

PROJECT MANUAL

PARKING LOT PAVING ESSEX ELEMENTARY SCHOOL CENTERBROOK, CONNECTICUT

DATE: April 25th, 2016

**PARKING LOT PAVING ESSEX ELEMENTARY SCHOOL
CENTERBROOK, CONNECTICUT**

**PROJECT MANUAL
TABLE OF CONTENTS**

A. Bidding Requirements

- 1. Invitation to Bid 1
- 2. Instruction to Bidders..... 2
- 3. Bid Form..... 9

B. Condition of Contract

- 1. Part I - General Conditions
(EJCDC C-700, 2007ed) 11
- 2. Part II - Supplementary Conditions..... 12

C. Specifications

- 1. Division 1 - General Requirements..... 15
- 2. Division 2 - Site Work..... 19

D. Agreement Between Owner and Contractor..... 24

E. Addenda

**F. Drawings: “PROPOSED ESSEX ELEMENTARY SCHOOL PAVING, STATION 0+00 TO 16+50,
PREPARED FOR THE TOWN OF ESSEX, ESSEX, CT”. Scale: As Shown, Dated:
6/19/12, Sheets: 1 of 2 and 2 of 2, Prepared by Doane-Collins Engineering Associates, LLC,
Centerbrook, CT 06409**

SECTION 00100 - INVITATION TO BID

ISSUING OFFICE:

TOWN OF ESSEX
29 West Avenue
Essex, CT 06426

PROJECT: ESSEX ELEMENTARY SCHOOL PAVING PROJECT

Bidders are invited to submit a sealed bid on the Bid Form provided in accordance with the requirements of this paving project and the following instructions. The work comprises installation of curbing and paving of parking lots at Essex Elementary School

The Town of Essex will received sealed bids by Town of Essex First Selectman's Office, 29 West Ave, Essex, CT 06426, until 2:00 PM on Friday, May 6, 2016, at which time they will be publicly opened and read aloud. Bids received after the Bid Opening will be returned unopened.

The Contract Documents, including Plans and Specifications will be on file and available to contractors at the Town of Essex website after Friday 4/22/16.

A mandatory walk through conference will be held on Monday, April 25, 2016 at 11:00 am at the Elementary School, 108 Main Street Centerbrook, CT 06409. Please report to the Main Office. Interested bidders must attend in order to be considered for this project.

A satisfactory Bid Bond or Certified Check, in the amount equal to five percent (5%) of the base bid shall be submitted with each bid. The Bid Bond shall be made payable to Town of Essex and shall be properly executed by the Bidder and acceptable sureties. All bonds must be from sureties registered in the State of Connecticut.

Bidders shall obtain and maintain, at the Bidder's expense, such insurance as will protect the Bidders from claims under Workers' Compensation and Comprehensive General Liability Insurance that will protect the Town of Essex from all claims of bodily injury, death or property damage which may arise from the performance by the Bidder or the Bidder's employees in the functions and services to the Town of Essex.

Limits of insurance shall be \$1,000,000 per occurrence, \$3,000,000 aggregate. Workers' Compensation shall be in accordance with Connecticut Statutes. The selected Bidder shall, within five (5) business days of the award, provide proof of insurance.

The Town of Essex and its Agencies and Commissions are Affirmative Action – Equal Opportunity employers. Respondents to the bid agree and warrant that in the performance of the work on these projects, they 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. Respondents agree to provide the State of Connecticut Commission on Human Rights and Opportunities with such information requested by the Commission concerning employment practices and procedures.

This project is being funded by the Town of Essex. The Town of Essex reserves the right to reject any and all bids and to waive any informality in the bidding process. It shall be understood that the award made by the Town of Essex shall be final and conclusive and without recourse or appeal by the remaining Bidders.

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

Dated this 11th day of April, 2016
Norman Needleman, First Selectman

SECTION 00200 - INSTRUCTIONS TO BIDDERS

1. Defined Terms.

1.1 Terms used in these Instructions to Bidders which are defined in the Standard General Conditions of the Construction Contract (EJCDC C-700, 2007ed) have the meanings assigned to them in the General Conditions. The term "Bidder" means one who Bid directly to the Owner, as distinct from a sub-bidder, who submits a Bid to a Bidder. The term "Successful Bidder" means the lowest, qualified, responsible and responsive Bidder to whom Owner (on the basis of Owner's evaluation as hereinafter provided) makes an award. The term "Bidding Documents" includes the Advertisement or Invitation to Bid, Instructions to Bidders, the Bid Form, and the proposed Contract Documents (including all Addenda issued prior to receipt of Bids).

2. Copies of Bidding Documents.

2.1 Complete sets of Bidding Documents may be obtained from the Town of Essex Board website.

2.2 Complete sets of the Bidding Documents must be used in preparing Bids; neither Owner nor Engineer assume any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.

2.3 Owner and Engineer in making copies of Bidding Documents available on the above terms do so only for the purpose of obtaining Bids on the Work and do not confer a license or grant for any other use.

3. Qualifications of Bidders.

3.1 To demonstrate qualifications to perform the Work, each Bidder must be prepared to submit, within five days of Owner's written request, written evidence, such as financial data, previous experience, present commitments and other such data as may be called for below or in the Supplementary Instructions. Each Bid must contain evidence of Bidder's qualification to do business in the State of Connecticut or covenant to obtain such qualification prior to award of contract.

