. The cost of all material, labor and equipment required for this item, including end anchorages, is to be included in the Base Bid.

PART 2 - PRODUCTS

2.1 WOODEN GUIDE RAIL

A. Install Light Duty wood guide rails as indicated on the plans.

2.2 METAL BEAM RAIL

A. Not used

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install as per detail shown on plan and/or CDOT standards.

END OF SECTION