

**TOWN OF RIDGEFIELD  
Office of the Town Engineer**

**RIDGEFIELD, CONNECTICUT**

***SIDEWALK IMPROVEMENT PROGRAM***

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***School Sidewalk Replacement and Curbing  
Improvements***

***Ridgefield High School, 700 North Salem Road***

**May, 2017**

**DETAILED SPECIFICATIONS:**

**BIDDING REQUIREMENTS  
CONDITIONS OF AGREEMENT  
CONSTRUCTION SPECIFICATIONS  
PLANS**



**RUDY MARCONI  
FIRST SELECTMAN**

**CHARLES R. FISHER, P.E., L.S.  
TOWN ENGINEER**

**Bid No. 2017-28**

# LEGAL NOTICE

## INVITATION to BID

The **Town of Ridgefield** invites all interested parties to submit sealed bids on the following:

**BID DUE DATE:** November 3, 2017

**BID DUE TIME:** 11:00 AM

**BID ITEM:** Energy Conservation & Building  
Maintenance, School Sidewalk  
Replacement and Curbing Improvements,  
Ridgefield High School, 700 North Salem  
Road, Ridgefield CT

**BID NUMBER:** 2017-28

Terms and conditions as well as the description of items being bid are stated in the specifications. **Specifications may be obtained at the following address:**

**Town of Ridgefield  
Kenneth Sandberg  
400 Main Street  
Ridgefield, CT. 06877  
203 - 431 – 2720**

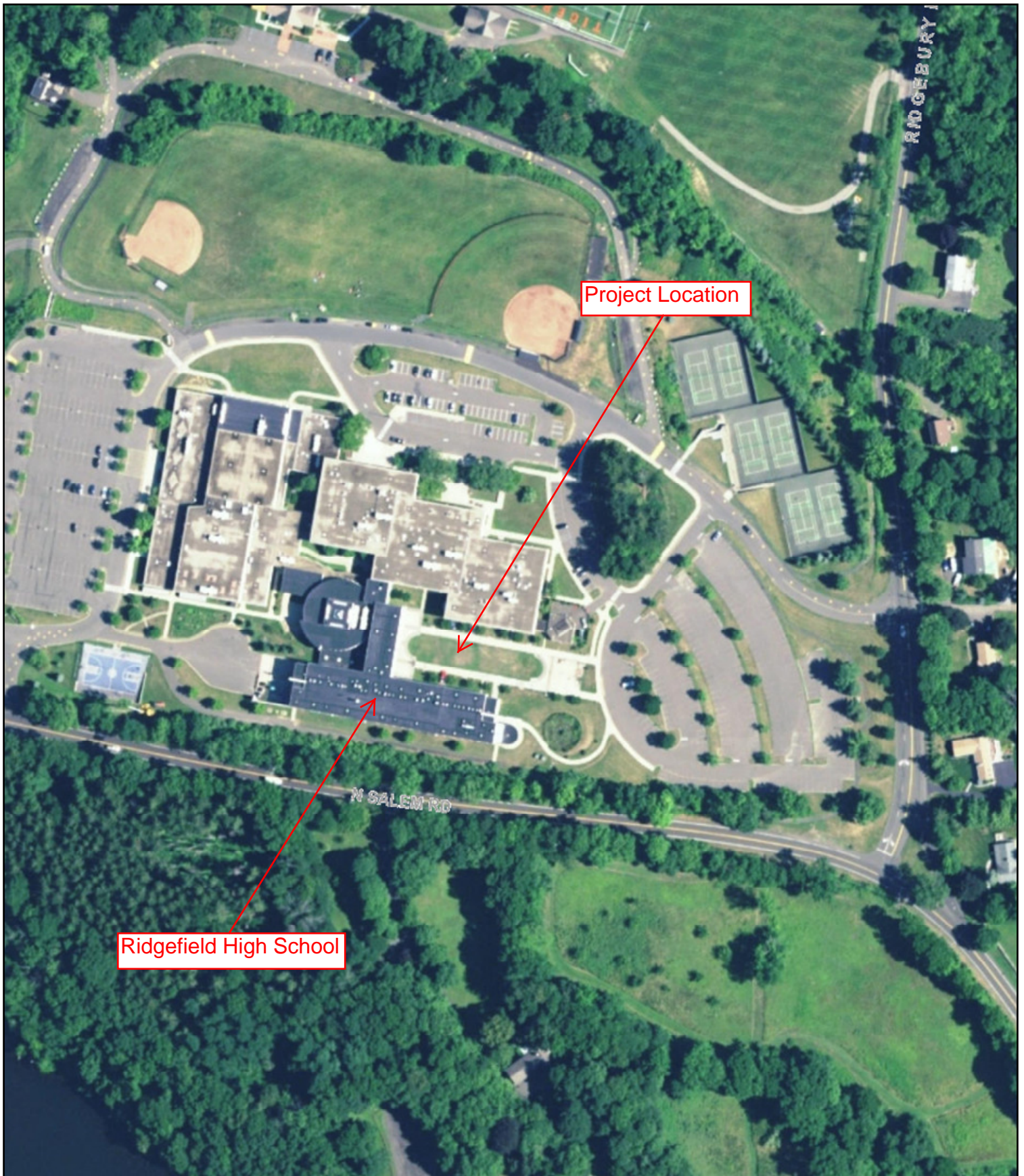
The return bid envelope must be marked and addressed to the following:

**TOWN OF RIDGEFIELD  
DIRECTOR OF PURCHASING  
BID NUMBER: 2017-28  
400 MAIN STREET  
RIDGEFIELD, CT. 06877**

Bids must be received no later than the date and time stated above at the Purchasing Director's office on the second floor. **For further information,** please call **Kenneth Sandberg** at (203) 431-2720 or E-Mail at **[purchasing@ridgefieldct.org](mailto:purchasing@ridgefieldct.org)**

**Bid Documents available at [www.ridgefieldct.org](http://www.ridgefieldct.org) in the Purchasing section under Departments**

**Results may be viewed at [www.ridgefieldct.org](http://www.ridgefieldct.org) in the Purchasing Section under Departments after the bid opening.**



The information depicted on this map is for planning purposes only. It is not adequate for legal boundary definition, regulatory interpretation, or parcel-level analyses.

**Location Plan, Ridgefield  
High School, 700 North  
Salem Road**

5/30/2017 1:18:14 PM



1:2400  
1"=200'



# TOWN OF RIDGEFIELD CONNECTICUT

## BOARD OF SELECTMEN

### INSTRUCTIONS TO BIDDERS

1. Submit proposals in a sealed envelope plainly marked with bid number to identify this particular proposal.
2. Withdrawals of or amendments to bids received later than the time and date specified for bid opening will not be considered.
3. The Board of Selectmen of the Town of Ridgefield reserves the right to accept or reject any or all options, bids or proposals; to waive any technicality in any bid or part thereof, and to accept any bid deemed to be in the best interest of the Town of Ridgefield, Connecticut.
4. Bidders may be present at the opening of bids.
5. Bids may be held by the Town of Ridgefield for a period not to exceed sixty (60) days from the opening of bids for the purpose of reviewing the bids and investigating the qualifications of bidders prior to the awarding of the contract.
6. Insurance requirements, if any, must be submitted with the bid. This includes any Hold Harmless requirements as well as Certificates of Insurance for the full amounts specified. **Unauthorized changes** to these forms, i.e. adding, striking out and/or changing any words, language or limits **will cause the bidder to be disqualified**.

**Please Note:** Certificates of Insurance, if required, MUST name the Town of Ridgefield as **Additional Insured**. Failure to do so will mean disqualification from the Bid. There will no exceptions.

7. **Permits:** It is the Contractor's responsibility to obtain any necessary permits prior to the start of construction. All work shall be completed in compliance with the latest edition of the prevailing fire prevention and building codes in effect in the State of Connecticut, the latest edition of the State of Connecticut Department of Transportation Standard Specifications for Roads, Bridges and Incidental Construction, Town of

Ridgefield Road Construction Standards, or as set forth in these specifications.

8. **Emergency Work:** The Contractor shall file with the Engineer a telephone number of a person authorized by him who may be contacted regarding emergency work at the job site that may be required during non-working hours for reasons of public safety. The person shall be readily available and have full authority to deal with any emergency that may occur.
9. **Sales Tax:** In accordance with the provisions of Special Act No. 77-98, as amended, and Section 12-412(a) of the Connecticut General Statutes, sales of tangible personal property and services to the Town are not subject to the Connecticut Sales and Use Tax, and such tax shall not be included as part of the bid.
12. **Contractor's Qualification Statement:** The Contractor's Qualification Statement must be filled out as part of the bid package and the experience and references listed therein will be one to the determining factors in the awarding of the bid.
13. **Hold Harmless Agreement:** In order for the bid to be considered valid, the Contractor **must** sign the enclosed hold harmless agreement. Bids submitted without the signed hold harmless agreement will be rejected.
14. **Prevailing Wage Rates:** This project **is** subject to the State of Connecticut's prevailing wage rates.
15. **SBE/MBE and Contract Compliance Requirements:** This project **is not** subject to the State of Connecticut SBE/MBE set aside and contract compliance requirements.
16. **Time of Completion:** All work must be completed within **60 days** from receipt of the notice to proceed.
17. **Bonds:** A Payment and Performance bond in the full amount of the Proposal will be required of the successful bidder. The bond must be in the form of a surety bond of a type satisfactory to the Town of Ridgefield. All sureties must be listed on the most recent IRS Circular 570. The bond shall be delivered to the Office of the Town Engineer before commencing the work.
18. **Bid Bond:** A Bid Bond is not required.
19. **Site Visits:** While schools are in session, prospective bidders wishing to view the work areas must check in with the respective schools and present proper identification. Contractors must check

**in on a daily basis. Failure to do so will result in a security violation and be subject to arrest.**

20. **Project Locations:** The project is located at Ridgefield High School, 700 North Salem Road, Ridgefield, Connecticut
21. **Bid Submissions:** The following items shall be submitted for a bid to be considered complete:
  - (a) Executed proposal sheets, P-1 to P-5
  - (b) Executed Hold Harmless Agreement
  - (c) Certificates of Insurance in conformance to Item 6 above
  - (d) Contractor's List of Subcontractor's (if none, state none)
  - (e) Contractor's Qualification Statement

**Supplemental Information for Bidders and General Contract Provisions****1. PREPARATION OF PROPOSALS**

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

Each bid must be submitted in a sealed envelope bearing on the outside the name of the Bidder, post office address, bid number, and name of the project for which the bid is submitted. If forwarded by mail, the sealed envelope containing the bid must be enclosed in another envelope addressed to: The Purchasing Director, Town Hall, 400 Main Street, Ridgefield, CT 06877.

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

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

**2. SUBMISSION OF PROPOSALS**

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

**3. INCURRING COSTS**

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

**4. FAMILIARITY WITH THE WORK**

Each bidder is considered to have examined the work to fully acquaint him with the exact existing conditions relating to the work and has fully informed himself as to the work involved and the difficulties and restrictions attending the performance of this bid. The submission of a bid will be considered as conclusive evidence that the bidder has made such examination.

**5. CONSIDERATION OF PRIOR SERVICE**

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

**6. ADDENDA AND INTERPRETATIONS & ALTERNATE PROPOSALS**

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

If any person contemplating submitting a proposal is in doubt as to the true meaning of any part of these specifications, he may submit a written request for an interpretation to the Purchasing Director. No interpretations as to the meaning of the plans, specifications or other Contract Documents will be made to any bidder orally. Every request for such interpretation should be in writing addressed to the Town of Ridgefield, Purchasing Director, 400 Main Street, Ridgefield, Connecticut 06877, and to be given consideration, must be received at least five (5) days prior to the date fixed for the opening of Bids. Any and all such interpretations and any supplementary instructions will be in the form of written Addenda to the Specifications which, if issued, will be mailed by Registered Mail with Return Receipt Requested to all prospective bidders at the respective addresses furnished for such purposes, not later than three (3) days prior to the date fixed for the opening of bids. Failure of any bidder to receive any such Addendum or interpretations shall not relieve any bidder from any obligations under his bid as submitted. All Addenda so issued shall become part of the Contract Documents. Oral explanations will not be binding on the Town.

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

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

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

named or described if:

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

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

#### **7. QUOTATION LIMITATION**

Bidders shall offer only **ONE ITEM AND PRICE** for each line item bid. If an or-equal item is to be bid, the bidder is to select the brand and model that meets or exceeds the specified item, and submit his bid for that item.

#### **8. ESTIMATE OF WORK**

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

#### **9. SAMPLES**

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

#### **10. WITHDRAWAL OF BID**

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

#### **11. POWER OF ATTORNEY**

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

## **12. SUBCONTRACTORS**

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

## **13. QUALIFICATION OF BIDDER**

In determining the qualifications of a bidder, the Town may consider his record in the performance of any contracts for similar work into which he may have previously entered; and the Town expressly reserves the right to reject the bid of such bidder if such record discloses that such bidder, in the opinion of the Town, has not properly performed such contracts or has habitually, and without just cause, neglected the payment of bills or has otherwise disregarded his obligations to subcontractors, suppliers, state or local codes, men or employees of subcontractors. The Town may make such investigation as he deems necessary to determine the ability of the bidder to perform the work and the bidder shall furnish to the Town all such information and data for this purpose as the Town may request. The Town reserves the right to reject any bid if the evidence submitted by or the investigation of such bidder fails to satisfy the Town that such bidder is properly qualified, or that such bidder misrepresented material facts in the bid documents.

## **14. DISQUALIFICATION OF BIDDERS**

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

## **15. DELIVERY**

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

delay. Time of delivery shall be stated as the number of calendar days following receipt of the Purchase Order by the Bidder to receipt of the goods or services by the Town of Ridgefield. Prices quoted must include delivery to the Town of Ridgefield as specified on the Purchase Order. No charges will be allowed for parking, crating, freight, express or cartage unless specifically stated and included in this bid.

Time of delivery may be considered in the award.

## **16. PAYMENT**

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

Time, in connection with any discount offered, will be computed from the date of delivery to the Town or from the date a correct invoice is received by the Town's Finance Department, if the latter date is later than the date of delivery. Prices will be considered as **NET**, if no cash or payment discount is shown.

The successful bidder shall submit invoices to the following address:

Town of Ridgefield  
Office of the Town Engineer  
66 Prospect Street  
Ridgefield, CT 06877

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

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

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

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

payment being made.

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

**17. SALES TAX**

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

**18. CARE AND PROTECTION OF PROPERTY**

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

**19. COMPLIANCE WITH FEDERAL, STATE AND LOCAL CODES**

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

**20. AWARD**

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

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

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

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

The Town of Ridgefield reserves the right:

- a. To award bids received on the basis of individual items, or groups of items, or on the entire list of items.
- b. To reject any or all bids, or any part thereof.

- c. To waive any informality in the bids.
- d. To accept the bid that is in the best interest of the Town of Ridgefield. The Purchasing Agent's decision shall be final.

**21. INSURANCE**

Insurance requirements are detailed under the attached "Insurance Requirements."

**22. GUARANTEE**

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

**23. PERMITS**

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

**24. NONDISCRIMINATION IN EMPLOYMENT**

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

**25. MECHANICS LIEN WAIVERS**

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

Purchasing Department, Town of Ridgefield, 400 Main Street, Ridgefield, CT.  
06877  
203-431-2720 & purchasing@ridgefieldct.org

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## **APPENDIX - INSURANCE REQUIREMENTS**

Each bidder shall carry and maintain the following insurance coverage during the period of the contract : The Certificate of Insurance for the Limits of Liability stated below should be submitted with your bid to the Purchasing Department at Town Hall. **Bidders may not perform any work until all insurance requirements are met.**

1. **Comprehensive General Liability Insurance** as will protect him, the Town, and any subcontractor performing work covered by this Contract, from claims for damages for personal injury, including accidental or wrongful death, as well as claims for property damages, 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. Liability insurance shall include premises and operations, products, contractual, owners, and contractors protective. The minimum amounts of such insurance shall be as follows:
  - Bodily Injury Liability and Property Damage Liability:  
**\$1,000,000 each occurrence.**
  - **The Town shall be named as an Additional Insured**  
This **MUST** be stated explicitly on the Certificate or you will be **disqualified**
2. **Worker's Compensation Insurance and Employer's Liability** for all of his employees, employed at the site and in case any work is sublet, the Contractor shall require the subcontractor similarly to provide Workmen's Compensation Insurance for all employees of the later unless such employees are covered by the protection afforded by the Contractor.
  - Worker's Compensation and Employer Liability:  
Statutory Limits
3. **Comprehensive Auto Liability Insurance:**
  - **Bodily Injury Insurance and Property Damage Insurance** covering the operation of all Motor Vehicles owned, hired and/or non-owned by the Contractor, or used by the Contractor in the Prosecution of the work under the Contract, shall be in the minimum of **\$1,000,000 each occurrence.**

All policies relating to this Contract shall be so written so that the Town shall be notified of cancellation or change at least thirty (30) days prior to the effective date for each policy and type of coverage except for nonpayment which shall be ten (10 ) days prior to the cancellation. Renewal certificate covering the renewal of all policies expiring during the life of the Contract shall be filed with the Town not less than ten (10) days before the expiration of such policies. Failure to do so will result in work stoppage and possible contract cancellation.

**HOLD HARMLESS AGREEMENT**

The undersigned covenants and agrees to and shall at all times indemnify, protect and save harmless the Town of Ridgefield from and against all costs or expenses resulting from any and all losses, damages, detriments, claims, demands, cost and charges including attorneys fees the Town of Ridgefield may directly or indirectly suffer, sustain or be subjected to by reason or on account of the work to be performed pursuant to this Contract or any activities in connection with said Contract whether such losses and damages be suffered or sustained by the Town of Ridgefield directly or by its employees, licenses or invitees or be suffered or sustained by other persons or corporations who may seek to hold the Town of Ridgefield liable therefore.

The Contractor shall comply with the Provisions of the Immigration Reform and Control Act of 1986 effective and enforceable as of June 6, 1987 which Act makes unlawful the hiring for employment or subcontracting individuals failing to provide documentation of legal eligibility to work in the United States. The Contractor shall hold the Town of Ridgefield harmless for the failure of the Contractor to comply with the provisions of said Act.

IN WITNESS WHEREOF, the parties hereto have set their hand and seal this on the \_\_\_\_\_ day of \_\_\_\_\_

Signed, Seated and Delivered in the  
Presence of:

Signed:

\_\_\_\_\_  
Notary Public

**CONTRACTOR'S QUALIFICATION STATEMENT**

List below references for similar projects, including all information requested. This page must be completed and submitted with the bid.

1. Client: \_\_\_\_\_

Project Address: \_\_\_\_\_

Approximate Value: \_\_\_\_\_ Date: Started \_\_\_\_\_ Completed \_\_\_\_\_

Contact: Name \_\_\_\_\_ Telephone \_\_\_\_\_

2. Client: \_\_\_\_\_

Project Address: \_\_\_\_\_

Approximate Value: \_\_\_\_\_ Date: Started \_\_\_\_\_ Completed \_\_\_\_\_

Contact: Name \_\_\_\_\_ Telephone \_\_\_\_\_

3. Client: \_\_\_\_\_

Project Address: \_\_\_\_\_

Approximate Value: \_\_\_\_\_ Date: Started \_\_\_\_\_ Completed \_\_\_\_\_

Contact: Name \_\_\_\_\_ Telephone \_\_\_\_\_

4. Client: \_\_\_\_\_

Project Address: \_\_\_\_\_

Approximate Value: \_\_\_\_\_ Date: Started \_\_\_\_\_ Completed \_\_\_\_\_

Contact: Name \_\_\_\_\_ Telephone \_\_\_\_\_

Company: \_\_\_\_\_ Bid Title: \_\_\_\_\_

Street: \_\_\_\_\_ Bid No.: \_\_\_\_\_

City, State: \_\_\_\_\_ Telephone No.: \_\_\_\_\_

**CONTRACTOR'S LIST OF SUBCONTRACTORS**

List below the subcontractors intended to be utilized for this project. This page must be completed and submitted with the bid.

1. Firm: \_\_\_\_\_

Firm's Address: \_\_\_\_\_

Contact: Name \_\_\_\_\_ Telephone \_\_\_\_\_

Type of Work to be Performed: \_\_\_\_\_

2. Firm: \_\_\_\_\_

Firm's Address: \_\_\_\_\_

Contact: Name \_\_\_\_\_ Telephone \_\_\_\_\_

Type of Work to be Performed: \_\_\_\_\_

3. Firm: \_\_\_\_\_

Firm's Address: \_\_\_\_\_

Contact: Name \_\_\_\_\_ Telephone \_\_\_\_\_

Type of Work to be Performed: \_\_\_\_\_

4. Firm: \_\_\_\_\_

Firm's Address: \_\_\_\_\_

Contact: Name \_\_\_\_\_ Telephone \_\_\_\_\_

Type of Work to be Performed: \_\_\_\_\_

Company: \_\_\_\_\_

Bid Title: \_\_\_\_\_

Street: \_\_\_\_\_

Bid No.: \_\_\_\_\_

City, State: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

CONTRACTOR'S LIST OF SUBTRACTORS

Q-2

# THE AMERICAN INSTITUTE OF ARCHITECTS



AIA Document A312

## Performance Bond

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

CONTRACTOR (Name and Address):

SURETY (Name and Principal Place of Business):

OWNER (Name and Address):

### CONSTRUCTION CONTRACT

Date:

Amount:

Description (Name and Location):

### BOND

Date (Not earlier than Construction Contract Date):

Amount:

Modifications to this Bond:

☐ None

☐ See Page 3

CONTRACTOR AS PRINCIPAL

Company:

(Corporate Seal)

SURETY

Company:

(Corporate Seal)

Signature: \_\_\_\_\_

Name and Title:

Signature: \_\_\_\_\_

Name and Title:

(Any additional signatures appear on page 3)

(FOR INFORMATION ONLY—Name, Address and Telephone)

AGENT or BROKER:

OWNER'S REPRESENTATIVE (Architect, Engineer or other party):

1 The Contractor and the Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

2 If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except to participate in conferences as provided in Subparagraph 3.1.

3 If there is no Owner Default, the Surety's obligation under this Bond shall arise after:

3.1 The Owner has notified the Contractor and the Surety at its address described in Paragraph 10 below that the Owner is considering declaring a Contractor Default and has requested and attempted to arrange a conference with the Contractor and the Surety to be held not later than fifteen days after receipt of such notice to discuss methods of performing the Construction Contract. If the Owner, the Contractor and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default; and

3.2 The Owner has declared a Contractor Default and formally terminated the Contractor's right to complete the contract. Such Contractor Default shall not be declared earlier than twenty days after the Contractor and the Surety have received notice as provided in Subparagraph 3.1; and

3.3 The Owner has agreed to pay the Balance of the Contract Price to the Surety in accordance with the terms of the Construction Contract or to a contractor selected to perform the Construction Contract in accordance with the terms of the contract with the Owner.