4. Examination of Contract Documents and Site.

4.1 It is the responsibility of each Bidder before submitting a Bid, to (a) examine the Contract Documents thoroughly, (b) visit the site to become familiar with local conditions that may affect cost, progress performance or furnishing the Work, (c) consider federal, state and local Laws and Regulations that may affect cost, progress, performance or furnishing the Work, (d) study and carefully correlate Bidders observations with the Contract Documents, and (e) notify Engineer of all conflicts, error or discrepancies in the Contract Documents.

4.2 Reference is made to the Supplementary Conditions for identification of:

4.2.1 those reports of explorations and tests of subsurface conditions at the site which have been utilized by Engineer in preparation of the Contract Documents. Bidder may rely on the accuracy of the technical data contained in such reports but not upon non- technical data, interpretations or opinions contained therein or for the completeness thereof for the purposes of bidding or construction. (Tests not conducted for this project)

4.2.2 those drawings of physical conditions in or relating to existing surface and subsurface conditions (except Underground Facilities) which are at or contiguous to the site which have been utilized by Engineer in preparation of the Contract Documents. Bidder may rely upon the accuracy of the technical data contained in such drawings but not upon the completeness thereof for the purposes of bidding or construction.

4.3 Before submitting a Bid each Bidder will be responsible to make or obtain such explorations, tests and data concerning physical conditions (surface, subsurface and underground facilities) at or contiguous to the site, or otherwise which may affect cost, progress, performance, or furnishing of the Work and which Bidder deems necessary to determine its Bid for performing and furnishing the Work in accordance with the time, price and other terms and conditions of the Contract Documents.

4.4 On request in advance, Owner will provide each Bidder access to the site to conduct such explorations and tests as each Bidder deems necessary for submission of a Bid. Bidder shall fill in all holes, clean up and restore the site to its former condition upon completion of such explorations.

4.5 The lands upon which the Work is to be performed, rights-of-way and easements for access thereto and other lands designated for use by contractor in performing the Work are identified in the Contract Documents. All additional lands and access thereto required for temporary construction facilities or storage of materials and equipment are to be provided by Contractor. Easements for permanent structures or permanent changes in existing structures are to be obtained and paid for by Owner unless otherwise provided in the Contract Documents.

4.6 The submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article 4, that without exception the Bid is premised upon performing and furnishing the Work required by the Contract Documents and such means, methods, techniques, sequences or procedures of construction as may be indicated in or required by the Contract Documents, and that the Contract Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance and furnishing the Work.

5. Interpretations and Addenda.

5.1 All questions about the meaning or intent of the Contract Documents are to be directed to the Selectman's office mlucarelli@essexCT.gov . Interpretations or clarifications considered necessary by Engineer in response to such questions will be issued by Addenda mailed or delivered to all parties recorded by the Building Committee as having attended the mandatory walk thru. Questions received less than three days prior to the date for opening of Bids may not be answered. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

5.2 Addenda may also be issued to modify the Bidding Documents as deemed advisable by Owner or Engineer.

6. Bid Security.

6.1 Each Bid must be accompanied by Bid Security made payable to Owner in an amount of five percent of the Bidder's maximum Bid price and in the form of a certified bank check or a Bid Bond (on form attached, if a form is prescribed) issued by a surety meeting the requirements of Paragraph 5.1 of the General Conditions.

6.2 The Bid security of the Successful Bidder will be retained until such Bidder has executed the Agreement and furnished the required contract security, whereupon the Bid security will be returned. If the Successful Bidder fails to execute and deliver the Agreement and furnish the required contract security within fifteen days after the Notice of Award, Owner may annul the Notice of Award and the Bid security of that Bidder will be forfeited. The Bid security of other Bidder's whom Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of the seventh day after the Effective Date of the Agreement or the forty-sixth day after the Bid opening, whereupon Bid security furnished by such Bidder's will be returned. Bid security with Bids which are not competitive will be returned within seven days after the Bid opening.

7. Contract Time.

7.1 The numbers of days within which, or the dates by which, the Work is to be substantially completed and also completed and ready for final payment (the Contract Time) are set forth in the Bid Form and the Agreement.

8. Liquidated Damages.

This section is deleted

9. Substitute or "Or-Equal" Items.

9.1 The Contract, if awarded, will be on the basis of materials and equipment described in the Drawings or specified in the Specifications without consideration of possible substitute or “or-equal” items. Whenever it is indicated on the Drawings or specified in the Specifications that a substitute or “or-equal” item of material or equipment may be furnished or used by Contractor if acceptable to Engineer, application for such acceptance will not be considered by Engineer until after the Effective Date of the Agreement. The procedure for submission of any such application by Contractor and consideration by Engineer is set forth in Paragraphs 6.7.1, 6.7.2 and 6.7.3 of the General Conditions and may be supplemented in the General Requirements.

