

UNCAS LEAP HERITAGE AREA MASTER PLANNING

Granite Mill Stabilization Project Manual

OCTOBER 2015

Project generously funded by:





PROJECT MANUAL TABLE OF CONTENTS

TITLE PAGE

TABLE OF CONTENTS

LIST OF DRAWINGS

BIDDING REQUIREMENTS

Invitation to Bid Instructions to Bidders Bid Form Commission on Human Rights and Opportunities Contract Compliance Notification to Bidders Bid Bond (EJCDC No. 1910-28-D) Statement of Bidder Qualifications List of Subcontractors

CONDITIONS OF THE CONTRACT

Agreement (EJCDC C-520) Performance Bond (EJCDC C-610) City of Norwich General Conditions Supplementary Conditions

CONTRACT FORMS

Notice of Award (EJCDC C-510) Notice to Proceed (EJCDC C-550) Application for Payment (EJCDC No. 1910-8-E) Work Change Directive (EJCDC C-940) Change Order (EJCDC C-941) Certificate of Substantial Completion (EJCDC C-625)

PROJECT MANUAL TABLE OF CONTENTS (Continued)

DIVISION 1 – GENERAL REQUIREMENTS

Section 011000	Summary of Work
Section 012000	Project Meetings
Section 012200	Unit Prices
Section 013100	Project Management and Coordination
Section 013300	Submittals
Section 013410	Guarantees/Warrantees
Section 013591	Historic Treatment Procedures
Section 015000	Temporary Facilities
Section 017700	Project Closeout

DIVISION 2 – EXISTING CONDITIONS

Section 024119 Selective Demolition

DIVISION 3 – CONCRETE Section 033000 Cast-in-Place Concrete

DIVISION 5 – METALS Section 052100

Structural Steel Framing

DIVISION 6 – WOOD, PLASTICS, COMPOSITES Section 061000 General Carpentry

DIVISION 7 – THERMAL AND MOISTURE PROTECTION Section 073110 Roofing

DIVISION 31 – EARTHWORK Section 312111 Compacted Structural Fill

DRAWINGS – (11"x17" set bound into the Project Manual) (See List of Drawings)

LIST OF DRAWINGS

Sheet No.	<u>Title</u>
S.1	Ground Floor and Foundation Plans
S.2	First Floor Framing Plans
S.3	Second Floor Framing Plans
S.4	Roof Framing Plans
S.5	Sections and Details
S.6	Sections and Details
S.7	Sections and Details
S.8	Existing Conditions Photographs
S.9	General Notes and Typical Details

BIDDING REQUIREMENTS

Invitation to Bid

Owner:Norwich Community Development Corporation (NCDC)Location:196 Yantic Street
Norwich, Connecticut 06360Project:Uncas Leap Granite Mill Stabilization

The Norwich Community Development Corporation (OWNER) will receive sealed bids on a general contract for the Uncas Leap Granite Mill Stabilization Project. The CONTRACTOR shall furnish all labor, equipment and materials for the Uncas Leap Granite Mill Stabilization Project at 196 Yantic Street, Norwich CT 06260. The scope of work for this project consists of removing collapsed structure and debris from the site, selective demolition of compromised structure, reconstructing and repairing collapsed areas of the Granite Mill, and stabilizing the structure to a weather-tight and safe condition. The majority of reconstruction and repairs to be made include timber truss replication and reinforcement, timber framing and decking reconstruction, wood column reinforcement, masonry reconstruction, new roofing installation, and installation of temporary window and door enclosures. The project requirements are described in the Project Manual for the Uncas Leap Granite Mill Stabilization Project; these documents were prepared by GNCB Consulting Engineers, P.C. (ENGINEER).

This project will be funded by the City of Norwich. All project work must conform to the National Park Service Secretary of the Interior's Standards for the Treatment of Historic Properties, as prescribed by the ENGINEER, and be approved by the Department of Economic and Community Development, State Historic Preservation Office.

The CONTRACTOR who is selected to perform this city project, as an affirmative action equal opportunity employer, must file and receive an approved affirmative action plan by the Commission on Human Rights and Opportunities (CHRO) prior to the commencement of construction. Women owned and Minority owned businesses are encouraged to bid.