4 When the Owner has satisfied the conditions of Paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

4.1 Arrange for the Contractor, with consent of the Owner, to perform and complete the Construction Contract; or

4.2 Undertake to perform and complete the Construction Contract itself, through its agents or through independent contractors; or

4.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and the contractor selected with the Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Paragraph 6 in excess of the Balance of the Contract Price incurred by the Owner resulting from the Contractor's default; or

4.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances:

.1 After investigation, determine the amount for

which it may be liable to the Owner and, as soon as practicable after the amount is determined, tender payment therefor to the Owner; or

.2 Deny liability in whole or in part and notify the Owner citing reasons therefor.

5 If the Surety does not proceed as provided in Paragraph 4 with reasonable promptness, the Surety shall be deemed to be in default on this Bond fifteen days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Subparagraph 4.4, and the Owner refuses the payment tendered or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.

6 After the Owner has terminated the Contractor's right to complete the Construction Contract, and if the Surety elects to act under Subparagraph 4.1, 4.2, or 4.3 above, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. To the limit of the amount of this Bond, but subject to commitment by the Owner of the Balance of the Contract Price to mitigation of costs and damages on the Construction Contract, the Surety is obligated without duplication for:

6.1 The responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;

6.2 Additional legal, design professional and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 4; and

6.3 Liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

7 The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators or successors.

8 The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

9 Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two years after Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation avail-

able to sureties as a defense in the jurisdiction of the suit shall be applicable.

**10** Notice to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the signature page.

**11** When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

## **12 DEFINITIONS**

**12.1** Balance of the Contract Price: The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made, including allowance to the Con-

tractor of any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.

**12.2** Construction Contract: The agreement between the Owner and the Contractor identified on the signature page, including all Contract Documents and changes thereto.

**12.3** Contractor Default: Failure of the Contractor, which has neither been remedied nor waived, to perform or otherwise to comply with the terms of the Construction Contract.

**12.4** Owner Default: Failure of the Owner, which has neither been remedied nor waived, to pay the Contractor as required by the Construction Contract or to perform and complete or comply with the other terms thereof.

## **MODIFICATIONS TO THIS BOND ARE AS FOLLOWS:**

(Space is provided below for additional signatures of added parties, other than those appearing on the cover page.)

CONTRACTOR AS PRINCIPAL

Company: \_\_\_\_\_ (Corporate Seal)

SURETY

Company: \_\_\_\_\_ (Corporate Seal)

Signature: \_\_\_\_\_  
Name and Title: \_\_\_\_\_  
Address: \_\_\_\_\_

Signature: \_\_\_\_\_  
Name and Title: \_\_\_\_\_  
Address: \_\_\_\_\_

# THE AMERICAN INSTITUTE OF ARCHITECTS



AIA Document A312

## Payment Bond

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

CONTRACTOR (Name and Address):

SURETY (Name and Principal Place of Business):

OWNER (Name and Address):

### CONSTRUCTION CONTRACT

Date:

Amount:

Description (Name and Location):

### BOND

Date (Not earlier than Construction Contract Date):

Amount:

Modifications to this Bond:

☐ None

☐ See Page 6

CONTRACTOR AS PRINCIPAL

Company:

(Corporate Seal)

SURETY

Company:

(Corporate Seal)

Signature: \_\_\_\_\_

Name and Title:

Signature: \_\_\_\_\_

Name and Title:

(Any additional signatures appear on page 6)

(FOR INFORMATION ONLY—Name, Address and Telephone)

AGENT or BROKER:

OWNER'S REPRESENTATIVE (Architect, Engineer or other party):

1 The Contractor and the Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner to pay for labor, materials and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference.

2 With respect to the Owner, this obligation shall be null and void if the Contractor:

2.1 Promptly makes payment, directly or indirectly, for all sums due Claimants, and

2.2 Defends, indemnifies and holds harmless the Owner from claims, demands, liens or suits by any person or entity whose claim, demand, lien or suit is for the payment for labor, materials or equipment furnished for use in the performance of the Construction Contract, provided the Owner has promptly notified the Contractor and the Surety (at the address described in Paragraph 12) of any claims, demands, liens or suits and tendered defense of such claims, demands, liens or suits to the Contractor and the Surety, and provided there is no Owner Default.

3 With respect to Claimants, this obligation shall be null and void if the Contractor promptly makes payment, directly or indirectly, for all sums due.

4 The Surety shall have no obligation to Claimants under this Bond until:

4.1 Claimants who are employed by or have a direct contract with the Contractor have given notice to the Surety (at the address described in Paragraph 12) and sent a copy, or notice thereof, to the Owner, stating that a claim is being made under this Bond and, with substantial accuracy, the amount of the claim.

4.2 Claimants who do not have a direct contract with the Contractor:

- 1 Have furnished written notice to the Contractor and sent a copy, or notice thereof, to the Owner, within 90 days after having last performed labor or last furnished materials or equipment included in the claim stating, with substantial accuracy, the amount of the claim and the name of the party to whom the materials were furnished or supplied or for whom the labor was done or performed; and
- 2 Have either received a rejection in whole or in part from the Contractor, or not received within 30 days of furnishing the above notice any communication from the Contractor by which the Contractor has indicated the claim will be paid directly or indirectly; and
- 3 Not having been paid within the above 30 days, have sent a written notice to the Surety (at the address described in Paragraph 12) and sent a copy, or notice thereof, to the Owner, stating that a claim is being made under this Bond and enclosing a copy of the previous written notice furnished to the Contractor.

5 If a notice required by Paragraph 4 is given by the Owner to the Contractor or to the Surety, that is sufficient compliance.

6 When the Claimant has satisfied the conditions of Paragraph 4, the Surety shall promptly and at the Surety's expense take the following actions:

6.1 Send an answer to the Claimant, with a copy to the Owner, within 45 days after receipt of the claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed.

6.2 Pay or arrange for payment of any undisputed amounts.

7 The Surety's total obligation shall not exceed the amount of this Bond, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.

8 Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any Construction Performance Bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfy obligations of the Contractor and the Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.

9 The Surety shall not be liable to the Owner, Claimants or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligations to make payments to, give notices on behalf of, or otherwise have obligations to Claimants under this Bond.

10 The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

11 No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the location in which the work or part of the work is located or after the expiration of one year from the date (1) on which the Claimant gave the notice required by Subparagraph 4.1 or Clause 4.2.3, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

12 Notice to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the signature page. Actual receipt of notice by Surety, the Owner or the Contractor, however accomplished, shall be sufficient compliance as of the date received at the address shown on the signature page.

13 When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. The intent is that this

Bond shall be construed as a statutory bond and not as a common law bond.

14 Upon request by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor shall promptly furnish a copy of this Bond or shall permit a copy to be made.

## 15 DEFINITIONS

15.1 Claimant: An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials or equipment for use in the performance of the Contract. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental equipment used in the

Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials or equipment were furnished.

15.2 Construction Contract: The agreement between the Owner and the Contractor identified on the signature page, including all Contract Documents and changes thereto.

15.3 Owner Default: Failure of the Owner, which has neither been remedied nor waived, to pay the Contractor as required by the Construction Contract or to perform and complete or comply with the other terms thereof.

## MODIFICATIONS TO THIS BOND ARE AS FOLLOWS:

:

(Space is provided below for additional signatures of added parties, other than those appearing on the cover page.)

CONTRACTOR AS PRINCIPAL

Company:

(Corporate Seal)

SURETY

Company:

(Corporate Seal)

Signature: \_\_\_\_\_

Name and Title:

Address:

Signature: \_\_\_\_\_

Name and Title:

Address:

**PROPOSAL**

Proposal of: \_\_\_\_\_  
to furnish and deliver all materials and to do and perform all works in accordance with the Contract Documents for **School Sidewalk and Curbing Improvements**, the plans and specifications prepared by Charles R. Fisher, P.E.,L.S., Town Engineer, the works being situated within the Town of Ridgefield, Connecticut.

The undersigned bidder has carefully examined the Contract Documents referred to in the "Information for Bidders", and also the site of the work, and will provide all necessary labor, machinery, tools, apparatus, and other means of construction, and do all the work and furnish all material called for by the Contract Documents in the manner prescribed therein and in said Contract, and in accordance with the requirements of the Engineer under them for the following sums:

**Estimated Quantities**

<b><u>Item</u></b>	<b><u>Estimated Quantity</u></b>	<b><u>Computed Total</u></b>
<b><u>Item 1A: Concrete Curbing</u></b> the unit price of:		
_____dollars		
and _____cents		
(\$ _____ ) per LF	100 LF	\$ _____
<b><u>Item 1B: Additional For Monolithic Concrete Curbing</u></b> the unit price of:		
_____dollars		
and _____cents		
(\$ _____ ) per LF	60 LF	\$ _____
<b><u>Item 1C: 5" Standard Concrete Sidewalk</u></b> the unit price of:		
_____dollars		
and _____cents		
(\$ _____ ) per SF	4,000 SF	\$ _____
<b><u>Item 1D: 8" Heavy-Duty Concrete Sidewalk</u></b> the unit price of:		
_____dollars		
and _____cents		
(\$ _____ ) per SF	1,300 SF	\$ _____

**Item 1E: Concrete Handicap Ramp**

the unit price of:

\_\_\_\_\_dollars

and \_\_\_\_\_cents

(\$\_\_\_\_\_ ) per SF 125 SF \$\_\_\_\_\_

**Item 1F: Additional Payment For Tinted Concrete Sidewalk**

the unit price of:

\_\_\_\_\_dollars

and \_\_\_\_\_cents

(\$\_\_\_\_\_ ) per SF 1,200 SF \$\_\_\_\_\_

**Item 1G: Partial Depth Concrete Repair**

the unit price of:

\_\_\_\_\_dollars

and \_\_\_\_\_cents

(\$\_\_\_\_\_ ) per CF 60 CF \$\_\_\_\_\_

**Item 2A: Bit. Conc. Pavement**

the unit price of:

\_\_\_\_\_dollars

and \_\_\_\_\_cents

(\$\_\_\_\_\_ ) per SY 10 SY \$\_\_\_\_\_

**Item 3: Lawn Restoration**

the unit price of:

\_\_\_\_\_dollars

and \_\_\_\_\_cents

(\$\_\_\_\_\_ ) SY 650 SY \$\_\_\_\_\_

**Grand Total, Items 1A through Item 3 Inclusive**

\$\_\_\_\_\_

For purposed of comparison, the computed Grand Total, All Items will serve as the basis of comparison of all bids. The computed total is not an official part of this proposal.

The Town reserves the right to eliminate any item or portion of the work that it deems to be in the best interest of the Town.

All costs of excavation of unsuitable material as shown on the plans or specified in the field are to be carried under each specific item.

Any inconsistencies between the plans and specifications shall be reported to the Town Engineer. The Town Engineer shall make the final decision on any inconsistencies and their intent.

This is a unit price bid. As noted within these specifications, the Town of Ridgefield does not guarantee the estimated quantities shown for each item within the proposal. By submitting a bid, the bidder acknowledges that the project's final quantities may vary from the estimated quantities shown on the proposal sheets and that final payment will be made based on the project's final measured quantities, not the estimated quantities.

**The Undersigned Also Agrees as Follows:**

**First:** To do any extra work not covered by the above schedule of prices, which may be ordered by the Engineer and to accept as full compensation therefor such prices as may be agreed upon in writing by the Engineer and the Contractor in accordance with Article 5, "General Conditions".

**Second:** Within **seven (7)** days from the date of the "Notice to Proceed", to execute the Contract and to furnish to the Owner a satisfactory performance and payment bond in the sum of the full amount of the contract.

Dated: \_\_\_\_\_

Signature of Bidder: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Business Address: \_\_\_\_\_

## **GENERAL CONDITIONS**

### **1. CONTRACTOR'S UNDERSTANDING:**

It is understood and agreed that the Contractor has, by careful examination, satisfied himself as to the nature and location of the work, the conformation of the ground, the character quality and quantity of materials to be encountered, the character of equipment and facilities needed preliminary to and during the prosecution of the work, the general and local conditions, and all other matters which can in any way affect the work under this Contract. No verbal agreement or conversation with any officer, agent or employee of the Owner, either before or after the execution of this contract, shall affect or modify any of the terms or obligations herein contained.

### **2. DEFINITIONS:**

**OWNER:**

The word "Owner" when it appears in the Contract Documents shall mean The Town of Ridgefield, Connecticut.

**ENGINEER:**

The word "Engineer" when it appears in the contract Documents shall mean: Charles R. Fisher, P.E., L.S. Town Engineer, or his specifically designated Agent.

**CONTRACTOR:**

The word "Contractor" when it appears in the Contract Documents shall mean the party to whom the Contract has been awarded.

### **3. MATERIALS, APPLIANCES AND EMPLOYEES:**

Unless otherwise stipulated, the Contractor shall provide and pay for all materials, labor, water, tools, equipment, light, power, transportation and other facilities necessary for the execution and completion of the work. Unless otherwise specified, all materials shall be new and both workmanship and materials shall be of good quality. The Contractor shall, if required, furnish satisfactory evidence as to the kind and quality of materials.

The Contractor shall at all times endorse strict discipline and good order among his employees, and shall not employ on the work any unfit person or any one not skilled in the work assigned to him.

**4. PROTECTION OF WORK AND PROPERTY:**

The Contractor shall continuously maintain adequate protection of all his work from damage and shall protect the Owner's property from injury or loss arising in connection with this Contract. He shall make good any such damage, injury or loss, except such as may be directly due to errors in the Contract Documents or caused by agents or employees of the Owner. He shall adequately protect adjacent property as provided by law and the Contract Documents. He shall provide and maintain all passageways, guard fences, lights and other facilities for protection required by public authority or local conditions.

In an emergency affecting the safety of life or of the work or of adjoining property, the Contractor, without special instruction or authorization from the Engineer, is hereby permitted to act at his discretion, to prevent such threatened loss or injury, and he shall so act, without appeal, if so instructed or authorized. Any compensation claimed by the Contractor on account of emergency work, shall be determined by agreement or arbitration.

**5. CHANGES IN THE WORK:**

The Owner, without invalidating the Contract, may order extra work or make changes by altering, adding to or deducting from the work, the Contract Sum being adjusted accordingly. All such work shall be executed under the conditions of the original Contract except that any claim for extension of time caused thereby shall be adjusted at the time of ordering such change.

In giving instructions, the Engineer shall have authority to make minor changes in the work, not involving extra cost, and not inconsistent with the purposes of the work, but otherwise, except in an emergency, endangering life or property, no extra work or change shall be made unless in pursuance of a written order by the Engineer, and no claim for an addition to the Contract Sum shall be valid unless so ordered.

The value of any such extra work or change shall be determined in one or more of the following ways:

- (a) By estimate and acceptance in a lump sum.
- (b) By unit prices named in the Contract subsequently agreed upon.
- (c) By cost and percentage or by cost and a fixed fee.

If none of the above methods is agreed upon, the Contractor, provided he receives an order as above, shall proceed with the work. In such case, and also under case (c), he shall keep and present in such form as the Engineer may direct, a correct account of the net cost of labor and materials, together with

vouchers. In any case, the Engineer shall certify to the amount, including reasonable allowance for overhead and profit, due to the Contractor. Pending final determination of value, payments on account of changes shall be made on the Engineer's estimate.

**6. CLAIMS FOR EXTRA COST:**

If the Contractor claims that any instructions by drawings or otherwise involve extra cost under this Contract, he shall give the Engineer written notice thereof within a reasonable time after the receipt of such instructions and in any event before proceeding to execute the work, except in emergency endangering life or property, and the procedure shall then be as provided for changes in the work. No such claim shall be valid unless so made.

**7. SUSPENSION OF WORK:**

The Owner may at any time suspend the work, or any part thereof by giving 24 hours notice to the Contractor in writing. The work shall be resumed by the Contractor within ten (10) days after the date fixed in the written notice from the owner to the Contractor to do so. The Owner shall reimburse the Contractor for expense incurred by the Contractor in connection with the work under this contract as a result of such suspension.

**8. THE OWNER'S RIGHT TO DO WORK:**

If the Contractor should neglect to prosecute the work properly or fail to perform any provision of this Contract, the Owner, after three days written notice to the Contractor may, without prejudice to any other remedy he may have, make good such deficiencies and may deduct the cost thereof from the payment then or thereafter due the Contractor.

**9. PAYMENTS WITHHELD:**

The Owner may withhold or, on account of subsequently discovered evidence, nullify the whole or part of any certificate to such extent as may be necessary to protect him from loss on account of the following:

- (a) Defective work not remedied.
- (b) Claims filed or reasonable evidence indicating probable filing of claims.
- (c) Failure of the Contractor to make payments properly to subcontractors or for material or labor.
- (d) A reasonable doubt that the Contract can be completed for the balance then unpaid.
- (e) Damage to another Contractor.

When the above grounds are removed, payment shall be made for amount withheld because of them.

**10. CONTRACTOR'S LIABILITY INSURANCE:**

The Contractor shall maintain such insurance as will protect him from claims under workmen's compensation acts and from any other claims for damages for personal injury, including death, which may arise from operations under this Contract, whether such operations be by himself or by any subcontractor or anyone directly or indirectly employed by either of them. Certificates of such insurance shall be filed with the engineer, if he so requires and shall be subject to his approval for adequacy of protection.

**11. INDEMNITY:**

The Contractor shall indemnify and save harmless the Owner from and against all losses and all claims, demands, payments, suits, actions, recoveries and judgments of every nature and description brought or recovered against him, by reason of any act or omission of the said Contractor, his agents or employees, in the execution of the work or in the guarding of it.

The Contractor shall, and is hereby authorized to maintain and pay for such insurance, issued in the name of the Owner, as will protect the Owner from his contingent liability under this Contract, and the Owner's right to force against the Contractor any provision of this article shall be contingent upon the full compliance by the Owner with the terms of such insurance policy or policies, a copy of which shall be deposited with the Owner.

**12. DAMAGES:**

Any claim for damage arising under this Contract shall be made in writing to the party liable within a reasonable time of the first observance of such damage and not later than the time of final payment, except as expressly stipulated otherwise in the case of faulty work or materials, and shall be adjusted by agreement or arbitration.

**13. ASSIGNMENT:**

Neither party to the Contract shall assign the Contract or sublet it as a whole without the written consent of the other, nor shall the Contractor assign any moneys due to or to become due to him hereunder, without the previous written consent of the Engineer.

**14. ENGINEER'S STATUS:**

The Engineer shall have general supervision and direction of the work. He has authority to stop the work whenever such stoppage may be necessary to insure the proper execution of the Contract. He shall also have authority to reject all work and materials which do not conform to the Contract, to direct the application of forces to any portion of the work, as in his judgment is required, and to order the force increased or diminished, and to decide questions which arise in the execution of the work.

**15. METHOD OF PAYMENT:**

At the end of each calendar month, the Contractor shall submit to the Engineer a requisition for payment which requisition shall be based upon the actual amount of the work performed during the previous month. The requisition may include materials stored on the site but not installed. The Engineer shall, within ten (10) days, check the requisition against his review of the work which has been done and submit it to the Owner, a written statement as to the validity of the requisition. The Owner shall then pay to the Contractor one **hundred percent (100%)** of the amount stated in the Engineer's report. **No payment shall be made until the Contractor has satisfied all prevailing wage reporting requirements if prevailing wages are a part of this contract.**

**16. FINAL PAYMENT:**

When the Contract has been completed, the Contractor shall notify the Engineer in writing. Upon receipt of this notification, the Engineer shall proceed to make final measurements of the work done under the provisions of this Contract. The Engineer shall then submit to the Owner a written statement setting forth these final measurements and the amount due the Contractor consistent with the unit prices and lump sum bid in the Proposal. The Owner shall within sixty (60) days pay to the Contractor this sum except that he may deduct any moneys which are to be retained under the terms of the Contract for repairs or otherwise.

**Prior to the issuance of the final payment, the Contractor shall submit to the Engineer the attached Project Closeout Documents fully executed and notarized.**

**17. ORDER OF THE WORK:**

The order of the work shall be subject to the approval of the Engineer in all cases. The Contractor may be required to submit a work schedule in writing to the Engineer for his approval.

**18. (OMITTED)****19. PROTECTION TO PUBLIC:**

The Contractor shall conduct the work in such a manner as to offer minimum disturbance to the traveling public. He shall not close off traffic without specific permission of the Engineer and shall provide flagmen if such becomes necessary, in the opinion of the Engineer. Proper barricades, lights, and other protective devices shall be supplied at the Contractor's expense and properly maintained during the entire course of the work.

**20. GUARANTEE:**

The Contractor guarantees that the work to be done under this Contract and the materials furnished by him and used in the construction of the project are free from defects or flaws. The guarantee is for a term of one (1) year from and after the date upon which the final estimate of the Engineer is formally approved by the party of the first part. It is hereby agreed and understood that this guarantee shall not include any repairs made necessary by any cause or causes other than defective materials furnished by or defective work done by the Contractor.

**21. RATE OF PROGRESS AND TIME OF COMPLETION:**

The Contractor shall commence work within seven (7) days after receipt of the Notice to Proceed and, unless an extension of time shall be made in the manner herein provided, shall progress therewith to final completion within ***sixty (60) consecutive calendar days*** after receipt of the Notice to Proceed.

**22. EXTENSION OF TIME:**

The Contractor expressly covenants and agrees that, in undertaking to complete the work within the time specified, he has taken into consideration and made allowance for all of the ordinary delays and hindrances incident to such work, whether growing out of delays in securing materials, workmen, or otherwise. Should the Contractor, however, be substantially delayed in the prosecution and completion of the work by any changes, additions, or omissions therein ordered in writing by the engineer, or by fire, lightning, earthquake, tornado, cyclone, riot, insurrection of war, or by the abandonment of the work by the workmen engaged therein, through no fault of the Contractor, or by the discharge of all or any material number of workmen in consequence of difficulties arising between the Contractor and such workmen, or by the neglect, delay, or default of any other contractor of the town, then the Contractor may, within five (5) days after the occurrence of the delay for which he claims allowance, notify the Engineer in writing, and thereupon, and otherwise, the Contractor shall be allowed such additional time for the completion of the work, as the Engineer in his discretion shall award in writing, and his decision shall be final and conclusive upon the parties. Such additional time shall be the sole and exclusive remedy for any delay claimed by the Contractor.

**23. SALES TAX:**

In accordance with the provisions of Special Act No. 77-98, as amended, and Section 12-412(a) of the Connecticut General Statutes, sales of tangible personal property and services to the Town are not subject to the Connecticut Sales and Use Tax, and such tax shall not be included as part of the bid.

**24. Termination of the Contract:**

If the Owner fails to make payment thereon for a period of 30 days, the Contractor may, upon seven additional days written notice to the Owner,

terminate the Contract and recover from the Owner payment for work executed and for proven loss with respect to materials, equipment tools, and construction equipment and machinery, including reasonable overhead, profit and damages applicable to the project.