10. Subcontractors, Suppliers and Others.

10.1 If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers and other persons and organizations (including those who are to furnish the principal items of material and equipment) to be submitted to Owner in advance of the specified date prior to the Effective Date of the Agreement, the apparent Successful Bidder, and any other Bidder so requested, shall within seven days after the Bid opening, submit to Owner a list of all such Subcontractors, Suppliers and other persons and organizations proposed for those portions of the Work for which such identification is required. Such list shall be accompanied by an experience statement with pertinent information regarding similar projects and other such evidence of qualification for each such Subcontractor, Supplier, person or organization if requested by the Owner. If Owner or Engineer after due investigation has reasonable objection to any proposed Subcontractor, Supplier, or other person or organization, either may before the Notice of Award is given request the apparent Successful Bidder to submit an acceptable substitute in which case the apparent Successful Bidder shall submit an acceptable substitute, that Bidder’s Bid price will be increased (or decreased) by the difference in cost occasioned by such substitution and Owner may consider such price adjustment in evaluating Bids and making the contract award.

10.2 This section is deleted.

10.3 No Contractor shall be required to employ any Subcontractor, Supplier, other person or organization against whom Contractor has reasonable objection.

11. Bid Form.

11.1 The Bid Form is included with the Bidding Documents.

11.2 Bids by corporations must be executed in the corporate name by the president or a vice-president (or other corporate officer accompanied by evidence of authority to sign) and the corporate seal must be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation must be shown below the signature.

11.3 Bids by partnerships must be executed in the partnership name and signed by a partner, whose title must appear under the signature and the official address of the partnership must be shown below the signature.

11.4 All names must be typed or printed below the signature.

11.5 The Bid shall contain an acknowledgment of receipt of all Addenda (the numbers of which must be filled in on the Bid Form).

11.6 The address and telephone number for communications regarding the Bid must be shown.

12. Submission of Bids.

12.1 Bids shall be submitted at the time and place indicated in the Advertisement or Invitation to Bid and shall be enclosed in an opaque sealed envelope, marked with the Project title (and, if applicable, the designated portion of the Project for which the Bid is submitted) and name and address of the Bidder and accompanied by Bid security and other required documents. If the Bid is sent through the mail or other delivery system the sealed envelope shall be enclosed in a separate envelope with the notation "**BID ENCLOSED**" on the face of it.

13. Modification and Withdrawal of Bids.

13.1 Bids may be modified or withdrawn by an appropriate document duly executed (in the manner that a Bid must be executed) and delivered to the place where Bids are to be submitted at any time prior to the opening of Bids.

13.2 If, within twenty-four hours after the Bids are opened, any Bidder files a duly signed, written notice with Owner and promptly thereafter demonstrates to the reasonable satisfaction of Owner that there was a material and substantial mistake in the preparation of its Bid, that Bidder may withdraw its Bid and the Bid security will be returned. Thereafter, that Bidder will be disqualified from further bidding on the Work to be provided under the Contract Documents.

14. Opening of Bids.

14.1 Bids will be opened and (unless obviously non-responsive) read aloud publicly. An abstract of the amounts of the base Bids and major alternates (if any) will be made available to Bidders after the opening of Bids.

15. Bids to Remain Subject to Acceptance.

15.1 All Bids will remain subject to acceptance for forty-five days after the day of the Bid opening, but Owner may, in its sole discretion, release any Bid and return the Bid security prior to that date.

16. Award of Contract.

16.1 Owner reserves the right to reject any and all Bids, to waive any and all informalities not involving price, time or changes in the Work and to negotiate contract terms with the Successful Bidder, and the right to disregard all non-conforming, non-responsive, unbalanced or conditional Bids. Also, Owner reserves the right to reject the Bid of any Bidder if Owner believes that it would not be in the best interest of the Project to make an award to that Bidder, whether because the Bid is not responsive or the Bidder is unqualified or of doubtful financial ability or fails to meet any other pertinent standard or criteria established by Owner. Discrepancies in the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

16.2 In evaluating Bids, Owner will consider the qualifications of the Bidders, whether or not the Bids comply with the prescribed requirements, and such alternates, unit prices and other data, as may be requested in the Bid Form or prior to the Notice of Award.

16.3 Owner may consider the qualifications and experience of Subcontractors, Suppliers, and other persons and organizations proposed for those portions of the Work as to which the identity of Subcontractors, Suppliers, and other persons and organizations must be submitted as provided in the Supplementary Conditions. Owner also may consider the operating costs, maintenance requirements, performance data and guarantees of major items of materials and equipment proposed for incorporation in the Work when such data is required to be submitted prior to the Notice of Award.

16.4 Owner may conduct such investigation as Owner deems necessary to assist in the evaluation of any Bid and to establish the responsibility, qualifications and financial ability of Bidders, proposed Subcontractors, Suppliers and other persons and organizations to perform and furnish the Work in accordance with the Contract Documents to Owner's satisfaction within the prescribed time.

16.5 If the contract is to be awarded, it will be awarded to the lowest bidder whose evaluation by Owner indicates to Owner that the award will be in the best interests of the Project.

16.6 If the contract is to be awarded, Owner will give the successful Bidder a Notice of Award within thirty days after the day of the Bid opening.

17. Contract Security.

17.1 Paragraph 5.1 of the General Conditions and the Supplementary Conditions set forth Owner's requirements as to performance and payment Bonds. When the Successful Bidder delivers the executed Agreement to Owner, it must be accompanied by the required performance and payment Bonds.