The bid documents (refer to Bid Form) request the following bid from prospective CONTRACTORS:

- 1. Base Bid Lump Sum Base Bid Price;
- 2. Unit Prices.

All bids must be accompanied by the following documents:

- 1. Bid Form;
- 2. Notification of Bidders Form (CCCT);
- Commission on Human Rights and Opportunities (CHRO) Form: State of Connecticut Employer Report of Compliance Staffing Labor Department;
- 4. Bid Bond/Security;
- 5. Statement of Bidder's Qualifications;
- 6. List of Subcontractors;

The Base Bid must be submitted on a lump sum basis. Segregated bids will not be accepted. BIDDERS will be required to provide references and evidence of experience in previous, similar work, and must carry appropriate insurance coverage. The OWNER shall award the contract, if awarded, to the lowest responsible and qualified CONTRACTOR, the BIDDER whose bid is the lowest of those BIDDERS possessing the skill, ability and integrity necessary to perform the project scope of work. The OWNER reserves the right to reject any, or all bids, and to waive informality and irregularity in the Bids. The OWNER may, in its sole discretion, release any Bid, and return the Bid Security.

All bids must be received in a sealed envelope designated as "UNCAS LEAP GRANITE MILL STABILIZATION PROJECT: BID ENCLOSED." Bids will be received until (insert time, EST), on (Insert date) at GNCB Consulting Engineers, P.C. at 130 Elm Street, Old Saybrook, CT 06475, at which time bids will be opened publicly, and conforming bids will be read aloud. Bids received after this time will not be accepted. All interested parties are invited to attend the bid opening on said date at GNCB.

Electronic copies of bid documents, including the Project Manual and construction drawings, may be obtained at the City of Norwich's website at <u>http://www.norwichct.org</u> or at the NCDC's website at <u>http://www.askncdc.com</u>.

A mandatory pre-bid meeting is scheduled at the project site for 10:00 a.m. on (Insert date) at 196 Yantic Street, Norwich, CT. Any prospective BIDDER must acknowledge presence at the pre-bid meeting by signing the attendance list that is circulated at the meeting. Late arrivals (more than fifteen (15) minutes after the scheduled start time) will not be given credit for attendance at the pre-bid meeting. Prospective BIDDERS may also schedule additional site visits by contacting (Insert name).

Bid security in the amount of five (5%) percent of the base bid (Bid Bond or Certified Check made out to Norwich Community Development Corporation) must accompany each bid. No BIDDER may withdraw their bid within 60 days after the actual bid opening date. The Bid Bond will be retained in case the selected BIDDER fails to execute a contract with the OWNER. The General Conditions for this project will require a Performance Bond. City of Norwich permits are required, including a building permit.

Norwich Community Development Corporation Norwich, Connecticut Uncas Leap Granite Mill Stabilization Project

INVITATION TO BID Page 2 For further information contact Amy Jagaczewski, Engineer (Ext 130) at GNCB at (860) 388-1224, fax (860) 388-4613. Do not contact the NCDC for administrative or technical questions. Answers to questions will be distributed to all prospective BIDDERS who attended the mandatory pre-bid conference on (Insert date), in the form of written Addenda. Questions will be accepted until (insert date and time). No further questions will be accepted after this time.

Norwich Community Development Corporation Norwich, Connecticut Uncas Leap Granite Mill Stabilization Project

INVITATION TO BID Page 3

City of Norwich Advertisement for Invitation to Bid

Owner:Norwich Community Development Corporation (NCDC)Location:196 Yantic StreetNorwich, Connecticut 06360Project:Uncas Leap Granite Mill Stabilization

The Norwich Community Development Corporation will receive sealed bids on a general contract for the Uncas Leap Granite Mill Stabilization until (insert time and date) and will be publicly opened and read aloud.

A mandatory pre-bid meeting is scheduled at the project site for 10:00 a.m. on (Insert date) at 196 Yantic Street, Norwich, CT. Late arrivals (more than fifteen minutes after the scheduled start time) will not be given credit for attendance at the pre-bid meeting.