If the contractor defaults or persistently fails or neglects to carry out the work in accordance with the Contract Documents or fails to perform a provision of the Contract, the Owner, after seven days written notice to the Contractor and without prejudice to any other remedy the Owner may have, may make good such deficiencies and may deduct the cost thereof, including compensation for the Engineer's services and expenses made necessary thereby, from the payment then or thereafter due the Contractor. Alternatively, at the Owner's option, and upon certification by the Engineer that sufficient cause exists to justify such action, the Owner may terminate the Contract and take possession of the site and of all materials, equipment, tools, and construction equipment and machinery thereon owned by the Contractor and may finish the Work by whatever method the Owner may deem expedient. If the unpaid balance of the Contract Sum exceeds costs of finishing the Work, including compensation for the Engineer's services and expenses made necessary thereby, such excess shall be paid to the Contractor, but if such costs exceed such unpaid balance, the Contractor shall pay the difference to the Owner.

## **SPECIAL CONDITIONS**

### **1. Contract Documents and Working Drawings:**

The work is shown on the attached appendices, if any, or the accompanying Contract Drawings. Such additional working drawings as are required because of changes or to provide greater detail will be provided by the Engineer.

### **2. Planimeter:**

The use of the planimeter shall be considered satisfactory for estimating quantities where geometric and analytic methods would be comparatively laborious.

### **3. Soil and Groundwater Conditions:**

The Town assumes no responsibility whatsoever with respect to ascertaining for the Contractor such facts concerning physical characteristics at the site of the project. The Contractor agrees that he will make no claim for and has no right to additional payment or extension of time for completion of the work, or any other concession because of any interpretations or misunderstanding on his part of this Contract, or because of any failure on his part to fully acquaint himself with all conditions relating to the work.

### **4. Existing Structures:**

All known surface structures immediately adjacent to the work, are shown on the Plans. This information is shown for the convenience of the contractor in accordance with the best information available, but is not guaranteed to be correct or complete. Underground structures in the path of the project are **not** shown. The Contractor shall explore the route ahead of trenching and shall uncover all known obstructing pipes sufficiently to determine their location. Necessary changes in location may be made by the Engineer to avoid unanticipated obstruction.

The Contractor shall, at his own expense, sustain in their places and protect from direct or indirect injury all utilities, pipes, poles, conduits, walls, buildings, and other structures, utilities, and property in the vicinity of his work. Such sustaining and protecting shall be done carefully by the Contractor and as required by the party owning or controlling the structure. Before proceeding with such work, the Contractor shall satisfy the Engineer that the methods and procedures to be used have been approved by the party owning said structure. The Contractor shall take all risks attending the presence or proximity of pipes, poles, conduits, walls, buildings, wires, or other structures, utilities, and property in the vicinity of his work, and he shall be responsible for all damage and assume all expense for direct or indirect injury caused by his work to any of them or to any person or property by reason of injury to them.

**The Contractor must notify “Call Before You Dig” at 1-800-922-4455 prior to start of construction.**

**5. Dust Control:**

The Contractor shall take all necessary precautions to prevent and abate nuisance caused by dust arising from his operation, by the application of water spray.

**6. Sedimentation and Erosion Control:**

The Contractor shall control sedimentation and erosion in accordance with the publication entitled, “Erosion and Sedimentation Control Handbook,” latest edition, U. S. Department of Agriculture, Soil Conservation Service, Storrs, Connecticut, and as approved by the Engineer.

**7. Payment for Miscellaneous Work:**

No direct or separate payment will be made for furnishing and providing miscellaneous temporary works, plant and services, including Contractor’s office, sanitary requirements, water supply, power, tools, equipment, lighting, telephone systems, store houses, store yards, safety devices, and watchmen, or other items specified under these special conditions. Compensation for all such services and materials shall be considered as having been included in the prices stipulated for the Items of the Contract.

**8. Clean-up of Site:**

During the progress of the work, the Contractor shall keep the site in a generally neat condition. Lunch papers, bottles, lumber cut-offs, drinking cups, and like rubbish shall be removed from the site daily. The work shall be cleaned up as the various portions of the project are completed.

Upon completion of the work and before acceptance and final payment will be made, the Contractor shall, except as otherwise expressly directed or permitted in writing, clean and remove from the site all surplus and discarded materials, rubbish, and temporary structures. He shall restore in an acceptable manner all property, both public and private, which has been damaged during the prosecution of the work, and leave the whole in a neat and presentable condition. He shall also remove all plant, surplus, and waste materials from the site.

**9. Emergency Work:**

The Contractor shall file with the Engineer a telephone number of a person authorized by him who may be contacted regarding emergency work at the job site that may be required during non-working hours for reasons of public safety. The person shall be readily available and have full authority to deal with any emergency that may occur.

**10. Work in Bad Weather:**

During freezing, stormy, or inclement weather, no work shall be done except that which can be done satisfactory and in a manner as to secure first-class construction throughout.

**11. Night, Saturday, and Sunday Work:**

Unless otherwise permitted or stipulated under a State or Town encroachment permit, no work shall be done between the hours of 6:00 p.m. and 7:00 am, nor on Saturday or Sunday, except as necessary for the proper care and protection of the work already performed. If it shall become absolutely necessary to perform work at night or on Saturday or Sunday, the Engineer shall be informed at least twenty-four (24) hours in advance of the beginning of performance or such work. Only such work shall be done at night as can be done satisfactorily and in a first-class manner. Good light and other necessary facilities for performing and inspecting the work shall be provided and maintained at all points where such work is being done.

**12. Explosives and Blasting:**

Explosives for blasting shall be stored, handled, and used in accordance with the laws, ordinances, and regulations of the State of Connecticut, all local regulations, and with such additional regulations as the Engineer may require. Blasting shall be conducted so as not to endanger persons or property and, unless otherwise permitted, shall be covered or otherwise satisfactorily confined. The Contractor shall be responsible and shall make good any damage of whatever nature caused by blasting or accidental explosions. It shall be the Contractor's responsibility to obtain all required permits for blasting.

**13. Traffic Control:**

The Contractor shall maintain traffic during the progress of the work. Barricades, flagmen, uniformed police officers on any other type of traffic control necessary to ensure the safety of the public shall be utilized by the Contractor. All methods of traffic control are subject to the approval of the Chief of Police who may direct other methods to be employed. No direct payment for traffic control will be made other than payment for uniformed police officers **at cost** and only when directed by the Chief of Police or as required as a condition of approval by the State or Town encroachment permit. It is the Contractor's responsibility to schedule all uniformed police officers as may be required. Payment for all traffic control other than uniformed police officers shall be covered under the various items of these specifications.

**14. Material Disposal:**

The Contractor shall be responsible for the disposal of all construction debris generated by the project. The Town cannot accept the disposal of any material at this time.

**17. Wage Rates:**

**This project IS subject to prevailing wage rates.**

**18. Permits:**

It is the Contractor's responsibility to obtain all necessary building or construction permits, including those that may be required from either the Town of Ridgefield or the State of Connecticut, prior to the start of construction. All work shall be completed in compliance with the latest edition of the prevailing fire prevention and building codes in effect in the State of Connecticut or the State of Connecticut department of Transportation Standard Specifications, latest edition, as applicable.

**19. Concrete Testing:**

Concrete testing **is** required.

**20. Materials:**

Materials normally delivered labeled shall be received with manufacturer's original label and instruction, or else shall be subject to rejection. Materials shall be stored under adequately clean and dry condition, and all work shall be preformed according to the best practice of the trades. Manufacturer's specifications and instructions for products specified herein or approved equals, become part of these specifications and all such instructions are to be followed accordingly.

**21. Lines and Grades:**

It is the intent of these plans and specifications to illustrate the approximate location of the proposed sidewalk. It is the Contractor's responsibility to locate in the field the project's location according to the constraints as shown on the plans or listed under these specifications.

**22. Accommodation of Traffic:**

During the progress of the work, all roads shall be kept open for the passage of traffic and pedestrians and shall not be unnecessarily obstructed unless authorized by the authority having jurisdiction over same. Driveways, sidewalks and crossings shall be closed as short a time as possible while pipe is being placed, and passage shall be restored as soon as possible thereafter by properly placed backfill or approved bridging. The Contractor shall take such measures at his own expense as may be necessary to keep the roads open for traffic, and shall give advance notice to the Department of Transportation (D.O.T.), town public works department, local police and state police as required.

Warning signs shall be provided along all roads where work is in progress. The Contractor shall notify and make all arrangements with the D.O.T., town public works department, local police and state police for direction of traffic past the equipment, machinery, or construction operations. Barricades and lights shall be provided to protect traffic. Where trenches have been cut in road shoulders on which traffic may pass at times, warning signs shall be placed at frequent intervals and maintained until the shoulder is safe for travel. All such work and operations shall be in accordance with the requirements of the D.O.T., public works department, local police and state police.

Should the Contractor or his employees neglect to set out and maintain barricades or lights, as required in these Specifications, the Engineer may immediately and without notice, arrange for furnishing, installing and maintaining barricades or lights, and any other precaution deemed necessary. The cost thereof shall be borne by the Contractor and may be deducted from any amount due or to become due to the Contractor under this Contract.

The Contractor shall be held responsible for any damages that may have to be paid as a consequence of the Contractor's failure to protect the public.

**SPECIMEN CONTRACT**

This Agreement made as of the \_\_\_\_\_ day of \_\_\_\_\_  
the year \_\_\_\_\_ by and between the Town of Ridgefield, 400 Main  
Street, Ridgefield, Connecticut, (herein after called the Owner), and  
\_\_\_\_\_, doing business at  
\_\_\_\_\_, (herein after called the  
Contractor).

Witnesseth that the Owner and the Contractor in consideration of the mutual  
covenants herein after set forth, agree as follows:

**Article 1. Work:**

The contractor will perform all work as shown in the Contract Documents for the  
completion of the Project generally described as follows:

**School Sidewalk and Curbing Improvements**

The work to be done consists of the furnishing of all labor, materials, tools, and  
equipment necessary to construct the project as shown on the plans and as  
described in the specifications prepared by Charles R. Fisher, P.E.,L.S. Town  
Engineer .

**Article 2. Engineer:**

Charles R. Fisher, P.E.,L.S., Town Engineer, will act as the Engineer in  
connection with completion of the Project in accordance with the Contract  
Documents.

**Article 3. Contract Time:**

The work shall be completed within **sixty (60) calendar days** after the date which the Contractor is to start the work as provided in the Contract Documents.

**Article 4. Contract Price:**

The Owner will pay the Contractor for performance of the Work and completion of the Project in accordance with the Contract Documents subject to adjustment by modifications as provided therein in current funds as follows:

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**Article 5. Progress and Final Payments:**

The Owner will make progress payments on account of the Contract Price as provided in the General Conditions. Progress and final payments will be on the basis of the Contractor's application for payment as approved by the Engineer.

**Article 6. Contract Documents:**

The Contract Documents which comprise the contract between the Owner and the Contractor are attached hereto and made a part hereof and consist of the following:

- A. This agreement
- B. Exhibits to this Agreement
- C. Contractor's Bid and Bid Bonds
- D. Specifications
- E. Drawings as referenced by the Specifications or attached hereto
- F. Addenda numbers: \_\_\_\_\_
- G. Any modifications, including change orders, duly delivered after execution of this agreement.

**Article 7. Miscellaneous:**

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

In witness whereof, the said parties hereto have caused this instrument to be signed by their respective duly constituted officers, attested, and sealed pursuant to proper resolutions.

Signed and sealed in  
the presence of:

\_\_\_\_\_  
Town of Ridgefield

By \_\_\_\_\_

Date \_\_\_\_\_

\_\_\_\_\_  
Contractor

By \_\_\_\_\_

Date \_\_\_\_\_

Town of Ridgefield  
Office of the Town Engineer

School Sidewalk and Curbing Improvements  
May, 2017

Technical Specifications

**Concrete Sidewalk and Curbing Construction**

**Item I**

**1.1 Work Included:**

Under this item, the Contractor shall furnish all labor, materials, tools, and equipment necessary to prepare the site, remove existing sidewalks, if required, place and grade the gravel bedding, construct new concrete sidewalks, curbing, and all other work necessary to complete the construction of those items.

**1.2 General Requirements:**

In general, all sidewalks shall be constructed or reconstructed by the Contractor in accordance with the current State of Connecticut Department of Transportation (CONNDOT) Standard Specifications, Section 9.21, as amended to date. CONNDOT Specifications shall apply to the materials to be supplied and to construction procedures, except as modified herein.

The Contractor shall construct sidewalks within the grades and limits indicated on the Contract Drawings, or as required by the Contract Documents. The tolerance of the finished top surface shall be plus or minus 1/8 inch for width of walk and each 5-foot length of walk.

Where new or replacement cement concrete sidewalk is to meet existing sidewalk, the existing sidewalk shall be removed back to the first expansion or construction joint.

The finished grade and alignment of sidewalk replacements shall match existing conditions prior to removal, unless otherwise shown on the Drawings.

**1.3 Site Preparation:**

The Contractor shall break up and remove the existing sidewalk where required. The subgrade is to be excavated to a point to accommodate the required thickness of new concrete sidewalk, gravel base, and any grade change as required below finished grade.

The subgrade shall be free from all bumps, depressions, standing water, roots, organic material and all deleterious material. The subgrade shall be graded, leveled and compacted to a smooth surface, parallel to the final surface.

In fill areas, the Contractor is to remove any deleterious material from the subgrade and raise the grade to accommodate both the required new concrete thickness and gravel base. Fill material shall be clean, well graded material free of any organic material or stones greater than three (3) inches. All fill shall be thoroughly compacted with a vibratory compactor.

#### **1.4 Gravel Base:**

The gravel base shall consist of 3/4 inch processed gravel. The material shall be placed to a true line and grade as directed by the Engineer and shall be thoroughly compacted by means of a vibrating compactor.

The gravel base shall be placed not less than six (6) inches in depth and to such a grade that after compaction it shall form a true grade at a depth equivalent to the required new concrete sidewalk thickness below the finish sidewalk grade.

#### **1.5 Forms:**

Sidewalk forms shall be either steel or wood, and shall be equal in depth to the thickness of the sidewalk. Sidewalk forms shall be held firmly in place using steel pins driven into the ground. Prior to the start of each day's concrete placement, the sidewalk forms shall be placed and graded to the proper line and grade.

#### **1.6 Concrete:**

Portland Cement Concrete to be replaced under this item is specified under Appendix A, "Portland Cement Concrete Material Specification." The concrete thickness shall be as shown on the plans. Wire reinforcement is to be furnished and installed at all locations. The wire fabric shall consist of one layer of 6"x6" – W1.4 x W1.4, or as directed in the field or specified on the plans.

#### **1.7 Finishing:**

The surface of the concrete shall be finished with a wood or rubber float or by other approved means (machine). The outside edges of the slab and all transverse joints shall be edged with the proper finishing or edging tool. The finishing shall be accomplished while the concrete is still in a plastic state and the adding of slurry to a hardened surface shall not be permitted.

**1.8 Joints:**

After placing of the concrete, the forms shall be marked in five-foot increments with a joiner tool, or by the removal of a steel plate inserted in the forms, and at every twenty (20) foot interval, expansion joint material shall be placed prior to pouring. This material shall be asphaltic, cork or fiber in nature and shall extend in depth the full thickness of the slab.

**1.9 Curing:**

All finished surfaces shall be covered and kept in a moist state for a period of not less than forty-eight (48) hours after finishing, using a burlap or moisture-barrier material for covering, and for the purpose of concrete curing and dehydration control. The Contractor is to refer to Appendix A, "Portland Cement Concrete" for placement considerations during adverse weather conditions.

All exposed surfaces of new concrete sidewalk shall be treated with "Saltguard" as manufactured by Prosoco as per manufacturer's recommendations.

**1.10 Testing Requirements:**

Testing requirements for concrete are listed under Appendix A, "Portland Cement Concrete." All costs associated with the testing of concrete are to be included for payment under this item.

**1.11 Structure Adjustments:**

Any valve boxes, curb boxes, manhole covers, etc., encountered or to be located in the sidewalk area shall be adjusted so that the cover is flush with the top surface of the sidewalk. All valve boxes, curb boxes, etc., shall be left in such a way that the covers are easily removed and the boxes shall function in the manner in which they were intended. All covers shall be cleaned and restored to their original condition, free from concrete and asphalt.

**1.12 Monolithic Concrete Sidewalk:**

Where directed by the Engineer, or as shown on the plans, the Contractor shall install a monolithic concrete sidewalk. Materials and construction methods shall be as specified herein for concrete sidewalks. In constructing monolithic sidewalks, the Contractor shall saw cut the existing bituminous concrete road pavement to the pay limits as shown on the plans. Road restoration in conjunction with the installation of monolithic concrete sidewalks shall be as shown on the plans and paid for under this item.

**1.13 Detectable Warning Strips:**

Detectable warning strips shall be a prefabricated detectable warning surface tile employing stainless steel construction as shown on the plans. The color shall be approved by the Engineer. Warning strips for new construction shall be set directly in poured concrete according to the plans and the manufacturer's specifications, or as directed by the Engineer. The Contractor shall place 2-25-pound concrete blocks or sandbags on each tile to prevent the tiles from floating after installation in wet concrete. The Contractor is responsible for removing any material splatters or debris

**1.14 Concrete Curbing:**

In general, materials shall be as those specified for concrete sidewalks under this item or Appendix A.

Excavation shall be made to the required grade and the base upon which the curbing is to be set shall be compacted to a firm, even surface. The pavement shall be saw cut and pavement materials, either asphalt or concrete, shall be removed.

The concrete shall contain not less than 5 or more than 7 per cent entrained air at the time the concrete is deposited within the forms. Concrete shall be placed only on a moist base. Concrete shall not be placed on a soft, muddy or frozen base.

Slip form equipment may be used if the resulting product conforms to the plans.

Where slip form equipment of precast concrete curbing is not used, the concrete shall be placed in forms, struck off with a template, compacted by approved means and finished to a smooth, even surface. Vibration will not be required.

The concrete curbing shall be constructed in sections having a uniform length of approximately 10 feet, unless otherwise directed, so arranged that a joint in the curbing shall come opposite a joint in the adjoining concrete pavement slab, if applicable, and be similar to it. The length of these sections shall be separated by an approved method at the time of placing of the concrete.

Forms: Where forms are used, they shall be so constructed that the form for exposed faces may be removed before the concrete has taken final set in order to permit correction of surface irregularities.

Wire Mesh or other type of reinforcing shall be placed as shown on the detail drawings.

All exposed edges shall be chamfered.

All exposed surfaces of new concrete curbing shall be treated with "Saltguard" as manufactured by Prosoco as per manufacturer's recommendations.

#### **1.15 Tinted Concrete:**

Work under this item shall include the use of integral concrete pavement color, pattern, textural surface, dry-shake color hardener, test slabs, and application of a sealant solution. Colors to match existing tinted concrete sidewalks or as specified by the Engineer.

The following materials shall be utilized as manufactured by Scofield, or approved equal. All materials used shall be from the same manufacturer:

- a) Color hardener: Lithochrome Color Hardener.
- b) Color admixture: shall contain colored, water-reducing, coloring agents that are lime proof and UV resistant, and without calcium chloride. The color admixture shall conform to the requirements of ASTM C979 and ASTM C494.
- c) Curing and Sealing Compound: Scofield Cureseal-W (semi-gloss). Curing and sealing compound shall conform to the requirements of ASTM C309 and matching the color admixture manufacturer, for use with integrally colored concrete.
- d) Release Agent: pattern tool manufacturer recommended and compatible with integral color additives.
- e) Dry-shake Colored Hardener: Lithochrome Color Hardener or approved equal. As recommended by the pattern tool manufacturer and of a heavy-duty grade.

The Contractor shall submit for approval shop drawings for all materials to be utilized in the tinting process. A 5' x 5' test slab shall be provided to confirm the color match. The installed concrete shall have a consistent color matching that of the approved test slab. The Contractor shall follow all manufacturer's recommendations.

#### **1.16 Partial Depth Concrete Repair:**

Where shown on the plans or as directed by the Engineer, the Contractor shall complete partial depth concrete repair to existing concrete surfaces. In general, the work shall include the following:

1. Materials, the Contractor shall utilize the following materials as specified within Appendix "A":
  - a) SikaTop 122 PLUS, two-component, polymer-modified, cementitious, trowel-grade mortar plus Sika FerroGard 901 penetration corrosion inhibitor.
  - b) Sika Armatec 110 EpoCem, bonding agent and reinforcement protection.
2. Surface Inspection, the Contractor shall thoroughly inspect the area to be repaired to determine the limits of work. The extent of the repair shall be approved by the Engineer prior to the start of demolition
3. Demolition and Removal of Deteriorated Concrete, the Contractor shall remove all deteriorated concrete by mechanical means. Prior to the start of demolition, the Contractor shall first saw-cut to a depth of 1/2" each area designated to be removed. All material shall be removed and disposed of off-site.
4. Surface Preparation, the Contractor shall prepare the demolished surfaces for patching by sandblasting to remove all loose particles and dust. All mechanical or hydraulic blasting operations shall be performed using techniques approved by the Engineer, taking care to protect all pedestrians, traffic, and adjacent property. The entire concrete surface to be patched shall be dampened and all free water shall be removed from the patch area.
5. Mixing, Placing, and Finishing, the Contractor shall, mix, place, and finish all mortar in strict accordance to the manufacturer's requirements as specified within Appendix "A".

#### **1.17 Pavement Restoration:**

Materials and methods for pavement restoration shall be as specified and paid for under Item 2, Bituminous Concrete Pavement. Pay limits are as shown on the Plans.

#### **1.18 Measurement and Payment:**

In general, payment for work completed under this item shall include all labor, materials, tools, and equipment necessary to complete the various subdivisions of this item as shown on the plans or as described herein. Payment for surface restoration, pavement saw-cutting, and pavement restoration shall be made under the specific items listed in this contract.

Work completed under Item 1A, Concrete Curbing shall be measured as the actual number of lineal feet of concrete curbing installed. Payment shall be made for all work necessary to construct concrete curbing as shown on the drawings and noted within these specifications and shall include, but not be limited to, layout, excavation of existing pavement, subgrade compaction, placement and compaction of the gravel base, and placement of concrete as shown.

Work completed under this item 1B, Additional Payment for Monolithic Concrete Curbing shall be measured as the actual number of lineal feet of monolithic concrete curbing installed measured along the curb line and shall include all extra effort required to supply all labor, materials, tools, and equipment to construct monolithic concrete curbing in addition to that paid for under Item 1D or 1E.

Work completed under item 1C, 5" Standard Concrete Sidewalk shall be measured as the actual number of square feet of concrete sidewalk constructed. Payment shall be made for all labor, materials, tools, and equipment necessary to construct concrete sidewalks including but not limited to site preparation, excavation, backfill, and any other work related to concrete sidewalk construction as shown on the plans or as specified herein.

Work completed under item 1D, 8" Heavy-Duty Concrete Sidewalk shall be measured as the actual number of square feet of concrete sidewalk constructed. Payment shall be made for all labor, materials, tools, and equipment necessary to construct concrete sidewalks including but not limited to site preparation, excavation, backfill, and any other work related to concrete sidewalk construction as shown on the plans or as specified herein.