18. Signing of Agreement.

18.1 When Owner gives a Notice of Award to the Successful Bidder, it will be accompanied by the required number of unsigned counterparts of the Agreement with all other written Contract Documents attached. Within fifteen days thereafter, Contractor shall sign and deliver the required number of counterparts of the Agreement and attached documents to Owner with the required Bonds. Within ten days thereafter Owner shall deliver one fully signed counterpart to Contractor. Each counterpart is to be accompanied by a complete set of Drawings with appropriate identification.

SECTION 00300 - BID FORM

TO: Board of Selectmen
Town of Essex
Town Hall
West Avenue
Essex, Connecticut 06426

Gentlemen:

The Bidder, in compliance with your Invitation to Bid, Contract Conditions and Documents for *Essex Elementary School Paving Project, Centerbrook, Connecticut* having examined the Bidding Documents, Contract Conditions and the Contract Documents, and having visited and examined the site of the proposed project, and being familiar with all Conditions relating to the construction, including the availability of materials and labor, hereby proposes to furnish all supervision, labor, materials, equipment, appliances, machinery, tools, appurtenances, supplies, and services as required to complete the work in accordance with the Contract Documents, subject to additions and deductions in accordance with the terms of said Contract Documents, of which this proposal is a part.

1.01. SUMMARY OF WORK

The work includes but is not limited to the following: the grinding/reclaiming of existing pavement, curbing and driveway aprons to the limits shown on the plans, removal of unsuitable material within 12 inches of road surface, establishment of pavement base by grading and compacting reclaimed base to line and grade required for pavement, the compaction of gravel base if unsuitable material is required, the placement of 2 courses (1 ½ inches each) of pavement, the installation of curbing and driveway aprons, as shown on the plan and in accordance with the Contract Documents.

1.02. BID

The project will be bid as a lump sum price, as described below:

The Proposed Base Bid Contract Lump Sum is:

_____ Dollars (words)
(\$ _____) (numbers)
(In case of discrepancy, the amount shown in words will govern)

ADD Alternate: _____

1.03 UNIT PRICES

Unit prices shall be the base cost, installed in place, for computing an extra or credit. The unit prices shall include all equipment, tools, labor, permits, and fees, etc. incidental to the completion of work. If the field conditions warrant a change and a need for any of these items, they will be supplied at the following unit prices. (All unit prices include installation, placement, labor, materials, etc.)

	<u>Unit Price</u>
Bituminous Concrete Binder Course (1 ½ inches)	\$_____ per sq. yd.
Bituminous Concrete Surface Course (1 ½ inches)	\$_____ per sq. yd.
Bituminous Concrete Lip Curbing	\$_____ per ln. ft.
Processed Aggregate Base	\$_____ per cu. yd.
Excavation	\$_____ per cu. yd.
12 inch Compacted Gravel Base	\$_____ per sq. ft.

1.04 PERFORMANCE AND PAYMENT BOND

The undersigned agrees, if he is selected as contractor for the work, to provide to Owner, bonds covering faithful performance of the Contract and payment of obligations arising thereunder, in accordance with requirements of Paragraph 6 of the Instructions to Bidder and Article 5 of the General and Supplementary Conditions.

1.05 CONTRACT AGREEMENT

The undersigned agrees that if he is selected as Contractor for the project, he will execute a contract agreement after presentation by Owner, within fifteen (15) calendar days of receipt, in accordance with the requirements of the Contract Documents and terms of this Bid.

1.06 NOTICE TO PROCEED

The undersigned agrees to commence work on the project after the Notice to Proceed is issued which notice will be given in spring of 2016.

1.07 TIME OF COMPLETION

The undersigned agrees to prosecute said Work expeditiously and with adequate forces and an ample supply of materials to complete work within 60 days of the Notice to Proceed.

1.08 CERTIFICATION

The undersigned hereby certifies that he has read the terms of this commitment set forth herein and is prepared to enter into a Construction Contract Agreement with the Owner on this basis.

Company Name _____

Signature of Bidder _____

Title _____ **Date** _____

SECTION 00400 - CONDITIONS OF THE CONTRACT

PART I - GENERAL CONDITIONS

The General Conditions of the contract are the National Society of Professional Engineers Document (EJCDC C-700, 2007ed), “Standard General Conditions of the Construction Contract”: herein referred to as the General Conditions. Said conditions are attached hereto in printed form.

PART II - SUPPLEMENTARY CONDITIONS

The Supplementary Conditions contain changes, deletions, and additions to the General Conditions. Where any part of the General Condition is modified or voided by the Supplementary Conditions, the unaltered provisions shall remain in effect.

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SECTION 00800 - SUPPLEMENTARY CONDITIONS

**ARTICLE 4 - AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL
CONDITIONS; REFERENCE POINTS**

4.2.1.2 *Physical Conditions:* Add the following:

A topographic survey of the project location is shown in the form of a topographic drawing. There are no other drawings used to show physical conditions of the project site.

ARTICLE 5 - BONDS AND INSURANCE

5.1 *Performance, Payment and Other Bonds:* Add the following:

5.1 Performance and Payment Bonds may also be in the form of Irrevocable Letters of Credit from a bank doing business in the state of Connecticut.

5.4 *CONTRACTOR's Liability Insurance:* Add the following:

Comprehensive General Liability Insurance shall be as follows:

(a) Bodily injury, including: premises and operations, independent contractor's products, including complete operations contractual liability
Occurrence basis: each person \$250,000.
each occurrence \$500,000.