Plans, Specifications and information for bidders may be downloaded from the following websites:

City of Norwich Norwich Community Development Corporation http://www.norwichct.org http://askncdc.com

This project will be funded by the City of Norwich. All project work must conform to the National Park Service Secretary of the Interior's Standards for the Treatment of Historic Properties. The Bidder must be an Affirmative Action/Equal Opportunity Employer. Minority/Women's Business Enterprises are encouraged to apply. The OWNER reserves the right to reject any, or all bids, and to waive informality and irregularity in the Bids. The OWNER may, in its sole discretion, release any Bid, and return the Bid Security.

All bids must be received in a sealed envelope with Bidder's name and designated as "UNCAS LEAP GRANITE MILL STABILIZATION PROJECT: BID ENCLOSED." Bid security in the amount of five (5%) percent of the base bid (Bid Bond or Certified Check) made out to Norwich Community Development Corporation must accompany each bid.

Norwich Community Development Corporation Norwich, Connecticut Uncas Leap Granite Mill Stabilization Project ADVERTISEMENT FOR INVITATION TO BID Page 1

INSTRUCTIONS TO BIDDERS

1.0 DEFINED TERMS

Terms used in these Instructions to Bidders which are defined in the Standard General Conditions of the Construction Contract have the meanings assigned to them in the General Conditions.

Certain additional terms used in these Instructions to Bidders have the meanings indicated below which are applicable to both the singular and plural thereof.

- 1.1 <u>BIDDER</u> one who submits a bid directly to OWNER as distinct from a sub-bidder who submits a bid to a BIDDER.
- 1.2 <u>Issuing Office</u> the office from which the Bidding Documents are to be issued and where the bidding procedures are to be administered.
- 1.3 <u>Successful BIDDER</u> the lowest, responsible and qualified BIDDER to whom OWNER (on the basis of OWNER'S evaluation as hereinafter provided) makes as award.
- 1.4 <u>Bidding Documents</u> includes the Invitation to Bid, Instructions to Bidders, the Bid Form, and the proposed Contract Documents as contained in the Project Manual dated (Insert Date), and including all Addenda issued prior to receipt of Bids.

2.0 COPIES OF BIDDING DOCUMENTS

- 2.1 Electronic copies of the Bidding Documents can be found online at the City of Norwich's website at <u>http://www.norwichct.org</u> or at the NCDC's website at <u>http://www.askncdc.com</u>.
- 2.2 Complete sets of Bidding Documents must be used in preparing Bids; neither OWNER nor ENGINEER assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.
- 2.3 OWNER and ENGINEER in making copies of Bidding Documents available on the above terms do so only for the purpose of obtaining Bids for the Work and do not confer a license or grant for any other use.

3.0 QUALIFICATIONS OF BIDDERS

3.1 To demonstrate qualifications to perform the Work, each BIDDER must submit with their bid written evidence, including financial data, previous experience of a similar nature, present commitments, and other data as required in the Statement of Bidder's Qualifications. Each Bid must contain evidence of BIDDER's qualifications to do business in the State of Connecticut or covenant to obtain such qualification prior to award of the Contract.

4.0 EXAMINATION OF CONTRACT DOCUMENTS AND SITE

- 4.1 It is the responsibility of each BIDDER before submitting a Bid:
 - 4.1.1 To examine thoroughly the Contract Documents and other related data identified in the Bidding Documents;
 - 4.1.2 To visit the site to become familiar with and satisfy BIDDER as to the general, local and site conditions that may affect cost, progress, performance or furnishing of the Work;
 - 4.1.3 To consider federal, state, and local Laws and Regulations that may affect cost, progress, performance or furnishing of the Work;
 - 4.1.4 To study and carefully correlate BIDDER's knowledge and observations with the Contract Documents and such other related data;
 - 4.1.5 To promptly notify ENGINEER of all conflicts, errors, ambiguities or discrepancies which BIDDER has discovered in or between the Contract Documents and such other related documents; and
- 4.2 A mandatory site visit (pre-bid conference) is scheduled for (insert time and date). Prospective BIDDERS may also schedule site visits as stated in the Invitation to Bid.
- 4.3 The submission of a Bid will constitute an incontrovertible representation by BIDDER that BIDDER has complied with every requirement of this Article 4, that without exception, the Bid is premised upon performing and furnishing the Work required by Contract Documents, that BIDDER has given ENGINEER written notice of all conflicts, errors, ambiguities and discrepancies that BIDDER has discovered in the Contract Documents, and the written resolutions thereof by ENGINEER is acceptable to BIDDER, and that the Contract Documents are generally sufficient to

Norwich Community Development Corporation Norwich, CT Uncas Leap Granite Mill Stabilization Project

INSTRUCTIONS TO BIDDERS Page 2 indicate and convey understanding of all terms and conditions for performing and furnishing the Work.