Work completed under item 1E, Concrete Handicap Ramp shall be measured as the actual number of square feet of concrete handicap ramp constructed. Payment shall be made for all labor, materials, tools, and equipment necessary to construct concrete handicap ramps including but not limited to excavation, backfill, and the installation of detectable warning strips as shown on the plans or as specified herein.

Work completed under this item 1F, Additional Payment for Tinted Concrete Sidewalk shall be measured as the actual number of square feet of tinted concrete sidewalk constructed and shall include payment for all extra effort required to supply all labor, materials, tools, and equipment to tint concrete sidewalk in addition to that paid for under Item 1C.

Work completed under item 1G, Partial Depth Concrete Repair shall be measured as the actual number of cubic feet of partial depth concrete repair completed. Payment shall be made for all labor, materials, tools, and equipment

necessary to complete partial depth concrete repair including but not limited to surface inspection, demolition and material removal, surface preparation, mixing, placing, and finishing patch materials, and any other work related to partial depth concrete repair as shown on the plans or as specified herein.

## **Bituminous Concrete Pavement**

### **Item 2**

#### **2.1. Work Included:**

Work under this item shall include all labor, tools, materials and equipment necessary to construct a Bituminous Pavement Surface within the areas as shown on the plans or as directed by the Engineer. The Bituminous Pavement Surface shall consist of a processed gravel base course and two courses of bituminous concrete pavement of varying thickness as noted on the plans. The Contractor shall also install Machine-Formed Bituminous Concrete Curbing where required.

In general, the work shall include, but not be limited to, the following:

- Prepare and fine grade the sub base for paving.
- Saw cut existing pavement at the interface with the new pavement
- Place, compact, and fine grade the gravel base.
- Tack coat the exposed edges of the existing pavement.
- Place and compact the bituminous concrete surface.
- Install and back up bituminous concrete curbing where required.

#### **2.2. Materials:**

All materials utilized for the completion of the various subdivisions of this item shall conform in all respects to that specified under the applicable sections of the State of Connecticut Department of Transportation Standard Specifications for Roads, Bridges and Incidental Construction, Form 816, latest revision:

Gravel Base	M02.03, gradation "C"
Bituminous Concrete, Base Course	M04.01, class 1
Bituminous Concrete, Wearing Course	M04.01, class 2
Tack Coat	M04
Bituminous Concrete, Curbing	M04, class 3

The Contractor shall present certifications indicating that the materials utilized conform in all respects to the above-mentioned specifications.

#### **2.3. Construction:**

Construction methods shall conform in all respects to that specified under the applicable sections of Form 816, latest revision:

<u>Item</u>	<u>Section</u>
Gravel Base	3.02
Bituminous Concrete	4.06
Bituminous Concrete Curbing	8.15
Striping	12.09

Prior to the placement of the gravel base, the subgrade shall be inspected by the Engineer for suitability. Unsuitable materials found shall be excavated by the Contractor and replaced in compacted 8" lifts with gravel as specified under the materials section of this specification.

#### **2.4. Measurement and Payment:**

Work completed under this item 2A, Bituminous Concrete Pavement, shall be measured as the actual number of square yards of bituminous concrete pavement constructed within the pay limits as shown on the plans. Work completed outside the pay limits shall be at the Contractor's expense. Payment shall be made for all labor, materials, tools, and equipment necessary to complete the work as shown on the plans or specified herein including fine grading of the sub-base, placement of the gravel base, and placement of the bituminous surface.

## **Surface Restoration**

### **Item 3**

#### **3.1 Work Included:**

Under this item, the Contractor shall furnish all labor, materials, tools, and equipment necessary to restore the work site to its original condition.

#### **3.2 Backfilling:**

The sides of all sidewalks shall be backfilled with suitable material as defined below thoroughly compacted and finished flush with the sidewalk so that no hazard is presented to the walking public. All surplus material shall be removed forthwith from the site and the area left in a neat and presentable condition. Backfill material shall be clean, well-graded material, free of any organic material. All newly installed bituminous concrete lip curbing shall be backed up as soon as practical to protect the curbing from damage.

#### **3.3 Placing Topsoil:**

Surfaces, which are to be topsoiled, shall be properly prepared prior to placement of topsoil. All areas shall receive 6 inches of topsoiling. Objectionable material such as sod, roots and stones shall be removed from the topsoil before it is compacted in place. **All topsoil placed under this item is to be raked immediately after it is applied.** Particular care shall be taken to provide a top surface free from stones, roots and materials, which will prevent maintaining a solid growth of grass. The topsoil shall be slightly compacted by rollers, as directed, and shall be hand raked to provide even, smooth surfaces, at the required slopes and grades immediately before seeding.

#### **3.4 Liming and Fertilizing:**

The Contractor shall apply lime and fertilizer as required to promote a good stand of grass.

#### **3.5 Seed:**

Grass seed shall be of the previous year's crop. It shall meet current standards of the Association of Official Seed Analysts. The seed mix shall conform to the state of Connecticut Department of Transportation Standard Specifications Section M.13.04 and shall contain the following:

<u>Kind of Seed</u>	<u>Percent by Weight</u>
Kentucky Bluegrass	25
Creeping Red Fescue	35
K. 31 Tall Fescue	30
Domestic Ryegrass	5
Alsike Clover	5

Seed shall be delivered to the site in unopened containers with manufacturer's label attached.

Mulch shall be applied as required or as directed in the field to promote a good growth.

**Restoration work is to take place as soon as practical or as directed by the Engineer. The Contractor is to file with the Engineer his restoration plans, including a listing of any subcontractors, prior to the start of construction.**

### **3.6 Measurement and Payment:**

Work completed under this item shall be measured as the actual number of square yards of lawn area restored. Payment shall be made for all work necessary to restore surface areas to their original condition complete as shown or specified herein. Payment shall also include all work necessary to relocate fences, bushes, plants, etc., which are in the way of the construction and restoration activities except as specifically paid for under other items of these specifications.

Payment limit shall be 5 feet from either side of the edge of the new sidewalk or bituminous lip curbing. **The Contractor at his expense shall restore all areas disturbed outside the payment limit.** Payment lines are shown on the detail drawings.

**Appendix A**  
**Concrete**

## **Appendix A**

### **Concrete**

#### **A 1.1 Cement**

Portland cement shall conform to the Standard Specifications of ASTM Designation C150, latest revision, Type I or Type II cement. It shall be made by a well-known, acceptable manufacturer and the product of more than one plant shall be used on the work. Cement shall be stored and handled in such a manner as to prevent deterioration or the intrusion of foreign matter. Any material which has deteriorated or which has been damaged shall not be used for concrete.

#### **A 1.2 Aggregates**

Aggregates shall conform to ASTM Designation C33, latest revision. Coarse aggregate shall be size No. 67, nominal three-quarter inch (3/4") to No. 4, unless permitted otherwise by the Engineer. The Contractor shall obtain the services of an approved commercial testing laboratory to sample and test the aggregates to insure compliance with the above specification and shall submit the test results to the Engineer for approval before beginning work. Acceptance of samples shall not be considered as a guarantee of acceptance of all materials from the source and it shall be understood that any aggregates, which do not meet with requirements of these specifications, may be rejected at any time.

#### **A 1.3 Admixtures**

Admixtures other than an air-entraining admixture shall not be used without the written approval of the Engineer. Air entraining admixtures shall be used and shall be Sika AER, or approved equal, conforming to ASTM Designation C260. The air content of the concrete with three-quarter inch (3/4") maximum size aggregate shall be six per cent (6%), plus or minus one per cent (1%) by volume. The Contractor shall provide the equipment and all necessary assistance for calculating the air content in conformity with the requirements of "Test for Air Content of Freshly Mixed Concrete by the Pressure Method", ASTM Designation C231.

#### **A 1.4 Water**

Water used in mixing concrete shall be clean and free from injurious amounts of oils, acids, alkalies, organic materials, salts, or other substances that may be deleterious to concrete or steel.

#### **A 1.5 Storing and Handling Aggregates**

All materials used for concrete must be kept clean and free from all foreign matter during transportation and handling and kept separate until measured and placed in the mixer. Bins or platforms having hard, clean surfaces shall be provided for storage. Suitable means shall be taken during hauling, piling, and handling to prevent segregation of the coarse and fine particles of the aggregate to such a degree as to disturb the grading.

### **A 1.6 Measuring Materials**

The proportions of cement and fine and coarse aggregate for each batch of concrete shall be determined by weight. Equipment for measurement of the amount of water used in each mix shall be readily adjustable and capable of measuring water in variable amounts within a tolerance of one percent (1%).

All equipment for measuring and accurately controlling the quantities of materials shall be of approved design and shall be tested before they are used. Tests shall be made of moisture content of aggregates and allowance shall be made for the variations in moisture content as required.

### **A 1.7 Proportions**

Proportions of materials in the concrete and strength of concrete shall be approved by the Engineer and shall be subject to the following limitations:

<u>Class</u>	Minimum 28-day Compressive Strength psi	Maximum Net Water Content Gals. per Sacks Cement	Minimum Cement Contents Sacks Per Cubic Yard
A	3,500	54	6.5

Prior to the beginning of concrete work, the Contractor shall submit a statement of the proportions of the cement, fine aggregate, coarse aggregate and water, and the gradations of the fine and coarse aggregates he proposes to use for approval. He shall have standard test cylinders made and tested by an approved testing laboratory. Laboratory test reports shall show sources of materials, proportions of each material, including water, used in the test mix, consistency, and the results of 7-day and 28-day compressive strength tests. The exact proportions of materials used in the work shall be subject to the approval of the Engineer and shall not be changed without his approval. Slump test shall be made from time to time during the progress of the work.

### **A 1.8 Slump Control**

Class A concrete shall be furnished and placed at a slump of from two inches (2") to four inches (4") for slabs and walls respectively.

**A 1.9 Slump Tests and Test Cylinders**

The Contractor shall be responsible for and shall provide all labor, materials, tools, and equipment necessary for making slump tests and standard compression test cylinders as the work progresses, all at the direction of the Engineer, who shall be the sole judge of the number of tests and cylinders required.

The Contractor shall furnish all necessary materials for the tests, including standard slump cones and molds for concrete test cylinders in conformance with ASTM Standard C470, latest revision. The Contractor shall provide proper storage for the cylinders.

Standard test cylinders shall be made, stored, and cured in accordance with "Standard Method of Making and Curing Concrete Compression and Flexure Test Specimens in the Field", ASTM Designation C31, latest revision. A standard sample shall consist of six (6) test cylinders, three (3) of which normally shall be broken at seven (7) days and three (3) of which shall be broken at 28 days. Not less than one (1) standard sample shall be made for each fifty (50) cubic yards, or fraction thereof, of concrete placed in any one (1) day.

The Contractor shall provide the services of an approved testing laboratory to test the cylinders.

The Contractor in accordance with ASTM Designation C143, latest revision, shall make slump tests.

If tests do not show satisfactory results, the mix shall be adjusted as directed. Concrete which does not meet the strength requirements is subject to rejection and removal from the work or to such other corrective measures as are directed by the Engineer to make the work acceptable, all at the expense of the Contractor.

**A 1.10 Tests by Approved Laboratory**

Compression strength tests of cylinders shall conform to "Test for Compressive Strength of Molded Concrete Cylinders", ASTM Designation C39, latest revision.

The cost of all testing work shall be borne by the Contractor. The testing laboratory shall submit certified copies of the test results in duplicate directly to the Engineer and the Contractor within twenty-four (24) hours after tests are made.

**A 1.11 Mixing**

An approved rotation type batch machine shall mix concrete except where hand mixing of very small quantities may be permitted. The arrangements shall provide for the correct weight of each ingredient before placing in the mixer and the introduction of a measured quantity of water at any stage in the process. The quantity of ingredients to be mixed in each batch shall be governed by the size of the concrete mixer and shall not exceed the rated capacity specified for the mixer by the manufacturer. Unless otherwise permitted, the quantities shall be such as to require a whole number of bags of cement.

Mixing shall be thorough and all materials for each batch shall be mixed together at least two (2) minutes while the drum revolves at the proper speed.

#### **A 1.12 Transporting Concrete**

The concrete shall be transported and placed in the work not more than forty-five (45) minutes after the water is added to the dry ingredients. Care shall be taken to avoid spilling and separation of the mixture. No concrete in which ingredients have become separated shall be placed in the work. Retempering of partially set concrete will not be permitted. Suitable and approved equipment for transporting of concrete from mixer to forms shall be used.

#### **A 1.13 Transit Mixed Concrete**

If the Contractor desires to use transit mixed concrete, he shall submit full information as to the physical capability of the mixing plant and trucking facilities which are available and the estimated average amount which can be produced and delivered to the job site during a normal eight (8) hour day, excluding the output to other customers, for approval. The number of yards of concrete placed daily' will depend on the ability of the plant to deliver concrete to the site and is subject to the approval of the Engineer. The concrete shall be in accordance with the "Specification for Ready Mix Concrete", ASTM Designation C94, as amended, and all applicable requirements of this Item.

The Engineer shall have access to the mixing plant at all times. The concrete shall be mixed in revolving drum-type truck mixers, which are in good condition and which produce thoroughly mixed concrete of the specified consistency and strength. Loads shall not exceed the proper capacity of the mixer.

Concrete shall be mixed for a minimum of one and one-half (1-1/2) minutes after it arrives at the job site, or as recommended by the mixer manufacturer. The drum shall not mix while in transit. Mixing shall be continuous at proper speed until the concrete is discharged. Concrete shall be discharged from the mixer within one (1) hour after water is added to the mix and shall have a maximum slump from two inches (2") to four inches (4").

Adequate facilities shall be available for continuous delivery of concrete at the required rates. Concrete which does not meet the requirements of this specification will be rejected.

#### **A 1.14 Placing Concrete**

Immediately before placing concrete, the forms shall be thoroughly cleaned and wet and the space to be occupied by concrete shall be free from all dirt, chips, and foreign material. The concrete shall be carried up level along the whole length of the section under construction and shall be so placed so as to avoid rehandling within the forms. Concrete shall be compacted by means of approved internal vibrators to produce dense, homogeneous concrete without pockets or voids. Vibrators shall not be used to move the concrete along the form.

When fresh and previously placed concrete masonry are jointed, immediately before placing fresh concrete, the contact surface of the old concrete shall be thoroughly cleaned using a stiff brush or other tools and a stream of water under pressure. The surface shall be clean and wet but free from pools of water at the moment the fresh concrete is placed. Any laitance, waste mortar, or other substance, which will prevent complete adhesion, will be removed. A one-inch (1") thick coat of mortar of similar proportions to the mortar in the concrete shall be placed over the contact surface of the old concrete and the fresh concrete shall be placed before the mortar has attained its initial set. No concrete shall be placed when the Engineer is not present.

#### **A 1.15 Weather Conditions and at Night**

Concrete placement during the cold and hot weather and at night shall conform to the following requirements.

Cold Weather: All methods and materials used for winter concreting shall be in accordance with the requirements of "Recommended Practice for Winter Concreting", ACI 306, latest revision, and shall be subject to the approval of the Engineer. Plans to protect fresh concrete from freezing and to maintain temperatures not less than the permissible minimum during the first seven (7) days after placing shall be made before the first frosts are to occur. The temperature of the concrete placed shall not be less than 55°F, nor greater than 85°F and a temperature of between 50°F and 70°F shall be maintained for at least seven (7) days after placing. Means shall be provided, if necessary, to ensure that the ambient temperature shall not fall more than 30°F in the twenty-four (24) hours following the seven (7) day period. Admixtures, except those approved by the engineer, shall not be used. The cost of all material furnished or required to protect against freezing shall be at the sole expense of the Contractor without extra charge therefore.

Hot Weather: All methods and materials used for hot weather concreting shall be in accordance with the requirements of "Recommended Practice for Hot Weather Concreting", ACI 305, latest revision, and shall be subject to the approval of the Engineer. Concrete deposited in hot weather shall have a placing temperature, which will not cause difficulty from loss of slump, flash set, or cold joints.

At Night: No concrete shall be placed at night without permission of the Engineer, and the Contractor shall give at least twelve (12) hours notice to the engineer if he wishes to place concrete at night.

#### **A 1.16 Quality of Concrete Work**

Concrete shall be placed solidly against the forms and elsewhere so as to leave no voids. Every precaution shall be taken to make all masonry solid, compact, watertight, and smooth and to prevent the formation of laitance and to avoid cold joints. If for any reason the surfaces have voids or are unduly rough, or are in any way defective, such masonry shall be cut out to the extent ordered or permitted and shall be repaired to the satisfaction of the Engineer. The cost of all repairs shall be borne by the Contractor. No thin patches or plastering will be accepted.

Any concrete that is defective, which, in the opinion of the Engineer, cannot be properly repaired as described above, shall be removed and replaced at the expense of the Contractor.

## Consolideck® Saltguard® Water Repellent Specification

*Specifier Note: The information provided below is intended to guide the Architect in developing specifications for products manufactured by PROSOCO, Inc. and should not be viewed as a complete source of information about the product(s). The Architect should always refer to the Product Data Sheet and MSDS for additional recommendations and for safety information.*

*Specifier Note: Paragraph below is for PART 1 GENERAL, Quality Assurance.*

### Test Area

Test a minimum 4 ft. by 4 ft. area on each type of masonry. Use the manufacturer's application instructions. Let test area dry thoroughly before inspection. Keep test panels available for comparison throughout the protective treatment project.

*Specifier Note: Paragraphs below are for PART 2 PRODUCTS, Manufacturers and Products.*

**Manufacturer:** PROSOCO, Inc., 3741 Greenway Circle, Lawrence, KS 66046. Phone: (800) 255-4255; Fax: (785) 830-9797. E-mail: CustomerCare@prosoco.com

### Product Description

Consolideck® Saltguard® is a general-purpose silane/siloxane water repellent and chloride screen for concrete and masonry. Saltguard® protects horizontal and vertical surfaces from moisture intrusion and chemical attack of chloride salts, reducing rebar corrosion and surface spalling.

### Technical Data

FORM: Clear liquid

SPECIFIC GRAVITY: 0.794

pH: not applicable

WEIGHT/GALLON.: 6.61 pounds

ACTIVE CONTENT: 11 percent

TOTAL SOLIDS: 9 percent

FLASH POINT: 127 degrees F (53 degrees C) ASTM D 3278

FREEZE POINT: no data

VOC CONTENT: greater than 600 g/Liter. Manufactured and marketed in compliance with USEPA AIM VOC regulations (40 CFR 59.403). Not suitable for sale in states and districts with more restrictive AIM VOC regulations.

### Limitations

- Not suitable for application to synthetic resin paints, gypsum, plaster or other non masonry surfaces.
- May not be suitable for surfaces receiving paints or coatings. Always test.
- May cause slight darkening on some surfaces.
- May adhere to glass. Contact PROSOCO for removal recommendations.
- Not suitable for protecting surfaces subject to constant water spray.
- Will not compensate for structural or material defects.
- Not recommended for below-grade application.
- Not suitable for sale in states and districts with more restrictive AIM VOC regulations.

*Specifier Note: Paragraphs below are for PART 3 EXECUTION, Installation.*

### Application

Before applying, read "Preparation" and "Safety Information" sections in the Manufacturer's Product Data Sheet for Saltguard®. Refer to the Product Data Sheet for additional information about application of Saltguard®. Do not dilute or alter.

**Horizontal Application Instructions**

1. Apply protective treatment in a single saturating application. Use enough to keep the surface wet for a few minutes before penetrating.
2. Broom out all puddles thoroughly until they penetrate the surface.

**Vertical Application Instructions**

1. Apply with low-pressure spray in a flooding application from the bottom up. Apply enough material for a rundown below the spray pattern.
2. Brush out heavy runs and drops thoroughly until material penetrates the surface.

Note: When using brushes or rollers, saturate the surface to the point of rejection.

**Fluted architectural block:**

Spray in an "overlapping X pattern" for complete coverage of recessed surfaces.

**Porous Surfaces:** Will require a "wet-on-wet" application. Let first application penetrate for 5 to 10 minutes and then reapply. Do not let any of the first application dry before making the second application. Less material will be required on the second application.

Note: Protect from rain and pedestrian traffic for 4-6 hours.

Note: Protect from vehicular traffic for 8-10 hours.

**DIVISION 3 - CONCRETE**  
**Section 03550 - Concrete Toppings**  
**Section 03720 - Concrete Resurfacing**  
**Section 03730 - Concrete Rehabilitation**

**Part 1 – General****1.01 Summary**

- A. This specification describes the patching or overlay of interior and/or exterior horizontal surfaces with a polymer-modified, portland cement mortar/concrete.

**1.02 Quality Assurance**

- A. Manufacturing qualifications: The manufacturer of the specified product shall be ISO 9001 certified and have in existence a recognized ongoing quality assurance program independently audited on a regular basis.
- B. Contractor qualifications: Contractor shall be qualified in the field of concrete repair and protection with a successful track record of 5 years or more. Contractor shall maintain qualified personnel who have received product training by a manufacturer's representative
- C. Install materials in accordance with all safety and weather conditions required by manufacturer or as modified by applicable rules and regulations of local, state and federal authorities having jurisdiction. Consult Material Safety Data Sheets for complete handling recommendations.

**1.03 Delivery, Storage, and Handling**

- A. All materials must be delivered in original, unopened containers with the manufacturer's name, labels, product identification, and batch numbers. Damaged material must be removed from the site immediately.
- B. Store all materials off the ground and protect from rain, freezing or excessive heat until ready for use.
- C. Condition the specified product as recommended by the manufacturer.

**1.04 Job Conditions**

- A. Environmental Conditions: Do not apply material if it is raining or snowing or if such conditions appear to be imminent. Minimum application temperature 45°F (7°C) and rising.
- B. Protection: Precautions should be taken to avoid damage to any surface near the work zone due to mixing and handling of the specified material.

**1.05 Submittals**

- A. Submit two copies of manufacturer's literature, to include: Product Data Sheets, and appropriate Material Safety Data Sheets (MSDS).

**1.06 Warranty**

- A. Provide a written warranty from the manufacturer against defects of materials for a period of one (1) year, beginning with date of substantial completion of the project.

## Part 2 - Products

### 2.01 Manufacturer

- A. **SikaTop 122 Plus**, as manufactured by Sika Corporation, is considered to conform to the requirements of this specification.

### 2.02 Materials

- A. Polymer-modified Portland cement mortar:
1. Component A shall be a liquid polymer emulsion of an acrylic copolymer base and additives.
    - a. pH: 4.5-6.5
    - b. Film Forming Temperature: 73°F max.
    - c. Tear Strength: 950-psi min.
    - d. Elongation at Break: 500% min.
    - e. Particle Size: less than 0.1 micron
  2. Component A shall contain an organic, penetrating corrosion inhibitor which has been independently proven to reduce corrosion in concrete via ASTM G3 (half-cell potential tests). The corrosion inhibitor shall not be calcium nitrite, and shall have a minimum of 5 years of independent field testing to document performance on actual construction projects.
  3. Component B shall be a blend of selected portland cements, specially graded aggregates, admixtures for controlling setting time, water reducers for workability, and an organic accelerator.
  4. The materials shall be non-combustible, both before and after cure.
  5. The materials shall be supplied in a factory-proportioned unit.
  6. The polymer-modified, portland cement mortar must be placeable from 1/8-in. to 1-in. in depth per lift for horizontal applications.
- B. To prepare a polymer-modified portland cement concrete: aggregate shall conform to ASTM C-33. The factory-proportioned unit shall be extended with 42-lb. max. of a 3/8 in. ( No.8 distribution per ASTM C-33, Table II) clean, well-graded, saturated surface dry aggregate, having low absorption and high density. Aggregate must be approved for use by the Engineer.