Property damage, including: explosion, collapse and underground work as follows: premises and operations, independent contractor's products including completed operations contractual liability
Occurrence basis: each occurrence \$100,000.

Comprehensive General Liability Insurance (continued):

(b) Comprehensive Automobile Liability for all owned, non-owned, hired automobiles and equipment as follows:
Bodily injury: each person \$250,000.
each occurrence \$1,000,000.
Property Damage: each accident \$100,000.

5.4.1 Workman's Compensation Insurance: With respect to all operations performed for him by subcontractors, the Contractor shall carry Workman's Compensation Insurance in accordance with the requirements of the Laws of the State of Connecticut.

ARTICLE 6 - CONTRACTOR'S RESPONSIBILITIES

Add the following sections:

6.14.3 The following paragraph is taken from the Connecticut General Statutes:
“The wages paid on a hourly basis to any mechanic, laborer or workman employed upon the work herein contracted to be done and the amount of payment or contribution paid or payable on behalf of each such employee to any employee welfare fund, as defined in section (h)...(of 31-53 of the Connecticut General Statutes)... shall be at a rate equal to the rate customary or prevailing for the same work in the same trade or occupation in the town in which such public works project is being constructed. Any contractor who is not obligated by agreement to make payment or contribution on behalf of such employees to any such employee welfare fund shall pay to each employee as part of his wages the amount of payment or contribution for his clarification on each pay day”

6.14.4 *Non - Discrimination:*
The Contractor shall not discriminate against any employee or applicant for employment because of race, creed, color, sex or national origin. The Contractor shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their sex, race, creed, color or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, transfer, recruitment or recruitment advertising, layoff termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship. The Contractor shall post notices setting forth the provisions of this non-discrimination clause.

ARTICLE 11 - CHANGE OF CONTRACT PRICE

11.3.2 *Delete and substitute the following:*
Where the work involved is not covered by unit prices contained in the Contract Documents, by negotiation between Owner and Contractor.

11.3.3 *Delete.*

11.4 *Delete.*

11.5 *Delete.*

11.6 *Delete.*

11.7 *Delete.*

11.8 *Delete.*

ARTICLE 14 - PAYMENTS TO CONTRACTOR AND COMPLETION

14.2 *Add the following:*

Progress payments will be made in an amount equal to 90% of the work satisfactorily completed.

DIVISION 1 - GENERAL REQUIREMENTS

SECTION 01010 - SUMMARY OF THE WORK

1.01 Work Under This Contract

- A. Work to be done under the Contract and in accordance with the Contract Documents consists of performing, installing, furnishing and supplying of all materials equipment, labor and incidentals necessary or convenient for construction of road improvements and obligations imposed upon the Contractor by the Contract Documents.
- B. A brief outline of features of the Work includes, but is not limited to the following as is indicated in the Contract Documents:

The work includes but is not limited to the following: the grinding/reclaiming of existing pavement, curbing and driveway aprons to the limits shown on the plans, removal of unsuitable material within 12 inches of road surface, establishment of pavement base by grading and compacting reclaimed base to line and grade required for pavement, the compaction of gravel base if unsuitable material is required, the placement of 2 courses (1 ½ inches each) of pavement, the installation of curbing and driveway aprons, as shown on the plan and in accordance with the Contract Documents.

SECTION 01200 - PROJECT MEETINGS

1.01 Pre-construction conference

Prior to starting construction, Owner, Contractor and Engineer shall meet at the site for a general exchange of information.

1.02 Progress Meetings

Progress meetings will be called as required

SECTION 01300 - SUBMITTALS

1.01 Survey Data

- A. The Contractor shall furnish all necessary personnel, engineering equipment and supplies, materials and transportation incidental to the accurate and satisfactory completion of the work. There shall be no direct payment for construction staking, but the cost thereof shall be considered as included in the general cost of the work.

SECTION 01500 - TEMPORARY FACILITIES AND CONTROLS

1.01 Temporary water supply and sanitary facilities

- A. Contractor shall furnish, maintain and operate temporary water supply and temporary sanitary facilities as required for the use of all trades during the time of construction.
- B. There shall be no direct payment for furnishing, maintaining and operating temporary facilities and controls, but the cost thereof shall be considered as included in the general costs of the work.

1.02 Temporary dust control

The control of dust will be required by the application of water or calcium chloride.

1.03 Temporary access

Access to the site is by means of existing public roadways. The Contractor shall exercise care in his own operations over existing public roads. Damage resulting to public roads as a result of the Contractor's operations shall be repaired by the Contractor at his own expense to the satisfaction of the Engineer and the appropriate public agency.

1.04 Temporary barricades, signs and lights

The Contractor shall furnish, erect, maintain, move, adjust, and relocate signs, barricades, and flashing warning lights, all in conformance with the Contract Documents. Contractor shall keep the signs, barricades, and flashing lights in proper position, clean and legible at all times. The sign, barricades, and lights shall be removed by the Contractor prior to the projects acceptance. Should the Contractor fail to perform any of the work required under this section, the Owner may perform, or arrange for others to perform such work. In such cases, the Owner will deduct from money due or to become due the Contractor all expenses connected therewith. The Contractor shall install and maintain temporary measures to provide for at least one lane of vehicular traffic throughout the duration of the project. There shall be no direct payment for maintenance and protection of traffic, but the cost thereof shall be considered as included in the general cost of the work.