5.0 INTERPRETATIONS AND ADDENDA

- 5.1 All questions about the meaning or intent of the Bidding Documents are to be directed to the ENGINEER on or before (Insert date) by (Insert time). Interpretations or clarifications considered necessary by ENGINEER in response to such questions will be issued by Addenda, no later than (Insert date), electronically mailed to all parties recorded by ENGINEER as having received the Bidding Documents. Questions received after (Insert date) will not be answered. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.
- 5.2 Addenda may also be issued to modify the Bidding Documents as deemed advisable by OWNER or ENGINEER.

6.0 BID SECURITY

- 6.1 Each bid must be accompanied by Bid Security made payable to OWNER. in an amount of five percent (5%) of the BIDDER's maximum Lump Sum Bid price and in the form of a certified or bank check, or a Bid Bond on form attached issued by a surety meeting the requirements of Article 3 of the General Conditions.
- 6.2 The Bid Security of the Successful Bidder will be retained until such BIDDER has executed the Agreement and furnished the required Contract security, whereupon the Bid security will be returned. If the Successful BIDDER fails to execute and deliver the Agreement and furnish the required Contract security within ten (10) days after the Notice of Award, OWNER may annul the Notice of Award and the Bid security of that BIDDER will be forfeited. The Bid security of other BIDDERS whom OWNER believes to have a reasonable chance of receiving the award may be retained by OWNER until the earlier of the seventh day after the Effective Date of the Agreement or the sixty first day after the Bid opening, whereupon Bid security furnished by such BIDDERS will be returned. Bid Security with Bids which are not competitive will be returned within seven (7) days after the Bid opening.

7.0 CONTRACT TIMES

- 7.1 The BIDDER may begin construction immediately upon execution of Agreement with OWNER but is not a requirement.
- 7.2 The anticipate start of construction is (insert date).
- 7.3 The work as described herein must be substantially complete by (Insert date).

8.0 LIQUIDATED DAMAGES

8.1 There are no provisions for liquidated damages.

9.0 SUBSTITUTE AND "OR-EQUAL" ITEMS

9.1 The Contract, if awarded, will be on the basis of materials and equipment described in the Drawings or specified in the Specifications without consideration of possible substitute or "or-equal" items. Whenever it is indicated in the Drawings or specified in the Specifications that a substitute or "or-equal" item of material or equipment may be furnished or used by CONTRACTOR if acceptable to ENGINEER, application for such acceptance will not be considered by ENGINEER until after the Effective Date of the Agreement. The procedure for submission of any such application by CONTRACTOR and consideration by ENGINEER is set forth in Article 22 of the General Conditions.

10.0 SUBCONTRACTORS, SUPPLIERS AND OTHERS

- 10.1 All bids must be accompanied by a List of Subcontractors form (see attached).
- 10.2 If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers and other persons and organizations (including those who are to furnish the principal items of material and equipment) to be submitted to OWNER in advance of a specified date prior to the Effective Date of the Agreement, apparent successful BIDDER, and any other BIDDER so requested, shall within five days after Bid opening submit to OWNER a list of all such Subcontractors, Suppliers and other persons and organizations proposed for those portions of the Work for which such identification is required. Such list shall be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor, Supplier, person or organization if requested by OWNER. An OWNER or ENGINEER who after due investigation has reasonable objection to any

Norwich Community Development Corporation Norwich, CT Uncas Leap Granite Mill Stabilization Project

INSTRUCTIONS TO BIDDERS Page 4 proposed Subcontractor, Supplier, other person or organization, may before the Notice of Award is given request apparent Successful BIDDER to submit an acceptable substitute, in which case apparent Successful BIDDER shall submit an acceptable substitute, without an increase in Bid price.