### 2.03 Performance Criteria

- A. Typical Properties of the mixed polymer-modified, portland cement mortar:
1. Working Time: Approximately 30 minutes
  2. Finishing Time: 50-120 minutes
  3. Color: concrete gray when mixed
- B. Typical Properties of the cured polymer-modified, portland cement mortar:
1. Compressive Strength (ASTM C-109 Modified)
    - a. 1 day: 3000 psi min. (20.7 MPa)
    - b. 7 day: 5500 psi min. (37.9 MPa)
    - c. 28 day: 7000 psi min. (48.3 MPa)
  2. Flexural Strength (ASTM C-293) @ 28 days: 2000 psi (13.8 MPa)
  3. Splitting Tensile Strength (ASTM C-496) @ 28 days 750 psi (5.2 MPa)
  4. Bond Strength (ASTM C-882 Modified) @ 28 days: 2200 psi (15.2 MPa)
  5. The portland cement mortar shall not produce a vapor barrier.
  6. Density(wet mix): 136 lbs. / cu. ft. (2.18 kg/l)
  7. Permeability (AASHTO T-277 @ 28 days Approximately 500 Coulombs)

**Note: Tests above were performed with the material and curing conditions @ 71°F – 75°F and 45-55% relative humidity.**

## Part 3 – Execution

### 3.01 Surface Preparation

- A. Areas to be repaired must be clean, sound, and free of contaminants. All loose and deteriorated concrete shall be removed by mechanical means. Mechanically prepare the concrete substrate to obtain a surface profile of +/- 1/16" (CSP 5 or greater as per ICRI Guidelines) with a new exposed aggregate surface. Area to be patched shall not be less than 1/8" in depth.
- B. Where reinforcing steel with active corrosion is encountered, sandblast the steel to a white metal finish to remove all contaminants and rust. Where corrosion has occurred due to the presence of chlorides, the steel shall be high pressure washed after mechanical cleaning. Prime steel with 2 coats of Sika Armatec 110 EpoCem as directed by manufacturer. (See Spec Component SC-201-0699)

### 3.02 Mixing and Application

- A. Mechanically mix in appropriate sized mortar mixer or with a Sika jiffy paddle and low speed (400-600 rpm) drill. Pour approximately 4/5 gal Component A into the mixing container. Add Component B while continuing to mix. Mix to a uniform consistency for a maximum of three minutes. Add remaining Component A to mix if a more loose consistency is desired. Should smaller quantities be needed, be sure the components are measured in the correct ratio and that the Component B is uniformly blended before mixing the components together. Mix only that amount of material that can be placed in 30 minutes. Do not retemper material.
- B. Mixing of the polymer-modified portland cement concrete: Pour all (1-gallon) of Component A into the mixing container. Add Component B while continuing to mix. Add correct amount of the pre-approved coarse aggregate, and continue mixing to a uniform consistency. Mixing time should be 3 minutes maximum.
- C. Placement Procedure: At the time of application, the substrate should be saturated surface dry with no standing water. Mortar and/or concrete must be scrubbed into substrate filling all pores and voids. While the scrub coat is still plastic, force material against edge of repair, working toward center. If repair area is too large to fill while scrub coat is still wet use Sika Armatec 110 EpoCem in lieu of scrub coat (See Spec Component SC-200). After filling, consolidate, then screed. Allow mortar or concrete to set to desired stiffness, then finish with trowel, manual or power, for smooth surface. Broom or burlap drag for rough surface. Areas where the depth of the repair is less than 1-inch shall be repaired with polymer-modified portland cement mortar. In areas where the depth of the repair is greater than 1 inch, the repair shall be made with polymer-modified portland cement concrete.
- D. As per ACI recommendations for portland cement concrete, curing is required. Moist cure with wet burlap and polyethylene, a fine mist of water or a water-based\* compatible curing compound. Moist curing should commence immediately after finishing and continue for 48 hours. Protect newly applied material from rain, sun, and wind until compressive strength is 70% of the 28-day compressive strength. To prevent from freezing cover with insulating material. Setting time is dependent on temperature and humidity.

\*Pretesting of curing compound is recommended.

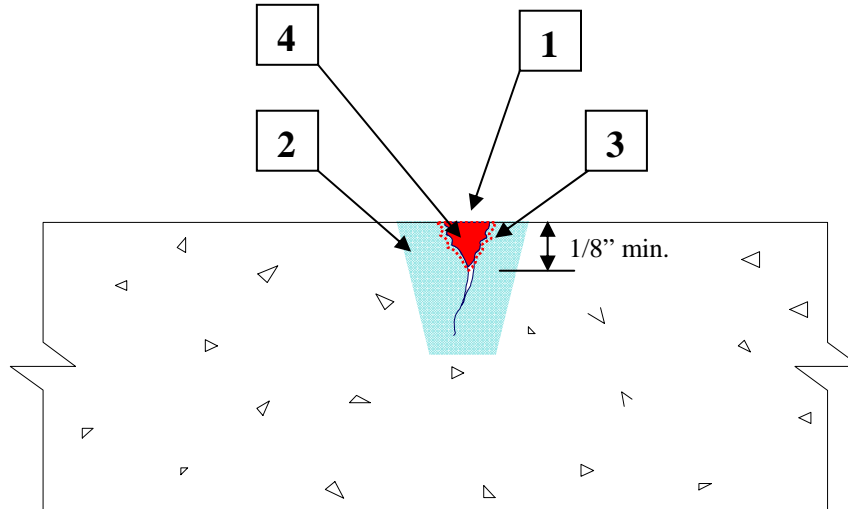
- E. Adhere to all procedures, limitations and cautions for the polymer-modified portland cement mortar in the manufacturers current printed technical data sheet and literature.

### 3.05 Cleaning

- A. The uncured polymer-modified portland cement mortar can be cleaned from tools with water. The cured polymer - modified portland cement mortar can only be removed mechanically.
- B. Leave finished work and work area in a neat, clean condition without evidence of spillovers onto adjacent areas.

**SC-025**

## **SikaTop® 122 Plus Crack Repair**

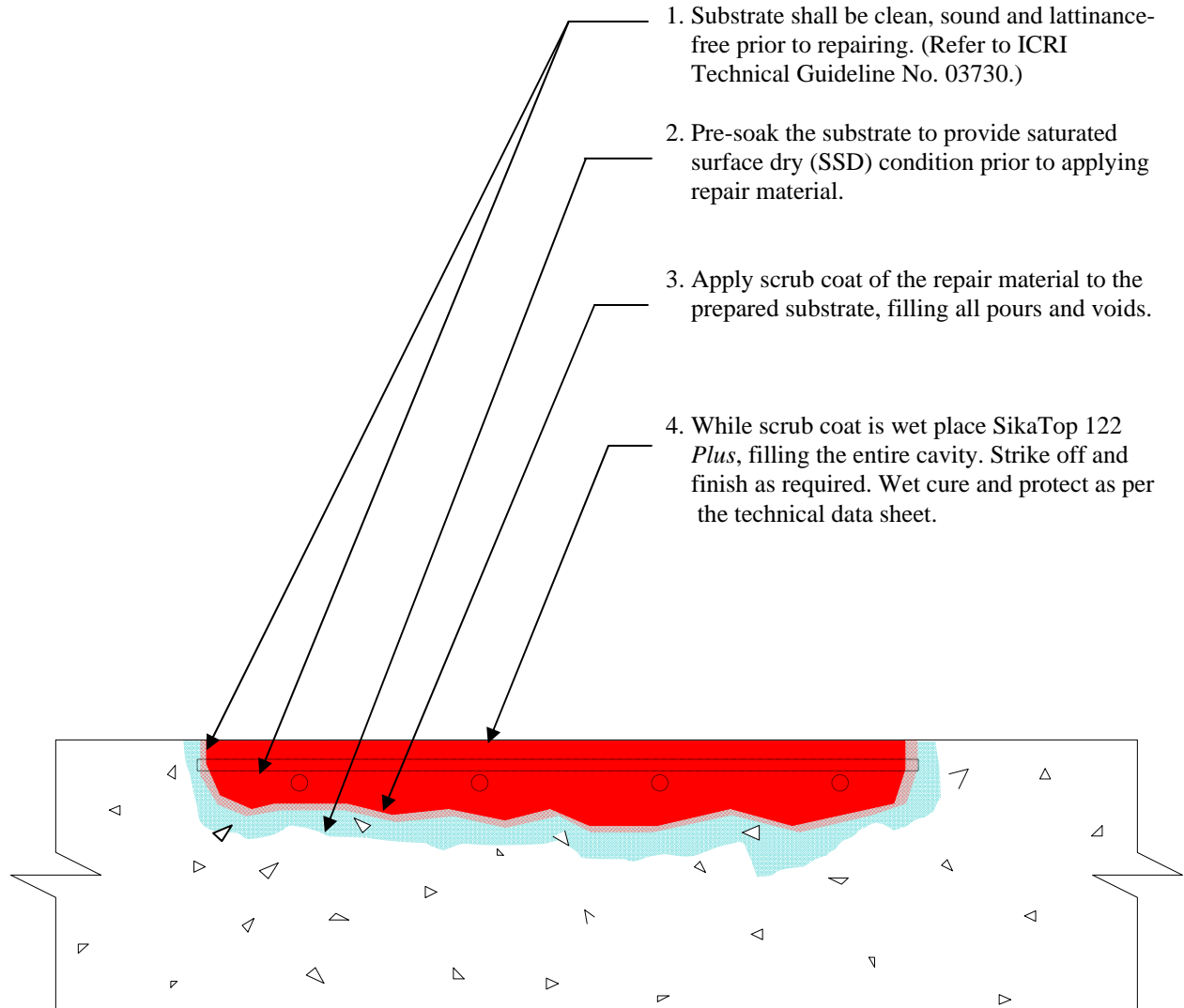


1. Substrate shall be clean, sound and lamination-free prior to repairing.
2. Pre-soak the substrate to provide saturated surface dry (SSD) condition prior to applying repair material.
3. Apply scrub coat of the repair material to the prepared substrate.
4. While scrub coat is wet place SikaTop 122 *Plus*, filling the entire cavity. Strike off and finish as required. Wet cure and protect as per the technical data sheet.

**Concrete Restoration Systems by Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071**

# SC-025

## SikaTop® 122 Plus Hand-applied Repair



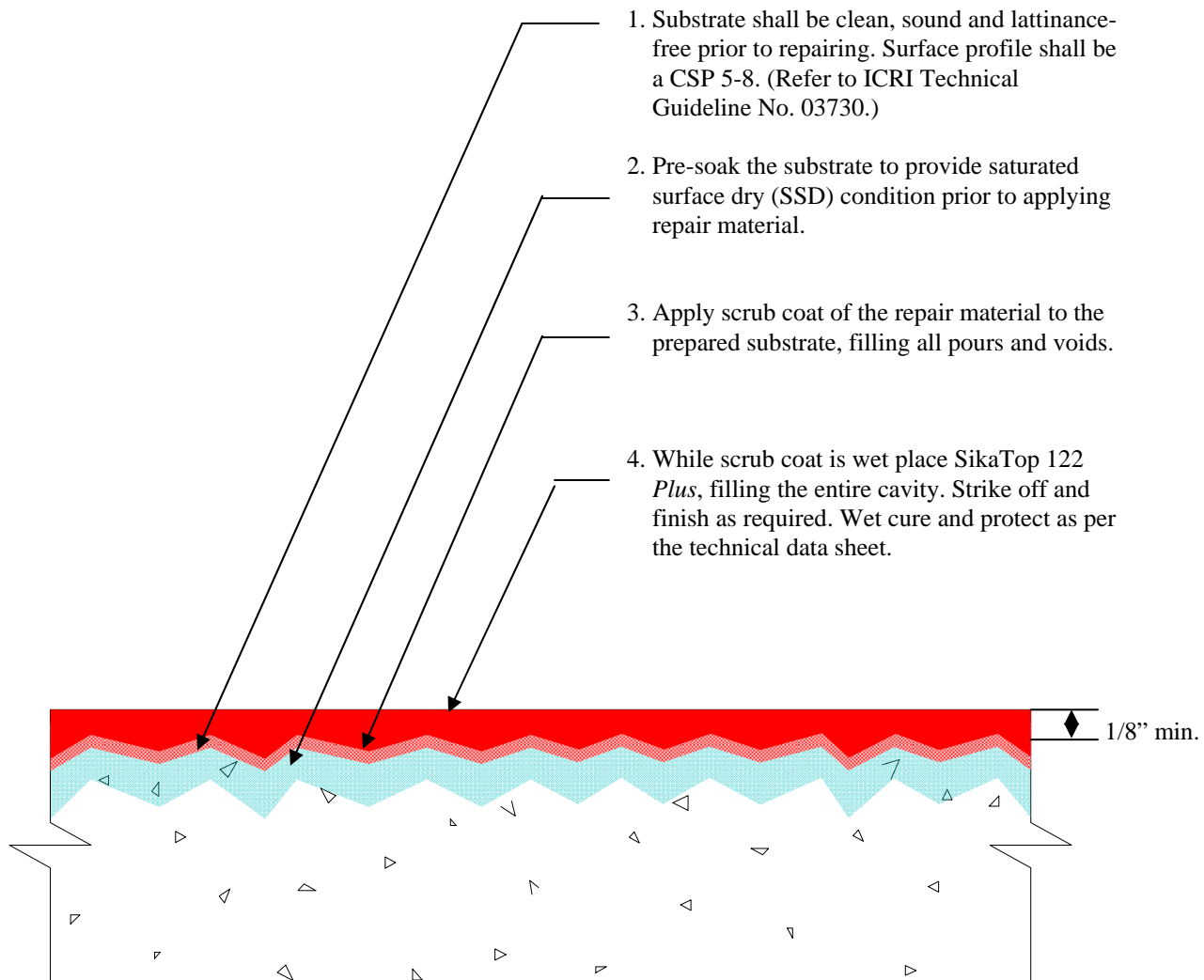
**Note:**

1. If repair area is too large to fill while scrub coat is still wet, use Sika Armatex 110 EpoCem in lieu of the scrub coat. (See Spec Component SC-200)
2. If reinforcing steel is located within the repair location refer to Spec Component SC-201
3. For applications greater than 1" in depth, add 3/8" coarse aggregate in accordance to the technical data sheet.

**Concrete Restoration Systems by Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071**

# SC-025

## SikaTop® 122 Plus Overlay



### Note:

1. If repair area is too large to fill while scrub coat is still wet, use Sika Armathec 110 EpoCem in lieu of the scrub coat. (See Spec Component SC-200)
2. If reinforcing steel is located within the repair location refer to Spec Component SC-201
3. For applications greater than 1" in depth, add 3/8" coarse aggregate in accordance to the technical data sheet.

Concrete Restoration Systems by Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071

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Prior to each use of any Sika product, the user must always read and follow the warnings and instructions on the product's most current Technical Data Sheet, product label and Material Safety Data Sheet which are available at [www.sikaconstruction.com](http://www.sikaconstruction.com) or by calling (201) 933-7452. Nothing contained in any Sika materials relieves the user of the obligation to read and follow the warnings and instructions for each Sika product as set forth in the current Technical Data Sheet, product label and Material Safety Data Sheet prior to product use.



Spec Component: SC-200-  
03/10  
Sika Armattec 110 EpoCem

**DIVISION 3 - CONCRETE**  
**Section 03300 - Cast-in-Place Concrete**  
**Bonding Agents for Concrete**

**Part 1 - General**

**1.01 Summary**

- A. This specification describes the use of a bonding bridge between new portland-cement mortar or concrete and hardened portland-cement mortar or concrete.

**1.02 Quality Assurance**

- A. Manufacturing qualifications: The manufacturer of the specified product shall be ISO 9001 certified and have in existence a recognized ongoing quality assurance program independently audited on a regular basis.
- B. Contractor qualifications: Contractor shall be qualified in the field of concrete repair and protection with a successful track record of 5 years or more. Contractor shall maintain qualified personnel who have received product training by a manufacturer's representative.
- C. Install materials in accordance with all safety and weather conditions required by manufacturer, or as modified by applicable rules and regulations of local, state and federal authorities having jurisdiction. Consult Material Safety Data Sheets for complete handling recommendations.

**1.03 Delivery, Storage, and Handling**

- A. All materials must be delivered in original, unopened containers with the manufacturer's name, labels, product identification, and batch numbers. Damaged material must be removed from the site immediately.
- B. Store all materials off the ground and protect from rain, freezing or excessive heat until ready for use.
- C. Condition the specified product as recommended by the manufacturer.

**1.04 Job Conditions**

- A. Environmental Conditions: Do not apply material if it is raining or snowing or if such conditions appear to be imminent. Minimum application temperature 40°F (5°C) and rising.
- B. Protection: Precautions should be taken to avoid damage to any surface near the work zone due to mixing and handling of the specified coating.

**1.05 Submittals**

- A. Submit two copies of manufacturer's literature, to include: Product Data Sheets, and appropriate Material Safety Data Sheets (MSDS).

**1.06 Warranty**

- A. Provide a written warranty from the manufacturer against defects of materials for a period of one (1) year, beginning with date of substantial completion of the project.

## Part 2 - Products

### 2.01 Manufacturers

- A. **Sika Armattec 110 EpoCem**, as manufactured by Sika Corporation, is considered to conform to the requirements of this specification.

### 2.02 Materials

- A. Epoxy resin/portland cement adhesive shall be **Sika Armattec 110 EpoCem**
1. Component "A" shall be an epoxy resin/water emulsion containing suitable viscosity control agents. It shall not contain butyl glycidyl ether.
  2. Component "B" shall be primarily a water solution of a polyamine.
  3. Component "C" shall be a blend of selected portland cements and sands.
  4. The material shall not contain asbestos.

### 2.03 Performance Criteria

- A. Properties of the mixed epoxy resin/portland cement adhesive.
1. Pot Life: 90 minutes @ 73° F
  2. Contact Time: 95°F (35°C) 6 hours  
80-95F (26-35C) 6 Hours  
65-79F (18-26C) 12 Hours  
50-64F (10-17C) 16 Hours  
40-49F (4-9C) wet on wet
  3. Color: dark gray
- B. Properties of the cured epoxy resin/portland cement adhesive.
1. Compressive Strength (ASTM C-109)
    - a. 3 day: 4500 psi (31.0 MPa)
    - b. 7 day: 6500 psi (44.8 MPa)
    - c. 28 day: 8500 psi (58.6 MPa)
  2. Splitting Tensile Strength (ASTM C-496)
    - a. 28 days: 600 psi (4.1 MPa)
  3. Flexural Strength (ASTM C-348)
    - a. 1250 psi (8.6 MPa)
  4. Bond Strength ASTM C-882 at 14 days
    - a. Wet on Wet, 0-hr. open time: 2800 psi (19.3 MPa)
    - b. 24-hr. open time: 2600 psi (17.9 MPa)
  5. Bond of Steel Reinforcement to Concrete (Pullout Test)
    - a. Sika Armattec 110 coated 625-psi (4.3 MPa)
    - b. Epoxy coated 508 psi (3.5 MPa)
    - c. Plain Reinforcement 573 psi (3.95 MPa)
  6. The epoxy resin/portland cement adhesive shall not produce a vapor barrier.
  7. Material must be proven to prevent corrosion of reinforcing steel when tested under the procedures as set forth by the Federal Highway Administration Program Report No. FHWA/RD86/193. Proof shall be in the form of an independent testing laboratory corrosion report showing prevention of corrosion of the reinforcing steel.

Note: Tests above were performed with material and curing conditions at 73°F and 45-55% relative humidity.

## **Part 3 - Execution**

### **3.01 Mixing and Application**

- A. Mixing the epoxy resin: Shake contents of Components “A” and Component “B”. Completely empty both components into a clean, dry mixing pail. Mix thoroughly for 30 seconds using a jiffy paddle with a low-speed (400-600 rpm) drill. Slowly add the entire contents of Component “C” while continuing to mix for 3 minutes until uniform with no lumps. Mix only that quantity that can be applied within its pot life.
- B. Placement procedure:
  - 1. Apply to prepared surface with a stiff-bristle brush, broom or “hopper type” spray equipment.
    - a. For hand-applied mortars - Place fresh, plastic concrete/mortar while the bonding bridge adhesive is “wet” or within open times indicated in section 2.03.A.2.
    - b. For machine-applied mortars - Apply while the bonding bridge adhesive is “wet” or within the open times indicated in section 2.03.A.2.
- C. Adhere to all limitations and cautions for the epoxy resin/portland cement adhesive in the manufacturers current printed literature.

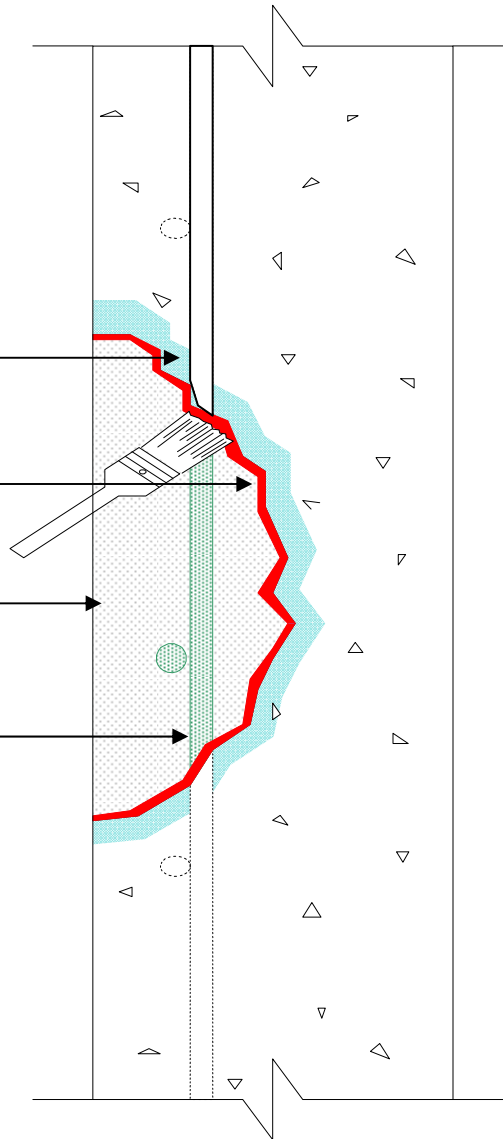
### **3.02 Cleaning**

- A. The uncured epoxy resin/portland cement adhesive can be cleaned from tools with water. The cured epoxy resin/portland cement adhesive can only be removed mechanically.
- B. Leave finished work and work area in a neat, clean condition without evidence of spillovers onto adjacent areas.