DIVISION 2 - SITE WORK

SECTION 02210 - PAVEMENT GRINDING AND SITE GRADING

Part 1 - General

1.01 Description

The work includes but is not limited to the following: the grinding/reclaiming of existing pavement, curbing and driveway aprons to the limits shown on the plans, removal of unsuitable material within 12 inches of road surface, establishment of pavement base by grading and compacting reclaimed base to line and grade required for pavement, the compaction of gravel base if unsuitable material is required, the placement of 2 courses (1 ½ inches each) of pavement, the installation of curbing and driveway aprons, as shown on the plan and in accordance with the Contract Documents.

1. Grind/reclaim existing pavement, curbing, driveways and street entrances to the limits indicated on the plans. Grinding shall be to a minimum depth of the existing pavement depth plus 6 inches.
2. Regrade and compact road base to establish a finished grade (with new pavement) that will maintain existing drainage patterns.
3. Excess material shall be removed from the site by the contractor to the Town facility on Dump Road. Cost of removal shall be included in the Lump Sum.
4. If unsuitable road base is encountered, it shall be removed as directed and replaced with compacted processed aggregate base.

1.02 Quality Assurance

A Codes and Standards

1. Comply with the State Building Code.
2. Comply with AASHTO for materials for embankments and subgrades.
3. Comply with State Highway Specifications Form 816 for earthwork, rock, topsoil, unsuitable excavation, and roadway formation, except as modified herein.
4. Comply with the regulations of the Town of Essex.
5. Comply with the above where applicable.

SECTION 02210 - PAVEMENT GRINDING AND SITE GRADING (continued)

Part 2 - Materials

2.01 Definitions

Note: All items defined may not be encountered on this project.

- A. Topsoil: That layer of earth approximately 6 inches in depth which supports growth.
- B. Cover Material: This material shall have a textural range of sandy clay, sandy clay loam, sandy loam, loamy sand, clay loam, or silty loam in accordance with the National Cooperative Soil Survey as may be amended from time to time by the US Soil Conservation Service.
- C. Ditch Excavation in Rock: Rock in definite ledge formation (and boulders 3 cubic yards or more in volume), and including all rock excavation necessary for the construction of drainage ditches, paved leak-off's and paved ditches.
- D. Borrow: Material in excess of excavation necessary to bring the embankment to grade. Refer to Section 02232 - Gravel Fill.
- E. Embankment: Formation of the fill areas shown on the Drawings using borrow, and all materials excavated on the project except unsuitable materials.
- F. In Place Measure: When, as a result of plan revisions, increases or decreases result in any item of work (Ref. Section 00300 - Bid Form, 1.04 - Unit Prices), the quantity shall be based on engineering measurement of the item as it exists in place on the project within the payment lines shown on the section. In addition, In Place Measure shall be used to determine the quantities for those items in the "Unit Price" portion of the contract. Other types of measurement commonly encountered, such as truck measure, pit measure or weight of volume by slips shall not be used on this project.
- G. Mass Excavation in Rock: Rock in definite ledge formation (and boulders 3 cubic yards or more in volume), and including all rock excavation necessary for grading to the slope lines and depths indicated on the Drawings.
- H. Trench or Structure Excavation in Rock: Rock in definite ledge formation (and boulders 3 cubic yards or more in volume), and including all rock excavation necessary for the installation of pipe culverts, endwalls, catch basins, drop inlets, manholes, underdrains and outlets, sewers, service pipes.

SECTION 02210 - PAVEMENT GRINDING AND SITE GRADING (continued)

- I. Trench or Structure Excavation - Earth: All materials, other than water or “Trench or Structure Excavation in Rock”
- J. Structural Backfill or Pervious Structural Backfill: The furnishing, placing, and compaction of pervious material, described in Section 02233 - Pervious Structural Backfill, adjacent to structures.

Part 3 - Execution

3.01 Excavation

- A. Carry out the work described in Part 1 (item 1.01).
- B. The topography, profiles and field measurements shall be the base for all quantity measurements if required to determine increases and/or decreases resulting from plan changes directed by the Engineer.
- C. Provide Engineer with timely notice as work progresses so that quantity measurements can be made for payment.

SECTION 02230 - PROCESSED AGGREGATE BASE

Part 1 - General

1.01 Description

- A. Processed aggregate base shall be placed on the prepared subgrade as a foundation for pavement..

1.02 Quality Assurance

- A. Codes and Standards
 - 1. Comply with the State Building Code.
 - 2. Comply with AASHTO for materials for embankments and subgrades.
 - 3. Comply with State Highway Specifications Form 814 for earthwork, rock, topsoil, unsuitable excavation, except as modified herein.
 - 4. Comply with the regulations of the Town of Essex.
 - 5. Comply with the above where applicable.