11.0 BID FORM

- 11.1 The Bid Form is included with the Bidding Documents; additional copies may be obtained from the ENGINEER.
- 11.2 All blanks on the Bid Form are to be typed, not handwritten.
- 11.3 Bids by corporations are to be executed in the corporate name by the president or a vice-president and the corporate seal must be affixed and attested by the secretary. The corporate address and the state of incorporation must be shown below the signature.
- 11.4 Bids by partnerships are to be executed in the partnership name and signed by a partner, whose title appears under the signature, and the official address of the partnership must be shown below the signature.
- 11.5 All names must be typed or printed below the signature.
- 11.6 The Bid Form shall contain an acknowledgement of receipt of all Addenda (the numbers and date of which must be filled in on the Bid Form.).
- 11.7 The address and telephone number for communications regarding the Bid Form must be shown.
- 11.8 Evidence of authority to conduct business as an out-of-state corporation in the state where the Work is to be performed shall be provided in accordance with Paragraph 11.3 above. State contractor license number, if any, must also be shown.
- 11.9 Submit one original and one copy of completed Bid Form, and all required documents, as stated below:
- 11.10 The Bid Form must include the following documents:
 - Notification of Bidders Form
 - Commission on Human Rights and Opportunities Form State of Connecticut Employer Report of Compliance Staffing Labor Department

- Bid Bond/Security
- Statement of Bidder Qualifications
- List of Subcontractors

12.0 SUBMISSION OF BIDS

12.1 Bids shall be submitted at the time and place indicated in the Invitation to Bid and shall be enclosed in an opaque sealed envelope, marked with the Project title and be accompanied by the BID security and other required documents. If the Bid is sent through the mail or other delivery system, the sealed envelope shall be enclosed in a separate envelope with the notation "UNCAS LEAP GRANITE MILL STABILIZATION PROJECT: BID ENCLOSED", "Attention (Insert name), on the face of it.

13.0 MODIFICATION AND WITHDRAWAL OF BIDS

- 13.1 Bids may be modified or withdrawn by an appropriate document duly executed (in the manner that a Bid must be executed) and delivered to the place where Bids are to be submitted at any time prior to the opening of Bids.
- 13.2 If, within twenty-four hours after Bids are opened, any BIDDER files a duly signed, written notice with OWNER and promptly thereafter demonstrates to the reasonable satisfaction of OWNER that there was a material and substantial mistake in the preparation of its Bid, that BIDDER may withdraw its Bid and the Bid security will be returned. Thereafter, that BIDDER will be disqualified from further bidding on the Work to be provided under the Contract Documents.

14.0 OPENING OF BIDS

14.1 Bids will be publicly opened at a place where Bids are to be submitted. An abstract of the amounts of the lump sum Base Bid, major alternates, (if any) and unit prices (if any) will be made available to BIDDERS after the opening of Bids.

15.0 BIDS TO REMAIN SUBJECT TO ACCEPTANCE

15.1 All competitive bids will remain subject to acceptance for sixty (60) days after the day of the Bid opening, but OWNER may, in its sole discretion, release any Bid and return the Bid Security prior to that date.