# SC-200

## Sika® Armatec 110 EpoCem Bonding Bridge

1. Pre-wet surface to saturated surface dry (SSD).
2. Apply by stiff bristle brush or spray apply with “hopper type” or equal equipment.
3. Place repair material while **Sika Armatec 110 EpoCem** is still wet or within indicated open times.
4. Indicates Sika Armatec 110 EpoCem applied to reinforcing steel per Spec Component SC-201



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# SikaTop® 122 PLUS

Two-component, polymer-modified, cementitious, trowel-grade mortar plus Sika FerroGard® 901 penetrating corrosion inhibitor

<b>Description</b>	SikaTop® 122 PLUS is a two-component, polymer-modified, portland cement based, fast-setting, trowel-grade mortar. It is a high performance repair mortar for horizontal and vertical surfaces and offers the additional benefit of Sika FerroGard® 901, a penetrating corrosion inhibitor.
<b>Where to Use</b>	<ul style="list-style-type: none"> <li>■ On grade, above and below grade on concrete and mortar.</li> <li>■ On horizontal surfaces.</li> <li>■ As a structural repair material for parking structures, industrial plants, walkways, bridges, tunnels, dams, ramps, floods, etc.</li> <li>■ To level concrete surfaces.</li> <li>■ As an overlay system for topping/resurfacing concrete.</li> </ul>
<b>Advantages</b>	<ul style="list-style-type: none"> <li>■ Extremely low shrinkage <b>proven by four industry standard test methods.</b></li> <li>■ High compressive and flexural strengths.</li> <li>■ High abrasion resistance.</li> <li>■ Increased freeze/thaw durability and resistance to deicing salts.</li> <li>■ Compatible with coefficient of thermal expansion of concrete - Passes ASTM C-884.</li> <li>■ Increased density - improved carbon dioxide resistance (carbonation) without adversely affecting water vapor transmission (not a vapor barrier).</li> <li>■ Sika FerroGard® 901, a penetrating corrosion inhibitor - reduces corrosion even in the adjacent concrete.</li> <li>■ USDA certifiable for the food industry.</li> <li>■ ANSI/NSF Standard 61 potable water compliant.</li> </ul>
<b>Coverage</b>	0.51 cu. ft./ unit mortar; 0.75 cu. ft./unit concrete; (mixed mortar + 42 lbs. 3/8 pea gravel)
<b>Packaging</b>	<b>Component 'A'</b> - 1-gal. plastic jug; 4/carton. <b>Component 'B'</b> - 61.5-lb. multi-wall bag.

## Typical Data (Material and curing conditions @ 73°F (23°C) and 50% R.H.)

RESULTS MAY DIFFER BASED UPON STATISTICAL VARIATIONS DEPENDING UPON MIXING METHODS AND EQUIPMENT, TEMPERATURE, APPLICATION METHODS, TEST METHODS, ACTUAL SITE CONDITIONS AND CURING CONDITIONS.

<b>Shelf Life</b>	One year in original, unopened packaging.
<b>Storage Conditions</b>	Store dry at 40°-95°F. Condition material to 65°-75°F before using. Protect Component 'A' from freezing. If frozen, discard.
<b>Color</b>	Concrete gray when mixed.
<b>Mixing Ratio</b>	Plant-proportioned kit, mix entire unit.
<b>Application Time</b>	Approximately 30 minutes.
<b>Finishing Time</b>	50-120 minutes

**Note:** All times start after adding Component 'B' to Component 'A' and are highly affected by temperature, relative humidity, substrate temperature, wind, sun and other job site conditions.

<b>Density (wet mix)</b>	<b>ASTM C 138</b>	136 lbs./ft³ (2.18 kg./l)
<b>Flexural Strength</b>	<b>ASTM C 293</b>	28 days 1,500 psi
<b>Split Tensile</b>	<b>ASTM C 496</b>	28 days 500 psi
<b>Bond Strength</b>	<b>ASTM C 882 (modified)</b>	28 days 2,000 psi
<b>Compressive Strength</b>	<b>ASTM C 109</b>	1 day 2,500 psi 7 days 5,300 psi 28 days 7,000 psi
<b>Shrinkage</b>	<b>ASTM C 157 (mod. ICRI 320.3R)</b>	
<b>Specimen Size 1"x1"x11-1/4"</b>		28 days <0.05%
<b>Specimen Size 3"x3"x11-1/4"</b>		28 days <0.021%
<b>Ring Test (days)</b>	<b>ASTM C 1581</b>	>70 days
<b>Ring Test - Average Max Strain</b>	<b>ASTM C 1581</b>	-9 µstrain
<b>Ring Test - Average Stress Strain</b>	<b>ASTM C 1581</b>	0.49 psi/day
<b>Ring Test - Potential for Cracking Baenzinger Block</b>	<b>ASTM C 1581</b>	Low 90 days No cracking
<b>Freeze/Thaw Durability (300 cycles)</b>	<b>ASTM C 666</b>	98%
<b>Cl Permeability</b>	<b>ASTM C 1202</b>	<500 Coulombs.
<b>Direct Bond Strength</b>	<b>ASTM C 1583</b>	7 days 400 psi 28 days >300 psi
<b>Modulus of Elasticity</b>	<b>ASTM C 531</b>	3.00x10 <sup>6</sup> psi
<b>Initial Set Time (min)</b>	<b>ASTM C 266</b>	40-70

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## How to Use

Substrates	Concrete, mortar, and masonry products.		
Surface Preparation	<p>Remove all deteriorated concrete, dirt, oil, grease and all bond inhibiting materials from surface. Be sure repair area is not less than 1/8 inch in depth. Preparation work should be done by high pressure water blast, scabblor, or other appropriate mechanical means to obtain an exposed aggregate surface with a minimum surface profile of ±1/16 inch (CSP-5); ±1/8 inch (CSP-6). Saturate surface with clean water. Substrate should be saturated surface dry (SSD) with no standing water during application.</p> <p><b>Reinforcing Steel:</b> Steel reinforcement should be thoroughly prepared by mechanical cleaning to remove all traces of rust. Where corrosion has occurred due to the presence of chlorides, the steel should be high-pressure washed with clean water after mechanical cleaning. For priming of reinforcing steel use Sika® Armatec® 110 EpoCem (Consult Product Data Sheet).</p> <p><b>Priming Concrete Substrate:</b> Prime the prepared substrate with a brush or sprayed applied coat of Sika® Armatec® 110 EpoCem (consult Product Data Sheet). Alternately, a scrub coat of SikaTop® 122 PLUS can be applied prior to placement of the mortar. The repair mortar has to be applied into the wet scrub coat before it dries.</p>		
Mixing	<p>Pour approximately 7/8 of Component 'A' into the mixing container. Add Component 'B' (powder) while mixing continuously. Mix mechanically with a low-speed drill (400- 600 rpm) and mixing paddle or mortar mixer. Add remaining Component 'A' (liquid) to mix if a more loose consistency is desired. Mix to a uniform consistency, maximum 3 minutes. Thorough mixing and proper proportioning of the two components is necessary.</p> <p><b>For SikaTop® 122 PLUS concrete:</b> Pour all of Component 'A' into mixing container. Add all of Component 'B' while mixing, then introduce 3/8 inch coarse aggregate at desired quantity. Mix to uniform consistency, maximum 3 minutes. Addition rate is 42 lbs. per bag (approx. 3.0 to 3.5 gal. by loose volume). The aggregate must be non-reactive (reference ASTM C 1260, C 227 and C 289), clean, well-graded, saturated surface dry, have low absorption and high density, and comply with ASTM C 33 size number 8 per Table 2. Note: Variances in the quality of the aggregate will affect the physical properties of SikaTop® 122 PLUS. The yield is increased to 0.75 cu. ft./unit with the addition of the aggregate (42 lbs.). Do not use limestone aggregate.</p>		
Application	<p>SikaTop® 122 PLUS must be scrubbed into the substrate, filling all pores and voids. Force material against edge of repair, working toward center. After filling repair, consolidate, then screed. Allow mortar or concrete to set to desired stiffness, then finish with wood or sponge float for a smooth surface, or broom or burlap-drag for a rough finish.</p>		
Tooling & Finishing	<p>As per ACI recommendations for portland cement concrete, curing is required. Moist cure with wet burlap and polyethylene, a fine mist of water or a water based* compatible curing compound (ASTM C 309 compliant). Curing compounds adversely affect the adhesion of following layers of mortar, leveling mortar or protective coatings. Moist curing should commence immediately after finishing. Protect newly applied material from direct sunlight, wind, rain and frost.</p> <p>*Pretesting of curing compound is recommended.</p>		
Limitations	<b>Application thickness:</b>	<b>Min.</b>	<b>Max. in one lift</b>
	Neat	1/8 inch (3 mm)	1 inch (25 mm)
	Extended	1 inch (25 mm)	4 inches (100 mm)
	<ul style="list-style-type: none"><li>■ Minimum ambient and surface temperatures 45°F (7°C) and rising at time of application.</li><li>■ Addition of coarse aggregates may result in variations of the physical properties of the mortar.</li><li>■ Do not use solvent-based curing compound.</li><li>■ Size, shape and depth of repair must be carefully considered and consistent with practices recommended by ACI or ICRI. For additional information, contact Technical Service.</li><li>■ For additional information on substrate preparation, refer to ICRI Guideline No.310.2R Coatings, Polymer Overlays, and Concrete Repair.</li><li>■ If aggressive means of substrate preparation is employed, substrate strength should be tested in accordance with ACI 503 Appendix A prior to the repair application.</li><li>■ As with all cement based materials, avoid contact with aluminum to prevent adverse chemical reaction and possible product failure. Insulate potential areas of contact by coating aluminum bars, rails, posts etc. with an appropriate epoxy such as Sikadur® 32, Hi-Mod.</li></ul>		

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# Sika® Armatec® 110 EpoCem

## Bonding Agent and Reinforcement Protection

<b>Description</b>	Sika® Armatec® 110 EpoCem is a 3-component, solvent-free, moisture-tolerant, epoxy-modified, cementitious product specifically formulated as a bonding agent and anti-corrosion coating.
<b>Where to Use</b>	<ul style="list-style-type: none"> <li>■ As an anti-corrosion coating for reinforcing steel in concrete restoration.</li> <li>■ As added protection to reinforcing steel in areas of thin concrete cover.</li> <li>■ As a bonding agent for repairs to concrete and steel.</li> <li>■ As a bonding agent for placing fresh, plastic concrete to existing hardened concrete.</li> </ul>
<b>Advantages</b>	<ul style="list-style-type: none"> <li>■ Excellent adhesion to concrete and steel.</li> <li>■ Acts as an effective barrier against penetration of water and chlorides.</li> <li>■ Long open time - up to 16 hours.</li> <li>■ Not a vapor barrier.</li> <li>■ Can be used exterior on-grade.</li> <li>■ Contains corrosion inhibitors.</li> <li>■ Excellent bonding bridge for cement or epoxy based repair mortars.</li> <li>■ High strength, unaffected by moisture when cured.</li> <li>■ Spray, brush or roller application.</li> <li>■ Non-flammable, solvent free.</li> </ul>
<b>Coverage</b>	<p><b>Bonding agent:</b> minimum (theoretical) on smooth, even substrate 80 ft.<sup>2</sup>/gal. (=20 mils thickness). Coverage will vary depending on substrate profile and porosity.</p> <p><b>Reinforcement Protection:</b> 40 ft.<sup>2</sup>/gal. (=20 mils thickness) (2 coat application).</p>
<b>Packaging</b>	<p>3.5 gal. unit. (47.6 fl. oz. Comp. A + 122.1 fl. oz. Comp. B + 46.82 lb. Comp. C) Comp. A + B in carton, Comp. C in multi-wall bag.</p> <p>1.65 gal. unit. (22.7 fl. oz. A + 57.6 fl. oz. B + 4 bags @ 5.5 lb.) Factory-proportioned units in a pail.</p>

### Typical Data (Material and curing conditions @ 73°F and 50% R.H.)

RESULTS MAY DIFFER BASED UPON STATISTICAL VARIATIONS DEPENDING UPON MIXING METHODS AND EQUIPMENT, TEMPERATURE, APPLICATION METHODS, TEST METHODS, ACTUAL SITE CONDITIONS AND CURING CONDITIONS.

<b>Shelf Life</b>	1 year in original, unopened packaging.		
<b>Storage</b>	Store dry at 40°-95°F (4°-35°C). Condition material to 65°-75°F (18°-24°C) before using. If components A and B are frozen, discard. Protect Component C from humidity.		
<b>Color</b>	Concrete gray		
<b>Density (Mixed)</b>	125 lb./ft. <sup>3</sup> (2.0 kg.)		
<b>Pot Life</b>	Approximately 90 minutes		
<b>Compressive Strength (ASTM C-109)</b>	3 days	4500 psi	(31.0 MPa)
	7 days	6500 psi	(44.8 MPa)
	28 days	8500 psi	(58.6 MPa)
<b>Flexural Strength (ASTM C-348)</b>	28 days	1250 psi	(8.6 MPa)
<b>Splitting Tensile Strength (ASTM C-496)</b>	28 days	600 psi	(4.1 MPa)
<b>Important Data for Sika Armatec 110 as a Corrosion Protective Coating</b>			
<b>Water</b>	Water Permeability at 10 bar (145 psi)	8.92 x 10 <sup>-15</sup>	ft./sec.
	Control	7.32 x 10 <sup>-10</sup>	ft./sec.
	Water vapor diffusion coefficient μ H <sub>2</sub> O	110	
<b>Carbon Dioxide</b>	Carbon dioxide diffusion coefficient μ CO <sub>2</sub>	14000	
<b>TEST DATA: Time-to-Corrosion Study</b>			
- Sika® Armatec® 110 more than tripled the time to corrosion			
- Reduced corrosion rate by over 40%			



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## Important Data for Sika® Armatec® 110 as a Bonding Agent

<b>Bond Strength (ASTM C882)</b>		<b>14 days moist cure, plastic concrete to hardened concrete:</b>	
Wet on Wet	2800 psi	(19.3 MPa)	
24 hr. Open Time	2600 psi	(17.9 MPa)	
<b>Bond of Steel Reinforcement to Concrete (Pullout Test):</b>			
Sika® Armatec® 110 Coated	625 psi	(4.3 MPa)	
Epoxy Coated	508 psi	(3.5 MPa)	
Plain Reinforcement	573 psi	(3.95 MPa)	

## How to Use

<b>Surface Preparation</b>	<p><b>Cementitious substrates:</b> Should be cleaned and prepared to achieve a laitance and contaminant-free surface prepared in accordance with the requirements specified by the overlay or repair material by blast cleaning or equivalent mechanical means. Substrate must be saturated surface dry (SSD) with no standing water.</p> <p><b>Steel:</b> Should be fully exposed and have all corrosion removed by blast cleaning or other means of mechanical abrasion</p>								
<b>Mixing</b>	Shake contents of both Component 'A' and Component 'B'. Empty entire contents of both Component 'A' and Component 'B' into a clean, dry mixing pail. Mix thoroughly for 30 seconds with a Sika paddle on a low speed (400-600 rpm) drill. Slowly add the entire contents of Component 'C' while continuing to mix for 3 minutes until blend is uniform and free of lumps. Mix only that quantity that can be applied within its pot life.								
<b>Application</b>	<p><b>As a bonding agent</b> - Apply by stiff-bristle brush or broom. Spray apply with Goldblatt Pattern Pistol or equal equipment. For best results, work the bonding slurry well into the substrate to ensure complete coverage of all surface irregularities. Apply the freshly mixed patching mortar or concrete wet on wet, or up to the maximum recommended open time, onto the bonding slurry.</p> <p>Maximum recommended open time between application of Armatec® 110 and patching mortar or concrete:</p> <table> <tr> <td>80°-95°F (26°-35°C)</td><td>6 hours</td></tr> <tr> <td>65°-79°F (18°-26°C)</td><td>12 hours</td></tr> <tr> <td>50°-64°F (10°-17°C)</td><td>16 hours</td></tr> <tr> <td>40°-49°F (4°-9°C)</td><td>wet-on-wet</td></tr> </table> <p><b>For corrosion protection only</b> - Apply by stiff-bristle brush or spray at 80 ft.<sup>2</sup>/gal. (20 mils). Take special care to properly coat the underside of the totally exposed steel. Allow coating to dry 2-3 hours at 73°F, then apply a second coat at the same coverage. Allow to dry again before the repair mortar or concrete is applied. Pour or place repair within 7 days.</p>	80°-95°F (26°-35°C)	6 hours	65°-79°F (18°-26°C)	12 hours	50°-64°F (10°-17°C)	16 hours	40°-49°F (4°-9°C)	wet-on-wet
80°-95°F (26°-35°C)	6 hours								
65°-79°F (18°-26°C)	12 hours								
50°-64°F (10°-17°C)	16 hours								
40°-49°F (4°-9°C)	wet-on-wet								
<b>Limitations</b>	<ul style="list-style-type: none"> <li>Substrate and ambient temperature: Minimum 40°F (5°C).</li> <li>Maximum 95°F (35°C).</li> <li>Minimum thickness: As a bonding agent 20 mils.</li> <li>For reinforcement protection 40 mils.</li> <li>(2 coats, 20 mils each).</li> <li>Not recommended for use with expansive grouts.</li> <li>Use of semi-dry mortars onto Sika® Armatec® 110 EpoCem must be applied "wet on wet".</li> <li>When used in overhead applications with hand placed patching mortars, use "wet on wet" for maximum mortar built thickness.</li> <li>Substrate profile as specified by the overlay or repair material is still required.</li> <li>As with all cement based materials, avoid contact with aluminum to prevent adverse chemical reaction and possible product failure. Insulate potential areas of contact by coating aluminum bars, rails, posts etc. with an appropriate epoxy such as Sikadur® Hi-Mod 32.</li> </ul>								

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## **Appendix B**

### **Wage Rates**

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

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

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

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

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

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

November 29, 2006

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

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

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

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

**Forklift Operator:**

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

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

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

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



# CONNECTICUT DEPARTMENT OF

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## STATUTE 31-55a

### - SPECIAL NOTICE -

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

#### Connecticut General Statute 31-55a - Annual adjustments to wage rates by contractor

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

- The prevailing wage rates applicable to any contract or subcontract awarded on or after October 1, 2002, shall be adjusted each July 1st for the duration of any project which was originally advertised for
- Each contractor affected by the above requirement shall pay the annual adjusted prevailing wage rate on or before July 1st, as posted by the Department of Labor.
- It is the **contractor's** responsibility to obtain the annual adjusted prevailing wage rate information from the Department of Labor's Web Site. The annual adjustments will be posted on the Department of Labor Web Site. Those without internet access, please contact the division listed below.
- The Department of Labor will continue to issue the initial prevailing wage rate schedule to contractors. All subsequent annual adjustments will be posted on our Web Site for contractor reference.

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

[Workplace Laws](#)

**200 Folly Brook Boulevard, Wethersfield, CT 06109 / Phone: 860-263-6000**

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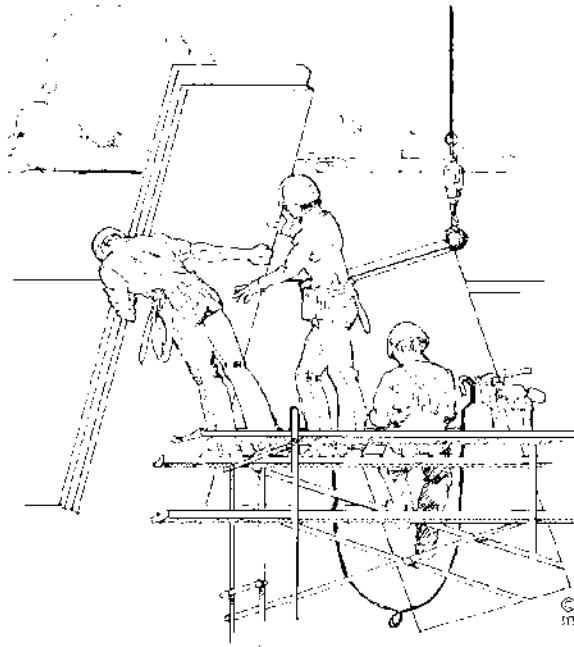
## ~NOTICE~

### TO ALL CONTRACTING AGENCIES

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

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

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



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

*CONTRACTING AGENCY CERTIFICATION FORM*

I, \_\_\_\_\_, acting in my official capacity as \_\_\_\_\_,  
authorized representative title

for \_\_\_\_\_, located at \_\_\_\_\_,  
contracting agency address

do hereby certify that the total dollar amount of work to be done in connection with

\_\_\_\_\_, located at \_\_\_\_\_,  
project name and number address

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

*CONTRACTOR INFORMATION*

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Authorized Representative: \_\_\_\_\_

Approximate Starting Date: \_\_\_\_\_

Approximate Completion Date: \_\_\_\_\_

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

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

Date Issued: \_\_\_\_\_

## Information Bulletin

### *Occupational Classifications*

The Connecticut Department of Labor has the responsibility to properly determine "job classification" on prevailing wage projects covered under C.G.S. Section 31-53.

*Note: This information is intended to provide a sample of some occupational classifications for guidance purposes only. It is not an all-inclusive list of each occupation's duties. This list is being provided only to highlight some areas where a contractor may be unclear regarding the proper classification.*

Below are additional clarifications of specific job duties performed for certain classifications:

- **ASBESTOS WORKERS**

Applies all insulating materials, protective coverings, coatings and finishes to all types of mechanical systems.

- **ASBESTOS INSULATOR**

Handle, install apply, fabricate, distribute, prepare, alter, repair, dismantle, heat and frost insulation, including penetration and fire stopping work on all penetration fire stop systems.

- **BOILERMAKERS**

Erects hydro plants, incomplete vessels, steel stacks, storage tanks for water, fuel, etc. Builds incomplete boilers, repairs heat exchanges and steam generators.

- **BRICKLAYERS, CEMENT MASONS, CEMENT FINISHERS, MARBLE MASONS, PLASTERERS, STONE MASONS, PLASTERERS. STONE MASONS, TERRAZZO WORKERS, TILE SETTERS**

Lays building materials such as brick, structural tile and concrete cinder, glass, gypsum, terra cotta block. Cuts, tools and sets marble, sets stone, finishes concrete, applies decorative steel, aluminum and plastic tile, applies cements, sand, pigment and marble chips to floors, stairways, etc.