SECTION 02230 - PROCESSED AGGREGATE BASE (continued)

Part 2 - Materials

Processed Aggregate Base - The materials for this work shall conform to the following requirements: coarse and fine aggregates shall be combined and mixed by approved methods so that the resulting material shall conform to the following gradation requirements:

SQUARE MESH SIEVES	PERCENT PASSING BY WEIGHT
PASS 2 1/4"	100
PASS 2"	95 - 100
PASS 3/4"	50 - 75
PASS 1/4"	25 - 40
PASS #40	5 - 20
PASS #100	2 - 12

Part 3 - Execution

- A. Prior to placing gravel, the subgrade shall be thoroughly compacted with a 10 ton roller true to lines and grades given.
- B. Place gravel in two 6 inch layers and compact each layer with a 10 ton roller.
- C. Bring surface to required line and grade.

SECTION 02500 - STORM DRAINAGE (if required)

Section 1 - General

1.01 Description

- A. Install the storm drainage system as shown on the drawings.

1.02 Quality Assurance

A. Codes and Standards

1. Comply with the State Building Code.
2. Comply with AASHTO excavation for footings.
3. Comply with State of Connecticut Department of Transportation "Standard Specifications for Roads, Bridges and Incidental Construction" Form 816.
4. Comply with regulations of the Town of Essex.
5. Comply with the above where applicable.

Part 2 - Materials

1. Smooth interior, corrugated exterior, high-density polyethylene pipe (CPP):ASTM D3350
2. Drop inlets, manholes, catch basins: Connecticut Highway Department Specifications or as per requirements on drawings, if indicated.

Part 3 - Execution

A. Prior to laying pipe perform the following:

1. Remove existing pipes, if necessary, and excavate trench to required depth.
2. Uniformly grade bottom of trench throughout to attain firm bearing for the pipe.
3. In rock, excavate 6 inches below bottom of pipe; backfill with porous structure backfill, compact and shape.
4. In unsuitable material, undercut as directed and backfill as above.

SECTION 02500 - STORM DRAINAGE (continued)

- B. Lay all pipe true to lines and grades on drawings. The use of laser alignment equipment to set line and grade by the Contractor will not be permitted.
- C. Perforated underdrains shall be installed with hoes down.
- D. Underdrains shall be backfilled to a depth of 13 inches over the pipe with screened gravel or stone meeting the following gradation:

SCREED GRAVEL	
SQUARE MESH SIEVE SIZE	% PASSING
5/8"	100
1/2"	90-100
3/8"	30-100
#4	0-80
#8	0-35
#100	0-2

- E. Catch basins and manholes shall conform to C.H.D. specifications.
Use precast tops and bottoms.

SECTION 02610 - PAVED AREAS

Part 1 - General

1.01 Description

- A. Paved surfaces shall be bituminous concrete as indicated on the plans.
Pavement shall be placed on the prepared subgrade.

1.02 Quality Assurance

- A. Codes and Standards
 1. Comply with the State Building Code.
 2. Comply with AASHTO excavation for footings.
 3. Comply with the State of Connecticut Department of Transportation
"Standard Specifications for Roads, Bridges and Incidental Construction"
Form 816.
 4. Comply with the regulations of the Town of Essex, CT.
 5. Comply with the above where applicable.

Part 2 - Materials

- A. Bituminous Concrete: Comply with below:

SECTION 02610 - PAVED AREAS (continued)

1. Binder Course: Use materials outlined in Form 816 “Mixture Class 1”, (Article M.04.03).
2. Surface Course: Use materials outlined in Form 816 “Mixture Class 2”, (Article M.04.03).

B. Processed Aggregate Base: Refer to Section 02230 - Processed Aggregate Base.

Part 3 - Execution

A Bituminous Concrete Pavement:

1. Comply with Form 816 Section 4.06. Construct to line and grades on the plan and as directed in 2 courses, 1 1/2” binder course and 1 1/2” surface course after compaction. Do not start pavement until subbase is approved by Engineer.

**PARKING LOT PAVING
ESSEX ELEMENTARY SCHOOL
CENTERBROOK, CONNECTICUT**

AGREEMENT BETWEEN OWNER AND CONTRACTOR

Page 1 of 5

THIS AGREEMENT made as of the ___ day of ____ in the year 2012,
by and between the Town of Essex, Connecticut, (hereinafter called Owner),
and _____ (hereinafter called Contractor).

WITNESS THAT Owner and Contractor in consideration of the mutual covenants
hereinafter set forth, agree as follows:

ARTICLE 1: WORK - The Contractor shall perform all Work as specified or indicated
in the Contract Documents for the completion of the Project generally
described as follows:

A brief outline of features of the Work includes, but is not limited to the
following as is indicated in the Contract Documents:

The work includes but is not limited to the following: the grinding/reclaiming
of existing pavement, curbing and driveway aprons to the limits shown on the
plans, removal of unsuitable material within 12 inches of road surface,
establishment of pavement base by grading and compacting reclaimed base to
line and grade required for pavement, the compaction of gravel base if
unsuitable material is required, the placement of 2 courses (1 ½ inches each) of
pavement, the installation of curbing and driveway aprons, as shown on the
plan and in accordance with the Contract Documents.

ARTICLE 2: ENGINEER - The Project has been designed by Doane-Collins Engineering
Associates, LLC, Centerbrook, Connecticut, who will act as Engineer in
connection with the completion of the Project in accordance with the Contract
Documents.

ARTICLE 3: CONTRACT TIME - The Work will begin upon receipt of the Notice to
Proceed (summer of 2012) and be completed within 60 days.