16.0 AWARD OF CONTRACT

- 16.1 The OWNER reserves the right to reject any or all Bids, and to waive informalities and irregularities in the Bids. The OWNER reserves the right to reject the Bid of any BIDDER, if the OWNER believes that it would not be in the best interest of the Project to make an award to that BIDDER, whether because the Bid is not responsible, or the BIDDER is unqualified or of doubtful financial ability, or fails to meet any other pertinent standard or criteria established by OWNER. Discrepancies in the multiplication of units of Work and unit prices will be resolved in favor of the unit price. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.
- 16.2 In evaluating Bids, OWNER will consider, whether or not the Bids comply with the prescribed requirements, and such alternates, unit prices and other data, as may be requested in the Bid Form or prior to the Notice of Award.
- 16.3 OWNER may consider qualifications and experience of Subcontractors, suppliers, and other persons and organizations proposed for those portions of the Work as to which the identity of Subcontractors, Suppliers, and other persons and organizations must be submitted as provided in the Supplementary Conditions. OWNER also may consider the operating costs, maintenance requirements, performance data, and guarantees of major items of materials and equipment proposed for incorporation in the Work when such data is required to be submitted prior to the Notice of Award.
- 16.4 The Contract, if awarded, is to be awarded to the lowest responsible and qualified BIDDER whose BID, by evaluation by OWNER, is the lowest of those BIDDERS possessing the skill, ability and integrity necessary to perform the project scope of work, in the sole judgment of the OWNER.
- 16.5 The BIDDER selected by OWNER evaluation requires final approval by the City of Norwich and Commission on Human Rights and Opportunities (CHRO). The apparent selected BIDDER shall submit an affirmative action plan to CHRO per that agency's requirements. The final approvals are required prior to OWNER and CONTRACTOR executing the

Norwich Community Development Corporation Norwich, CT Uncas Leap Granite Mill Stabilization Project

INSTRUCTIONS TO BIDDERS Page 7 Agreement and start of work.

17.0 CONTRACT SECURITY

17.1 Article 5 of the General Conditions set forth OWNER'S requirements as to 100 percent Performance Bond. When the Successful BIDDER delivers the executed Agreement to the OWNER, it must be accompanied by the required Performance Bond from a B+ or better rating by Best, and licensed to do business in the State of Connecticut.

18.0 SIGNING OF AGREEMENT

18.1 When OWNER gives a Notice of Award to the successful BIDDER, it will be accompanied by the required number of unsigned counterparts of the Agreement with all other written Contract Documents attached. Within ten (10) days thereafter, CONTRACTOR shall sign and deliver the required number of counterparts of the Agreement and attached documents to OWNER with the required Bonds. Within ten (10) days thereafter, OWNER shall deliver one fully signed counterpart to CONTRACTOR. Each counterpart is to be accompanied by a complete set of the Drawings with appropriate identification.

19.0 FEDERAL AND STATE LAWS AND REGULATIONS

19.1 The BIDDER's attention is directed to the fact that all applicable Federal, State, and Municipal Laws, Ordinances, Rules, Regulations and Codes of all authorities having jurisdiction over construction work in the locality of the Project shall apply to the Contract throughout, and they are deemed to be included herein the same as though herein written.

20.0 SALES AND USE TAXES

20.1 OWNER is exempt from Connecticut State Sales and Use Taxes on materials and equipment to be incorporated in the Work. Said taxes shall not be included in the Contract Price. Awarding contractor to be provided with the exemption number.

21.0 RETAINAGE

21.1 Provisions concerning retainage and CONTRACTOR'S rights to deposit securities in lieu of retainage are set forth in the AGREEMENT. A five percent retainage will be held by the OWNER for all partial payments.

22.0 PERMITS

22.1 It is the CONTRACTOR'S responsibility to obtain City of Norwich permits, including a building permit. The cost of obtaining these permits must be included in the BIDDER's base bid.

BID FORM

PROJECT: Norwich Community Development Corporation Norwich, CT 06360 Uncas Leap Mill Stabilization Project

BIDDER: (name and address)

- 1. The undersigned BIDDER proposes and agrees, if this bid is accepted, to enter into an agreement with OWNER in the form included in the Construction Documents to perform and furnish all Work as specified or indicated in the Construction Documents for the Bid Price, and within the Bid Times indicated in this Bid, and in accordance with the other terms and conditions of the Contract Documents.
- 2. BIDDER accepts all of the terms and conditions of the Invitation to Bid, and Instructions to Bidders. This Bid will remain subject to acceptance for sixty (60) days after the day of Bid opening. BIDDER will sign and deliver the required number of counterparts of the Agreement with the Bonds and other documents required by the Bidding Requirements within ten days after the date of OWNER's Notice of Award.
- 3. In submitting this Bid, BIDDER represents, as more fully set forth in the Agreement, that:
 - a. BIDDER has examined and carefully studied the Bidding Documents and the following Addenda receipt of all which is hereby acknowledged:

Addenda #	Date:
Addenda #	Date:

b. BIDDER has visited the site and become familiar with and is satisfied as to the general, local, and site conditions that may affect cost, progress, performance and furnishing of the Work.