- **CARPENTERS, MILLWRIGHTS. PILEDRIVERMEN. LATHERS. RESILIENT FLOOR LAYERS, DOCK BUILDERS, DIKERS, DIVER TENDERS**

Constructs, erects, installs and repairs structures and fixtures of wood, plywood and wallboard. Installs, assembles, dismantles, moves industrial machinery. Drives piling into ground to provide foundations for structures such as buildings and bridges, retaining walls for earth embankments, such as cofferdams. Fastens wooden, metal or rockboard lath to walls, ceilings and partitions of buildings, acoustical tile layer, concrete form builder. Applies firestopping materials on fire resistive joint systems only. Installation of curtain/window walls only where attached to wood or metal studs. Installation of insulated material of all types whether blown, nailed or attached in other ways to walls, ceilings and floors of buildings. Assembly and installation of modular furniture/furniture systems. Free-standing furniture is not covered. This includes free standing: student chairs, study top desks, book box desks, computer furniture, dictionary stand, atlas stand, wood shelving, two-position information access station, file cabinets, storage cabinets, tables, etc.

- **CLEANING LABORER**

The clean up of any construction debris and the general cleaning, including sweeping, wash down, mopping, wiping of the construction facility, washing, polishing, dusting, etc., prior to the issuance of a certificate of occupancy falls under the *Labor classification*.

- **DELIVERY PERSONNEL**

If delivery of supplies/building materials is to one common point and stockpiled there, prevailing wages are not required. If the delivery personnel are involved in the distribution of the material to multiple locations within the construction site then they would have to be paid prevailing wages for the type of work performed: laborer, equipment operator, electrician, ironworker, plumber, etc.

An example of this would be where delivery of drywall is made to a building and the delivery personnel distribute the drywall from one "stockpile" location to further sub-locations on each floor. Distribution of material around a construction site is the job of a laborer/tradesman and not a delivery personnel.

- **ELECTRICIANS**

Install, erect, maintenance, alteration or repair of any wire, cable, conduit, etc., which generates, transforms, transmits or uses electrical energy for light, heat, power or other purposes, including the Installation or maintenance of telecommunication, LAN wiring or computer equipment, and low voltage wiring.

**\*License required per Connecticut General Statutes: E-1,2 L-5,6 C-5,6 T-1,2 L-1,2 V-1,2,7,8,9.**

- **ELEVATOR CONSTRUCTORS**

Install, erect, maintenance and repair of all types of elevators, escalators, dumb waiters and moving walks. **\*License required by Connecticut General Statutes: R-1,2,5,6.**

- **FORK LIFT OPERATOR**

Laborers Group 4) Mason Tenders - operates forklift solely to assist a mason to a maximum height of nine (9) feet only.

Power Equipment Operator Group 9 - operates forklift to assist any trade, and to assist a mason to a height over nine (9) feet.

- **GLAZIERS**

Glazing wood and metal sash, doors, partitions, and 2 story aluminum storefronts. Installs glass windows, skylights, store fronts and display cases or surfaces such as building fronts, interior walls, ceilings and table tops and metal store fronts. Installation of aluminum window walls and curtain walls is the "joint" work of glaziers and ironworkers which requires either a blended rate or equal composite workforce.

- **IRONWORKERS**

Erection, installation and placement of structural steel, precast concrete, miscellaneous iron, ornamental iron, metal curtain wall, rigging and reinforcing steel. Handling, sorting, and installation of reinforcing steel (rebar). Metal bridge rail (traffic), metal bridge handrail, and decorative security fence installation. Installation of aluminum window walls and curtain walls is the "joint" work of glaziers and ironworkers which requires either a blended rate or equal composite workforce. Insulated metal and insulated composite panels are still installed by the Ironworker.

- **INSULATOR**

Installing fire stopping systems/materials for "Penetration Firestop Systems": transit to cables, electrical conduits, insulated pipes, sprinkler pipe penetrations, ductwork behind radiation, electrical cable trays, fire rated pipe penetrations, natural polypropylene, HVAC ducts, plumbing bare metal, telephone and communication wires, and boiler room ceilings. Past practice using the applicable licensed trades, Plumber, Sheet Metal, Sprinkler Fitter, and Electrician, is not inconsistent with the Insulator classification and would be permitted.

- **LABORERS**

Acetylene burners, asphalt rakers, chain saw operators, concrete and power buggy operator, concrete saw operator, fence and guard rail erector (except metal bridge rail (traffic), metal bridge handrail, and decorative security fence installation.), hand operated concrete vibrator operator, mason tenders, pipelayers (installation of storm drainage or sewage lines on the street only), pneumatic drill operator, pneumatic gas and electric drill operator, powermen and wagon drill operator, air track operator, block paver, curb setters, blasters, concrete spreaders.

- **PAINTERS**

Maintenance, preparation, cleaning, blasting (water and sand, etc.), painting or application of any protective coatings of every description on all bridges and appurtenances of highways, roadways, and railroads. Painting, decorating, hardwood finishing, paper hanging, sign writing, scenic art work and drywall hhg for any and all types of building and residential work.

- **LEAD PAINT REMOVAL**

Painter's Rate

1. Removal of lead paint from bridges.
2. Removal of lead paint as preparation of any surface to be repainted.
3. Where removal is on a Demolition project prior to reconstruction.

Laborer's Rate

1. Removal of lead paint from any surface NOT to be repainted.
2. Where removal is on a *TOTAL* Demolition project only.

- **PLUMBERS AND PIPEFITTERS**

Installation, repair, replacement, alteration or maintenance of all plumbing, heating, cooling and piping. ***\*License required per Connecticut General Statutes: P-1,2,6,7,8,9 J-1,2,3,4 SP-1,2 S-1,2,3,4,5,6,7,8 B-1,2,3,4 D-1,2,3,4.***

- **POWER EQUIPMENT OPERATORS**

Operates several types of power construction equipment such as compressors, pumps, hoists, derricks, cranes, shovels, tractors, scrapers or motor graders, etc. Repairs and maintains equipment. **\*License required, crane operators only, per Connecticut General Statutes.**

- **ROOFERS**

Covers roofs with composition shingles or sheets, wood shingles, slate or asphalt and gravel to waterproof roofs, including preparation of surface. (tear-off and/or removal of any type of roofing and/or clean-up of any and all areas where a roof is to be relaid)

- **SHEETMETAL WORKERS**

Fabricate, assemble, install and repair sheetmetal products and equipment in such areas as ventilation, air-conditioning, warm air heating, restaurant equipment, architectural sheet metal work, sheetmetal roofing, and aluminum gutters.

Fabrication, handling, assembling, erecting, altering, repairing, etc. of coated metal material panels and composite metal material panels when used on building exteriors and interiors as soffits, fascia, louvers, partitions, wall panel siding, canopies, cornice, column covers, awnings, beam covers, cladding, sun shades, lighting troughs, spires, ornamental roofing, metal ceilings, mansards, copings, ornamental and ventilation hoods, vertical and horizontal siding panels, trim, etc.

The sheet metal classification also applies to the vast variety of coated metal material panels and composite metal material panels that have evolved over the years as an alternative to conventional ferrous and non-ferrous metals like steel, iron, tin, copper, brass, bronze, aluminum, etc. Insulated metal and insulated composite panels are still installed by the Iron Worker. Fabrication, handling, assembling, erecting, altering, repairing, etc. of architectural metal roof, standing seam roof, composite metal roof, metal and composite bathroom/toilet partitions, aluminum gutters, metal and composite lockers and shelving, kitchen equipment, and walk-in coolers.

- **SPRINKLER FITTERS**

Installation, alteration, maintenance and repair of fire protection sprinkler systems.

**\*License required per Connecticut General Statutes: F-1,2,3,4.**

- **TILE MARBLE AND TERRAZZO FINISHERS**

Assists and tends the tile setter, marble mason and terrazzo worker in the performance of their duties.

- **TRUCK DRIVERS**

**Definitions:**

1) “Site of the work” (29 Code of Federal Regulations (CFR) 5.2(l)(b) is the physical place or places where the building or work called for in the contract will remain and any other site where a significant portion of the building or work is constructed, provided that such site is established specifically for the performance of the contract or project;

(a) Except as provided in paragraph (l) (3) of this section, job headquarters, tool yards, batch plants, borrow pits, etc. are part of the “site of the work”; provided they are dedicated exclusively, or nearly so, to the performance of the contract or project, and provided they are adjacent to “the site of work” as defined in paragraph (e)(1) of this section;

(b) Not included in the “site of the work” are permanent home offices, branch plant establishments, fabrication plants, tool yards etc, of a contractor or subcontractor whose location and continuance in operation are determined wholly without regard to a particular State or political subdivision contract or uncertain and indefinite periods of time involved of a few seconds or minutes duration and where the failure to count such time is due to consideration justified by industrial realities (29 CFR 785.47)

2) “Engaged to wait” is waiting time that belongs to and is controlled by the employer which is an integral part of the job and is therefore compensable as hours worked. (29 CFR 785.15)

3) “Waiting to be engaged” is waiting time that an employee can use effectively for their own purpose and is not compensable as hours worked. (29 CFR 785.16)

4) “De Minimus” is a rule that recognizes that unsubstantial or insignificant periods of time which cannot as a practical administrative matter be precisely recorded for payroll purposes, may be disregarded. This rule applies only where there are uncertain and indefinite periods of time involved of a short duration and where the failure to count such time is due to consideration justified by worksite realities. For example, with respect to truck drivers on prevailing wage sites, this is typically less than 15 minutes at a time.

**Coverage of Truck Drivers on State or Political subdivision Prevailing Wage Projects**

**Truck drivers are covered for payroll purposes under the following conditions:**

- Truck Drivers for time spent working on the site of the work.
- Truck Drivers for time spent loading and/or unloading materials and supplies on the site of the work, if such time is not de minimus

- Truck drivers transporting materials or supplies between a facility that is deemed part of the site of the work and the actual construction site.
- Truck drivers transporting portions of the building or work between a site established specifically for the performance of the contract or project where a significant portion of such building or work is constructed and the physical places where the building or work outlined in the contract will remain.

*For example: Truck drivers delivering asphalt are covered under prevailing wage while "engaged to wait" on the site and when directly involved in the paving operation, provided the total time is not "de minimus"*

**Truck Drivers are not covered in the following instances:**

- Material delivery truck drivers while off "the site of the work"
- Truck Drivers traveling between a prevailing wage job and a commercial supply facility while they are off the "site of the work"
- Truck drivers whose time spent on the "site of the work" is de minimus, such as under 15 minutes at a time, merely to drop off materials or supplies, including asphalt.

*These guidelines are similar to U.S. Labor Department policies. The application of these guidelines may be subject to review based on factual considerations on a case by case basis.*

**For example:**

- Material men and deliverymen are not covered under prevailing wage as long as they are not directly involved in the construction process. If, they unload the material, they would then be covered by prevailing wage for the classification they are performing work in: laborer, equipment operator, etc.
- Hauling material off site is not covered provided they are not dumping it at a location outlined above.
- Driving a truck on site and moving equipment or materials on site would be considered covered work, as this is part of the construction process.

*Any questions regarding the proper classification should be directed to:*

*Public Contract Compliance Unit  
Wage and Workplace Standards Division  
Connecticut Department of Labor  
200 Folly Brook Blvd, Wethersfield, CT 06109  
(860) 263-6543*

Connecticut Department of Labor  
Wage and Workplace Standards Division  
FOOTNOTES

Please Note: If the “Benefits” listed on the schedule for the following occupations includes a letter(s) (+ a or + a+b for instance), refer to the information below.

Benefits to be paid at the appropriate prevailing wage rate for the listed occupation.

If the “Benefits” section for the occupation lists only a dollar amount, disregard the information below.

**Bricklayers, Cement Masons, Cement Finishers, Concrete Finishers, Stone Masons**  
(Building Construction) and  
(Residential- Hartford, Middlesex, New Haven, New London and Tolland Counties)

- a. Paid Holiday: Employees shall receive 4 hours for Christmas Eve holiday provided the employee works the regularly scheduled day before and after the holiday. Employers may schedule work on Christmas Eve and employees shall receive pay for actual hours worked in addition to holiday pay.

**Elevator Constructors: Mechanics**

- a. Paid Holidays: New Year’s Day, Memorial Day, Independence Day, Labor Day, Veterans’ Day, Thanksgiving Day, Christmas Day, plus the Friday after Thanksgiving.
- b. Vacation: Employer contributes 8% of basic hourly rate for 5 years or more of service or 6% of basic hourly rate for 6 months to 5 years of service as vacation pay credit.

**Glaziers**

- a. Paid Holidays: Labor Day and Christmas Day.

**Power Equipment Operators**  
(Heavy and Highway Construction & Building Construction)

- a. Paid Holidays: New Year’s Day, Good Friday, Memorial day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day, provided the employee works 3 days during the week in which the holiday falls, if scheduled, and if scheduled, the working day before and the working day after the holiday. Holidays falling on Saturday may be observed on Saturday, or if the employer so elects, on the preceding Friday.

### **Ironworkers**

- a. Paid Holiday: Labor Day provided employee has been on the payroll for the 5 consecutive work days prior to Labor Day.

### **Laborers (Tunnel Construction)**

- a. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day. No employee shall be eligible for holiday pay when he fails, without cause, to work the regular work day preceding the holiday or the regular work day following the holiday.

### **Roofers**

- a. Paid Holidays: July 4<sup>th</sup>, Labor Day, and Christmas Day provided the employee is employed 15 days prior to the holiday.

### **Sprinkler Fitters**

- a. Paid Holidays: Memorial Day, July 4th, Labor Day, Thanksgiving Day and Christmas Day, provided the employee has been in the employment of a contractor 20 working days prior to any such paid holiday.

### **Truck Drivers**

(Heavy and Highway Construction & Building Construction)

- a. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas day, and Good Friday, provided the employee has at least 31 calendar days of service and works the last scheduled day before and the first scheduled day after the holiday, unless excused.

Project: High School Sidewalk Reconstruction

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

ID#: H 24062

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

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

Project Number:

Project Town: Ridgefield

FAP Number:

State Number:

Project: High School Sidewalk Reconstruction

CLASSIFICATION	Hourly Rate	Benefits
01) Asbestos/Toxic Waste Removal Laborers: Asbestos removal and encapsulation (except its removal from mechanical systems which are not to be scrapped), toxic waste removers, blasters. **See Laborers Group 5 and 7**		
1) Boilermaker	33.79	34% + 8.96
1a) Bricklayer, Cement Masons, Cement Finishers, Plasterers, Stone Masons	33.48	30.21
2) Carpenters, Piledrivermen	32.60	25.34

As of: Wednesday, October 04, 2017

Project: High School Sidewalk Reconstruction

2a) Diver Tenders	32.60	25.34
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3) Divers	41.06	25.34
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03a) Millwrights	33.14	25.74
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4) Painters: (Bridge Construction) Brush, Roller, Blasting (Sand, Water, etc.), Spray	48.55	20.45
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4a) Painters: Brush and Roller	32.72	20.45
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4b) Painters: Spray Only	35.72	20.45
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4c) Painters: Steel Only	34.72	20.45
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Project: High School Sidewalk Reconstruction

4d) Painters: Blast and Spray	35.72	20.45
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4e) Painters: Tanks, Tower and Swing	34.72	20.45
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5) Electrician (Trade License required: E-1,2 L-5,6 C-5,6 T-1,2 L-1,2 V-1,2,7,8,9)	38.27	25.00+3% of gross wage
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6) Ironworkers: Ornamental, Reinforcing, Structural, and Precast Concrete Erection	35.47	33.39 + a
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7) Plumbers (Trade License required: (P-1,2,6,7,8,9 J-1,2,3,4 SP-1,2) and Pipefitters (Including HVAC Work) (Trade License required: S-1,2,3,4,5,6,7,8 B-1,2,3,4 D-1,2,3,4 G-1, G-2, G-8, G-9)	41.62	30.36
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---LABORERS----

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8) Group 1: Laborer (Unskilled), Common or General, acetylene burner, concrete specialist	29.25	19.50
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Project: High School Sidewalk Reconstruction

9) Group 2: Chain saw operators, fence and guard rail erectors, pneumatic tool operators, powdermen	29.50	19.50
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10) Group 3: Pipelayers	29.75	19.50
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11) Group 4: Jackhammer/Pavement breaker (handheld); mason tenders (cement/concrete), catch basin builders, asphalt rakers, air track operators, block paver, curb setter and forklift operators	29.75	19.50
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12) Group 5: Toxic waste removal (non-mechanical systems)	31.25	19.50
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13) Group 6: Blasters	31.00	19.50
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Group 7: Asbestos/lead removal, non-mechanical systems (does not include leaded joint pipe)	30.25	19.50
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Group 8: Traffic control signalmen	16.00	19.50
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Project: High School Sidewalk Reconstruction

Group 9: Hydraulic Drills	29.30	18.90
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---LABORERS (TUNNEL CONSTRUCTION, FREE AIR). Shield Drive and  
Liner Plate Tunnels in Free Air.---

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13a) Miners, Motormen, Mucking Machine Operators, Nozzle Men, Grout Men, Shaft & Tunnel Steel & Rodmen, Shield & Erector, Arm Operator, Cable Tenders	32.22	19.50 + a
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13b) Brakemen, Trackmen	31.28	19.50 + a
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---CLEANING, CONCRETE AND CAULKING TUNNEL---

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14) Concrete Workers, Form Movers, and Strippers	31.28	19.50 + a
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15) Form Erectors	31.60	19.50 + a
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Project: High School Sidewalk Reconstruction

---ROCK SHAFT LINING, CONCRETE, LINING OF SAME AND TUNNEL  
IN FREE AIR:---

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16) Brakemen, Trackmen, Tunnel Laborers, Shaft Laborers	31.28	19.50 + a
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17) Laborers Topside, Cage Tenders, Bellman	31.17	19.50 + a
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18) Miners	32.22	19.50 + a
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---TUNNELS, CAISSON AND CYLINDER WORK IN COMPRESSED  
AIR: ---

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18a) Blaster	38.53	19.50 + a
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19) Brakemen, Trackmen, Groutman, Laborers, Outside Lock Tender, Gauge Tenders	38.34	19.50 + a
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Project: High School Sidewalk Reconstruction

20) Change House Attendants, Powder Watchmen, Top on Iron Bolts	36.41	19.50 + a
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21) Mucking Machine Operator	39.11	19.50 + a
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---TRUCK DRIVERS---(\*see note below)

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Two axle trucks	29.13	22.32 + a
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Three axle trucks; two axle ready mix	29.23	22.32 + a
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Three axle ready mix	29.28	22.32 + a
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Four axle trucks, heavy duty trailer (up to 40 tons)	29.33	22.32 + a
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Project: High School Sidewalk Reconstruction

Four axle ready-mix	29.38	22.32 + a
<hr/>		
Heavy duty trailer (40 tons and over)	29.58	22.32 + a
<hr/>		
Specialized earth moving equipment other than conventional type on-the road trucks and semi-trailer (including Euclids)	29.38	22.32 + a
<hr/>		
---POWER EQUIPMENT OPERATORS----		
<hr/>		
Group 1: Crane handling or erecting structural steel or stone, hoisting engineer (2 drums or over), front end loader (7 cubic yards or over), Work Boat 26 ft. & Over, Tunnel Boring Machines. (Trade License Required)	39.30	24.05 + a
<hr/>		
Group 2: Cranes (100 ton rate capacity and over); Excavator over 2 cubic yards; Piledriver (\$3.00 premium when operator controls hammer); Bauer Drill/Caisson. (Trade License Required)	38.98	24.05 + a
<hr/>		
Group 3: Excavator/Backhoe under 2 cubic yards; Cranes (under 100 ton rated capacity), Gradall; Master Mechanic; Hoisting Engineer (all types of equipment where a drum and cable are used to hoist or drag material regardless of motive power of operation), Rubber Tire Excavator (Drott-1085 or similar); Grader Operator; Bulldozer Fine Grade (slopes, shaping, laser or GPS, etc.). (Trade License Required)	38.24	24.05 + a
<hr/>		

Project: High School Sidewalk Reconstruction

Group 4: Trenching Machines; Lighter Derrick; Concrete Finishing Machine; CMI Machine or Similar; Koehring Loader (Skooper)	37.85	24.05 + a
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Group 5: Specialty Railroad Equipment; Asphalt Paver; Asphalt Spreader; Asphalt Reclaiming Machine; Line Grinder; Concrete Pumps; Drills with Self Contained Power Units; Boring Machine; Post Hole Digger; Auger; Pounder; Well Digger; Milling Machine (over 24" Mandrell)	37.26	24.05 + a
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Group 5 continued: Side Boom; Combination Hoe and Loader; Directional Driller.	37.26	24.05 + a
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Group 6: Front End Loader (3 up to 7 cubic yards); Bulldozer (rough grade dozer).	36.95	24.05 + a
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Group 7: Asphalt Roller; Concrete Saws and Cutters (ride on types); Vermeer Concrete Cutter; Stump Grinder; Scraper; Snooper; Skidder; Milling Machine (24" and Under Mandrel).	36.61	24.05 + a
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Group 8: Mechanic, Grease Truck Operator, Hydroblaster, Barrier Mover, Power Stone Spreader; Welder; Work Boat under 26 ft.; Transfer Machine.	36.21	24.05 + a
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Group 9: Front End Loader (under 3 cubic yards), Skid Steer Loader regardless of attachments (Bobcat or Similar); Fork Lift, Power Chipper; Landscape Equipment (including hydroseeder).	35.78	24.05 + a
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Project: High School Sidewalk Reconstruction

Group 10: Vibratory Hammer, Ice Machine, Diesel and Air Hammer, etc.	33.74	24.05 + a
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Group 11: Conveyor, Earth Roller; Power Pavement Breaker (whiphammer), Robot Demolition Equipment.	33.74	24.05 + a
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Group 12: Wellpoint Operator.	33.68	24.05 + a
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Group 13: Compressor Battery Operator.	33.10	24.05 + a
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Group 14: Elevator Operator; Tow Motor Operator (Solid Tire No Rough Terrain).	31.96	24.05 + a
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Group 15: Generator Operator; Compressor Operator; Pump Operator; Welding Machine Operator; Heater Operator.	31.55	24.05 + a
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Group 16: Maintenance Engineer/Oiler	30.90	24.05 + a
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Project: High School Sidewalk Reconstruction

Group 17: Portable asphalt plant operator; portable crusher plant operator; portable concrete plant operator.	35.21	24.05 + a
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Group 18: Power Safety Boat; Vacuum Truck; Zim Mixer; Sweeper; (minimum for any job requiring CDL license).	32.79	24.05 + a
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\*\*NOTE: SEE BELOW

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

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20) Lineman, Cable Splicer, Technician	47.14	6.5% + 20.98
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21) Heavy Equipment Operator	42.43	6.5% + 18.84
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22) Equipment Operator, Tractor Trailer Driver, Material Men	40.07	6.5% + 18.27
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Project: High School Sidewalk Reconstruction

23) Driver Groundmen	25.93	6.5% + 8.53
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23a) Truck Driver	35.36	6.5% + 16.88
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---LINE CONSTRUCTION---

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24) Driver Groundmen	30.92	6.5% + 9.70
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25) Groundmen	22.67	6.5% + 6.20
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26) Heavy Equipment Operators	37.10	6.5% + 10.70
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27) Linemen, Cable Splicers, Dynamite Men	41.22	6.5% + 12.20
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Project: High School Sidewalk Reconstruction

28) Material Men, Tractor Trailer Drivers, Equipment Operators

35.04

6.5% + 10.45

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**Project: High School Sidewalk Reconstruction**

*Welders: Rate for craft to which welding is incidental.*

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

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

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

***1) Crane handling or erecting structural steel or stone; hoisting engineer (2 drums or over)***

***2) Cranes (100 ton rate capacity and over) Bauer Drill/Caisson***

***3) Cranes (under 100 ton rated capacity)***

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

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

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

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

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

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

Apprentices duly registered under the Commissioner of Labor's regulations on "Work Training Standards for Apprenticeship and Training Programs" Section 31-51-d-1 to 12, are allowed to be paid the appropriate percentage of the prevailing journeymen hourly base and the full fringe benefit rate, providing the work site ratio shall not be less than one full-time journeyman instructing and supervising the work of each apprentice in a specific trade.