**PARKING LOT PAVING
ESSEX ELEMENTARY SCHOOL
CENTERBROOK, CONNECTICUT**

AGREEMENT BETWEEN OWNER AND CONTRACTOR

Page 2 of 5

ARTICLE 4: CONTRACT PRICE - Owner shall pay Contractor for performance of the Work in accordance with the Contract Documents in current funds. Work includes but is not limited to the following:

The Proposed Lump Sum Bid is:

_____ Dollars (word)
_____ (numbers)
(In case of discrepancy, the amount shown in words will govern)

Additional Provisions Portion of the Contract:

1. Additions or deletions from the Work shall be made in accordance with the provisions outlined in Article 11 of the General Conditions as modified.
2. All of the below listed items do not necessarily appear on the Contract Drawings. However, in the event field conditions warrant a change and a need for any of these items, they will be supplied at the following prices:

List of Unit Prices Referred to in Article 11.3.1 of the General Conditions

	<u>Unit Price</u>
Bituminous Concrete Binder Course (1 ½ inches)	\$ _____ per sq. yd.
Bituminous Concrete Surface Course (1 ½ inches)	\$ _____ per sq. yd.
Bituminous Concrete Lip Curbing	\$ _____ per ln. ft.
Processed Aggregate Base	\$ _____ per cu. yd.
Excavation	\$ _____ per cu. yd.
12 inch Compacted Gravel Base	\$ _____ per sq. ft.

**PARKING LOT PAVING
ESSEX ELEMENTARY SCHOOL
CENTERBROOK, CONNECTICUT**

AGREEMENT BETWEEN OWNER AND CONTRACTOR

Page 3 of 5

ARTICLE 5: APPLICATIONS FOR PAYMENT - The Contractor shall submit

Applications for Payment in accordance with Article 14 of the General Conditions. Applications for Payment will be reviewed by the Engineer as provided in the General Conditions.

ARTICLE 6: PROGRESS AND FINAL PAYMENTS - The Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment as approved by the Engineer, monthly, as provided below. All progress payments will be on the basis of the progress of the Work measured by the schedule of values provided for in paragraph 14.1 of the General Conditions.

- 6.1 Prior to Substantial Completion, progress payments will be in an amount equal to 90% of the Work satisfactorily completed.
- 6.2 Upon Substantial Completion, Owner shall pay an amount sufficient to increase total payments to Contractor to 98% of the Contract Price, less any retainers as Engineer shall determine in accordance with paragraph 14.7 of the General Conditions.
- 6.3 Upon final completion of the Work and settlement of all claims, Owner shall pay the remainder of the Contract Price.

ARTICLE 7: CONTRACT DOCUMENTS - This contract consists of the following component parts, all of which are as fully a part of this contract as is herein set out verbatim, or if not attached, as is hereunto attached:

- 7.1 This Agreement
- 7.2 Exhibits to this Agreement
- 7.3 Contractor's Bid and Bonds
- 7.4 Notice of Award
- 7.5 Instructions to Bidders, NSPE Document (EJCDC C-700, 2007ed)

**PARKING LOT PAVING
ESSEX ELEMENTARY SCHOOL
CENTERBROOK, CONNECTICUT**

AGREEMENT BETWEEN OWNER AND CONTRACTOR

Page 4 of 5

- 7.6 General Conditions, NSPE Document (EJCDC C-700, 2007ed)
- 7.7 Supplementary Conditions
- 7.8 Specifications
- 7.9 **“PROPOSED ROADWAY IMPROVEMENTS, INGHAM HILL ROAD ALIGNMENT, STATION 0+00 TO 16+50, PREPARED FOR THE TOWN OF ESSEX, ESSEX, CT”**. Scale: As Shown, Dated: 6/19/12, Sheets: 1 of 2 and 2 of 2, Prepared by Doane-Collins Engineering Associates, LLC, Centerbrook, CT 06409
- 7.10 Addenda
- 7.11 Any modifications, including Change Orders, duly delivered after execution of this Agreement

ARTICLE 8: MISCELLANEOUS

- 8.1 Terms used in this Agreement which are defined in Article 1 of the General Conditions shall have the meanings indicated in the General Conditions.
- 8.2 Neither Owner nor Contractor shall, without the prior written consent of the other, assign or sublet in whole or in part his interest under any of the Contract Documents; and, specifically, Contractor shall not assign any moneys due to become due without the prior written consent of Owner.
- 8.3 Owner and Contractor each binds himself, his partners, successors, assigns and legal representatives to the other party hereto in respect to all covenants, agreements and obligations contained in the Contracting Documents.
- 8.4 The Contract Documents constitute the entire agreement between Owner and Contractor and may only be altered, amended or repealed by a duly written instrument.

**PARKING LOT PAVING
ESSEX ELEMENTARY SCHOOL
CENTERBROOK, CONNECTICUT**

AGREEMENT BETWEEN OWNER AND CONTRACTOR

Page 5 of 5

ARTICLE 9: OTHER PROVISIONS

IN WITNESS WHEREOF, the parties hereto have executed this Agreement the day and year first above written.

Owner: Town of Essex **Contractor:** _____

By _____ **By** _____

By _____ **By** _____
Corporate Seal *Corporate Seal*

Attest _____ **Attest** _____