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

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

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

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

*The annual adjustments will be posted on the Department of Labor's Web page: [www.ct.gov/dol](http://www.ct.gov/dol).*

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

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

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

Project: High School Sidewalk Reconstruction

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

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

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

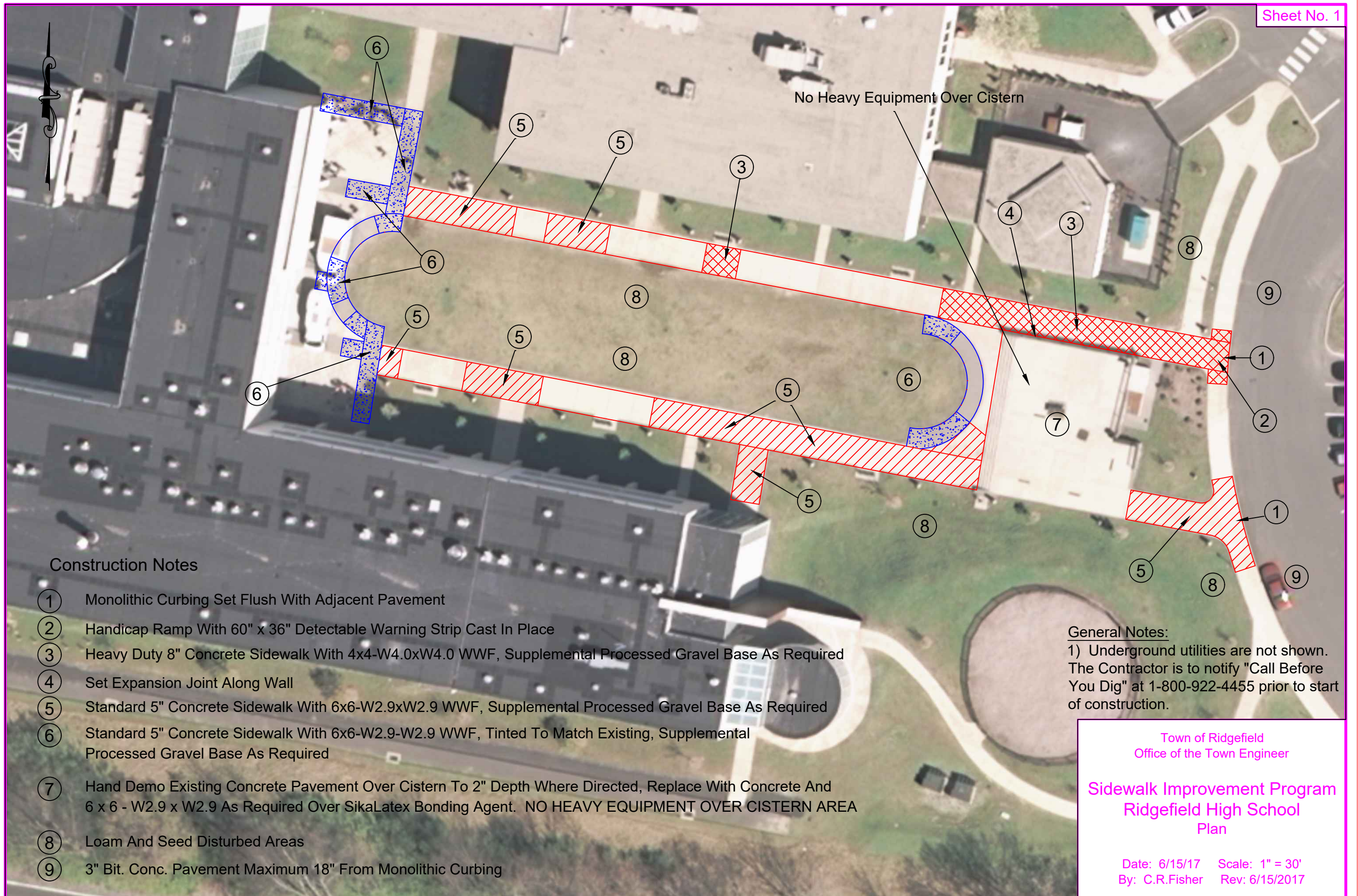
Reporting and payment of wages is required regardless of any contractual relationship alleged to exist between the contractor and such person.

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

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

**Appendix C****Site Plan, Details, Site Photographs**

Note: Site photographs are provided only for illustrative purposes only and are not intended to relieve the bidder of his obligation to visit the site prior to submitting a bid.



### Construction Notes

- ① Monolithic Curbing Set Flush With Adjacent Pavement
- ② Handicap Ramp With 60" x 36" Detectable Warning Strip Cast In Place
- ③ Heavy Duty 8" Concrete Sidewalk With 4x4-W4.0xW4.0 WWF, Supplemental Processed Gravel Base As Required
- ④ Set Expansion Joint Along Wall
- ⑤ Standard 5" Concrete Sidewalk With 6x6-W2.9xW2.9 WWF, Supplemental Processed Gravel Base As Required
- ⑥ Standard 5" Concrete Sidewalk With 6x6-W2.9-W2.9 WWF, Tinted To Match Existing, Supplemental Processed Gravel Base As Required
- ⑦ Hand Demo Existing Concrete Pavement Over Cistern To 2" Depth Where Directed, Replace With Concrete And 6 x 6 - W2.9 x W2.9 As Required Over SikaLatex Bonding Agent. NO HEAVY EQUIPMENT OVER CISTERN AREA
- ⑧ Loam And Seed Disturbed Areas
- ⑨ 3" Bit. Conc. Pavement Maximum 18" From Monolithic Curbing

### General Notes:

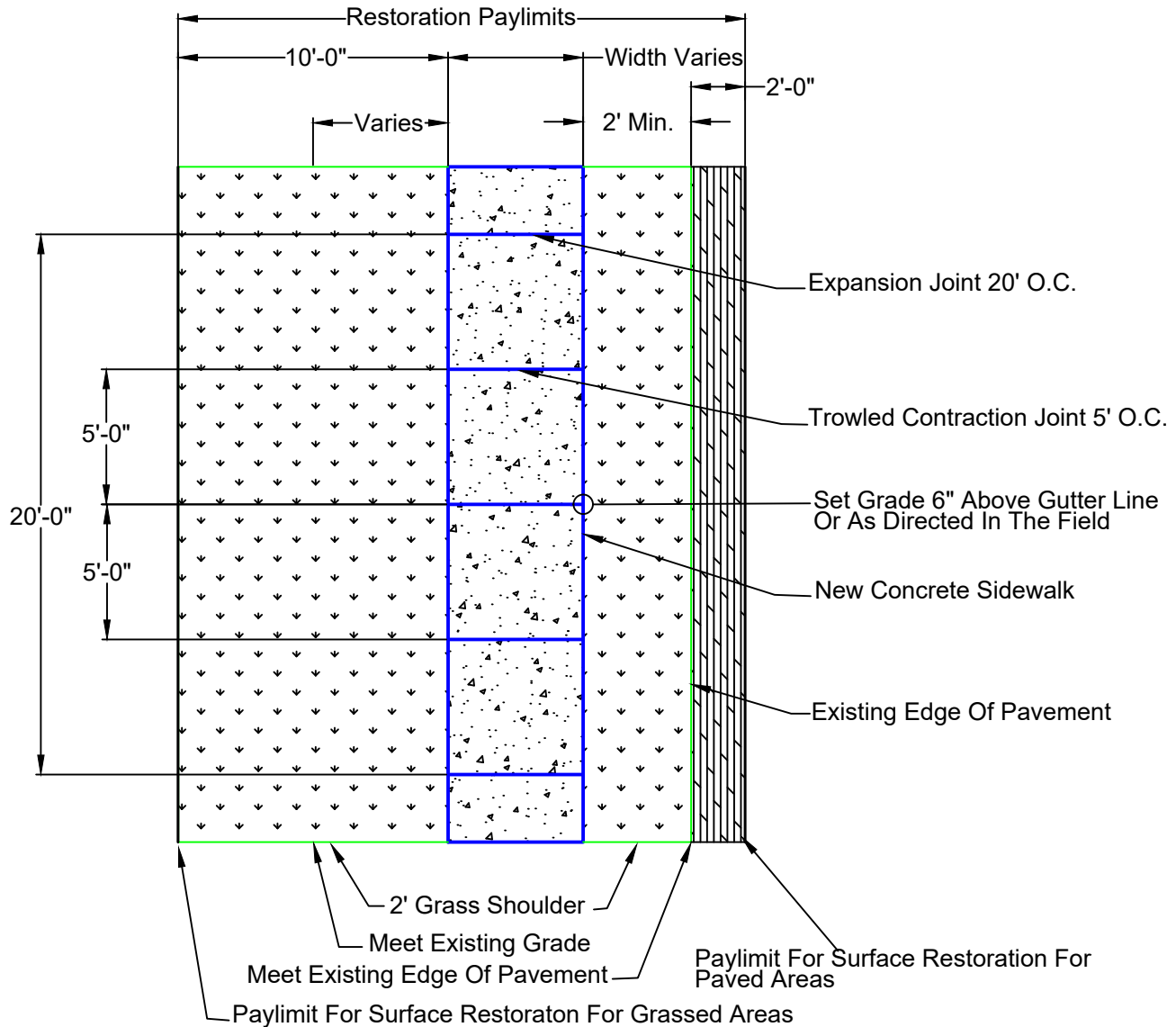
1) Underground utilities are not shown. The Contractor is to notify "Call Before You Dig" at 1-800-922-4455 prior to start of construction.

Town of Ridgefield  
Office of the Town Engineer

Sidewalk Improvement Program  
Ridgefield High School  
Plan

Date: 6/15/17 Scale: 1" = 30'  
By: C.R.Fisher Rev: 6/15/2017



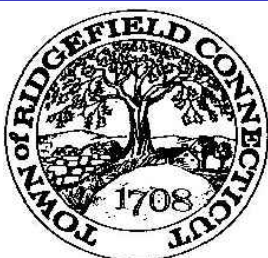


*Plan*

## Typical Concrete Sidewalk Details

Not To Scale

Note: All exposed surfaces of new concrete sidewalk shall be treated with "Saltguard" as distributed by A. H. Harris as per manufacturer's recommendations

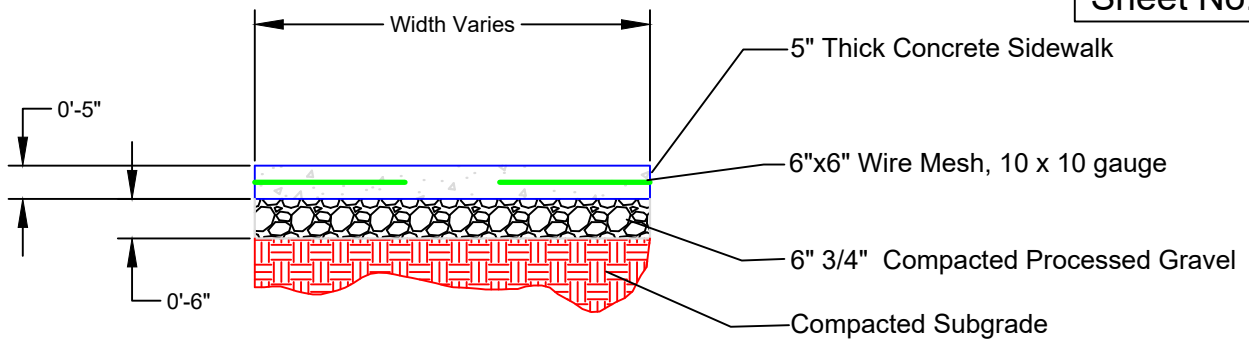


Town of Ridgefield, Office of the Town Engineer  
Sidewalk Reconstruction Program

## Typical Details

Concrete Sidewalk Installation

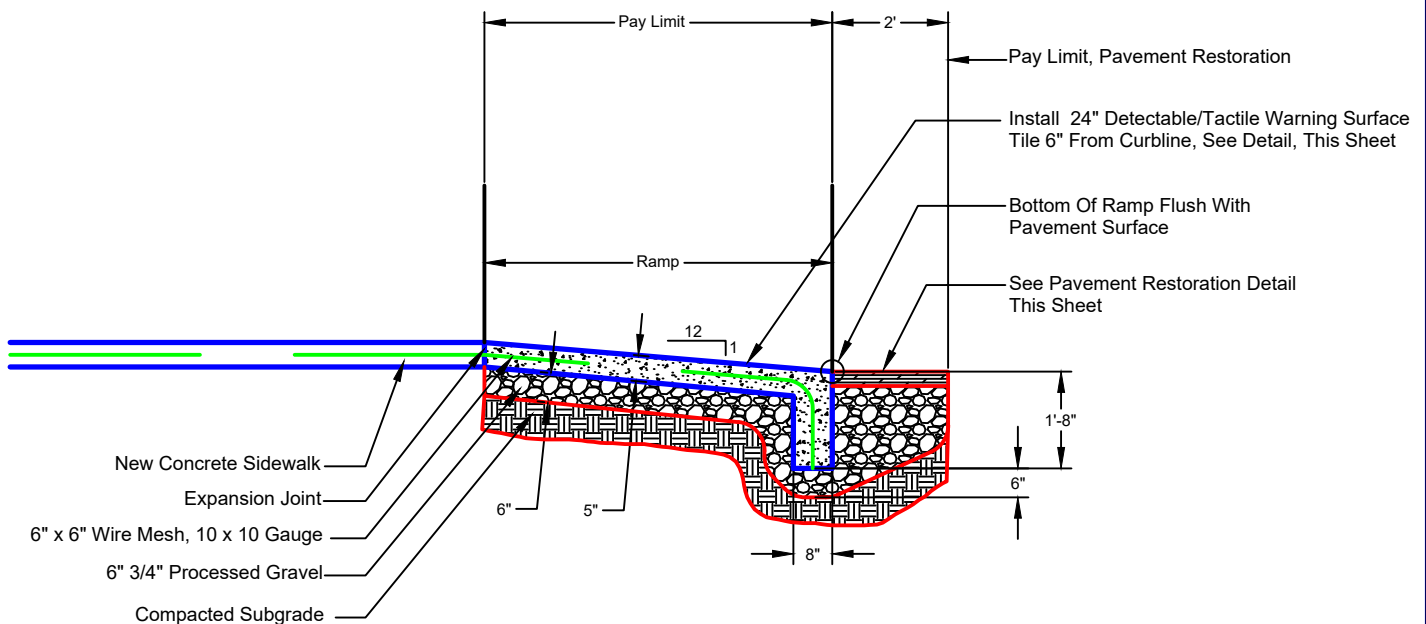
Date: May 1, 2015 Scale: As Noted By: C.R. Fisher



- 1) All concrete shall have 5% to 7% air entrainment and shall have a 28 day strength of 3,500 psi.
- 2) Concrete sidewalk surfaces shall be broom finished.
- 3) All disturbed areas to be loamed and seeded.
- 4) Concrete driveway aprons, where required, shall be 8" thick or as specified on the plans.
- 5) Sidewalk to have 1/4" per foot cross-slope.

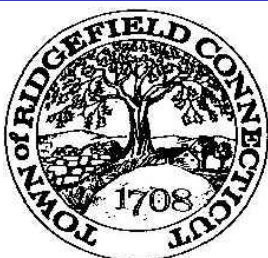
### Typical Concrete Sidewalk Cross-Section

Not To Scale



### Sidewalk Ramp Detail

Not To Scale



Town of Ridgefield, Office of the Town Engineer  
Sidewalk Reconstruction Program

## Typical Details

Concrete Sidewalk Installation

Date: May 1, 2015 Scale: As Noted By: C.R. Fisher



Standard Sidewalk and Tinted Concrete Sidewalk Replacement Looking East at the Cistern Area



Standard Sidewalk Replacement Looking West



Standard Sidewalk Replacement Looking Southwest



Tinted Concrete Sidewalk Replacement Adjacent to the Building



Tinted Concrete Sidewalk Replacement Adjacent to the Building



Standard Concrete Sidewalk Replacement Looking West



Heavy-Duty Concrete Sidewalk and Tinted Concrete Sidewalk Replacement Looking East



Heavy-Duty Concrete and Handicap Ramp looking South



Cistern Area

**Appendix D**  
**Project Closeout Documents**

**Contractor's Affidavit of Payment of Debts and Claims**PROJECT: *(Name and address)*

ARCHITECT'S PROJECT NUMBER:

OWNER ☐

CONTRACT FOR:

ARCHITECT ☐CONTRACTOR ☐TO OWNER: *(Name and address)*

CONTRACT DATED:

SURETY ☐OTHER ☐

STATE OF:

COUNTY OF:

The undersigned hereby certifies that, except as listed below, payment has been made in full and all obligations have otherwise been satisfied for all materials and equipment furnished, for all work, labor, and services performed, and for all known indebtedness and claims against the Contractor for damages arising in any manner in connection with the performance of the Contract referenced above for which the Owner or Owner's property might in any way be held responsible or encumbered.

**EXCEPTIONS:**

SUPPORTING DOCUMENTS ATTACHED HERETO:

CONTRACTOR: *(Name and address)*

1. Consent of Surety to Final Payment. Whenever Surety is involved, Consent of Surety is required, Consent of Surety to Final Payment may be used for this purpose.

Indicate attachment: ☐ Yes ☐ No

BY:

The following supporting documents should be attached hereto if required by the Owner: )

\_\_\_\_\_  
*(Signature of authorized representative)*\_\_\_\_\_  
*(Printed name and title)*

1. Contractor's Release or Waiver of Liens, conditional upon receipt of final payment
2. Separate Releases or Waivers of Liens from Subcontractors and material and equipment suppliers, to the extent required by the Owner, accompanied by a list thereof
3. Contractor's Affidavit of Release of Liens

Subscribed and sworn to before me on this date:

Notary Public:

My Commission Expires:

PROJECT CLOSEOUT DOCUMENTS

CD-1

***Certificate of Substantial Completion*****PROJECT:** *(Name and address)***PROJECT NUMBER:****OWNER** ☐**CONTRACT FOR:****ARCHITECT** ☐**CONTRACT DATE:****CONTRACTOR** ☐**TO OWNER:** *(Name and address)***TO CONTRACTOR:** *(Name and address)***FIELD** ☐**OTHER** ☐**PROJECT OR PORTION OF THE PROJECT DESIGNATED FOR PARTIAL OCCUPANCY OR USE SHALL INCLUDE:**

The Work performed under this Contract has been reviewed and found, to the Architect's best knowledge, information and belief, to be substantially complete. Substantial Completion is the stage in the progress of the Work when the Work or designated portion is sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended use. The date of Substantial Completion of the Project or portion designated above is the date of issuance established by this Certificate which is also the date of commencement of applicable warranties required by the Contract Documents, except as stated below:

\_\_\_\_\_  
ARCHITECT\_\_\_\_\_  
BY\_\_\_\_\_  
DATE OF ISSUANCE

A list of items to be completed or corrected is attached hereto. The failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents. Unless otherwise agreed to in writing, the date of commencement of warranties for items on the attached list will be the date of issuance of the final Certificate of Payment or the date of final payment.

Cost estimate of Work that incomplete or defective: \$ \_\_\_\_\_

The Contractor will complete or correct the Work on the list of items attached hereto within  
(     ) days from the above date of Substantial Completion.

\_\_\_\_\_  
CONTRACTOR\_\_\_\_\_  
BY\_\_\_\_\_  
DATE

The Owner accepts the Work or designated portion as substantially complete and will assume full possession at  
(time) on (date).

\_\_\_\_\_  
OWNER\_\_\_\_\_  
BY\_\_\_\_\_  
DATE

The responsibilities of the Owner and Contractor for security, maintenance, heat, utilities, damage to the Work and insurance shall be as follows: *(Note: Owner's and Contractor's legal and insurance counsel should determine and review insurance requirements and coverage.)*

**Contractor's Affidavit of Release of Liens**PROJECT: *(Name and address)*

ARCHITECT'S PROJECT NUMBER:

OWNER ☐

CONTRACT FOR:

ARCHITECT ☐CONTRACTOR ☐TO OWNER: *(Name and address)*

CONTRACT DATED:

SURETY ☐OTHER ☐

STATE OF:

COUNTY OF:

The undersigned hereby certifies that to the best of the undersigned's knowledge, information and belief, except as listed below, the Releases or Waivers of Lien attached hereto include the Contractor, all Subcontractors, all suppliers of materials and equipment, and all performers of Work, labor or services who have or may have liens or encumbrances or the right to assert liens or encumbrances against any property of the Owner arising in any manner out of the performance of the Contract referenced above.

**EXCEPTIONS:**

SUPPORTING DOCUMENTS ATTACHED HERETO:

1. Contractor's Release or Waiver of Liens, conditional upon receipt of final payment.
2. Separate Releases or Waivers of Liens from Subcontractors and Material and equipment suppliers, to the extent required by the Owner, accompanied by a list thereof,

CONTRACTOR: *(Name and address)*

BY:

---

*(Signature of authorized representative)*

---

*(Printed name and title)*

Subscribed and sworn to before me on this date:

Notary Public:

My Commission Expires:

PROJECT CLOSEOUT DOCUMENTS

CD-3

## Consent of Surety to Final Payment

PROJECT: *(Name and address)*

ARCHITECT'S PROJECT NUMBER:

OWNER ☐

CONTRACT FOR:

ARCHITECT ☐

CONTRACTOR ☐

TO OWNER: *(Name and address)*

CONTRACT DATED:

SURETY ☐

OTHER ☐

In accordance with the provisions of the Contract between the Owner and the Contractor as indicated above, the  
*(Insert name and address of Surety)*

on bond of  
*(Insert name and address of Contractor)*

, SURETY

, CONTRACTOR

hereby approves of the final payment to the Contractor, and agrees that final payment to the Contractor shall not relieve the  
 Surety of any of its obligations to  
*(Insert name and address of Owner)*

, OWNER

as set forth in Surety's bond.

IN WITNESS WHEREOF, the Surety has hereunto set its hand on this date:  
*(Insert in writing the month followed by the numeric date and year.)*

\_\_\_\_\_  
*(Surety)*

\_\_\_\_\_  
*(Signature of authorized representative)*

\_\_\_\_\_  
*(Printed name and title)*

Attest:  
*(Seal)*