- c. BIDDER is familiar with and is satisfied as to all federal, state, and local Laws and Regulations that may affect cost, progress, performance and furnishing of the Work.
- d. BIDDER has carefully studied all reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.
- e. BIDDER has considered the information known to BIDDER itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and any Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedure of construction to be employed by BIDDER; and (3) BIDDER's safety precautions and programs.
- f. BIDDER agrees, based on the information and observations referred to in the preceding paragraph, that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.
- g. BIDDER is aware of the general nature of Work to be performed by OWNER that relates to Work for which this Bid is submitted as indicated in the Contract Documents.
- h. BIDDER has given ENGINEER written notice of all conflicts, errors, ambiguities, or discrepancies that BIDDER has discovered in the Bidding Documents, and confirms that the written resolution thereof by the ENGINEER is acceptable to BIDDER.
- i. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work.
- j. The submission of this Bid constitutes an incontrovertible representation by BIDDER that BIDDER has complied with every requirement of this Article, and that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

- k. The prospective BIDDER has read, signed and returned with this Bid Form, the "Notification to Bidders Form", and all other forms noted in the Instructions to Bidders.
- I. Refer to General Conditions for Insurance Requirements.
- m. State of Connecticut prevailing wage rates are not applicable to this project.
- 4. BIDDER certifies that:
 - a. This Bid is genuine and not made in the interest of or on the behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation;
 - b. BIDDER has not directly or indirectly induced or solicited any other BIDDER to submit a false or sham Bid;
 - c. BIDDER has not solicited any individual or entity to refrain from bidding; and
 - d. BIDDER has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. These practices are defined as follows:
 - i. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action or a public official in the bidding process;
 - ii. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of OWNER, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive OWNER of the benefits of free and open competition;
 - iii. "collusive practice" means a scheme or arrangement between two or more BIDDERS, with or without the knowledge of OWNER, a purpose of which is to establish bid prices at artificial, non-competitive levels; and
 - iv. "coercive practice" means harming or threatening to harm, directly or indirectly, persons of their property to influence their participation in the bidding process or affect the execution of the Contract.

5. BIDDER will complete the Work in accordance with the Contract Documents for the following price (subject to authorized increases or decreases for adjustments in Unit Price Items noted below in Paragraph 6 or for changes in the Work):

Lump Sum Bid Price for Base Bid:	Dollars
	(\$)

The above lump sum bid price for Base Bid shall include the items and estimated quantities noted in Paragraph 6 below.

6. UNIT PRICES:

The BIDDER will include ADD and DEDUCT Unit Prices for Work specified for the following in the event that the actual quantity installed is more or less than the estimated quantities: (Refer to Unit Price Section 012200)

Item	Description	Unit	Estimated	BID UNI	
No.			Base Quantity	ADD	DEDUCT
1	Structural Deck	Cubic	100	\$	\$
	Epoxy Patch	Feet			
2	4x Structural Deck	Square	2500	\$	\$
	Replacement ^a	Feet			
3	3x Structural Deck	Square	3100	\$	\$
	Replacement ^b	Feet			
4	1x Structural Roof	Square	4500	\$	\$
	Deck Replacement ^c	Feet			
5	Timber Girder	Cubic	50	\$	\$
	Consolidation	Feet			
6	Timber Girder	Unit	12	\$	\$
	Replacement				
7	Brick Masonry	Square	745	\$	\$
	Resetting	Feet			

- a. For bidding purposes, deck is 3 ³/₄" thick spline deck. Deck thickness to match thickness of existing deck and to be tongue-and-groove.
- b. For bidding purposes, deck is 2 ³/₄" thick spline deck. Deck thickness to match thickness of existing deck and to be tongue-and-groove.
- c. For bidding purposes, deck is 1" thick tongue-and-groove bead board. Deck thickness to match thickness of existing deck and be tongue-and-groove.
- d. Bid Price includes time and materials.

The DEDUCT Unit Price shall not differ by greater than 15 percent more or less from the ADD price.

- BIDDER agrees that the work will be substantially completed on or before (Insert date), and will be completed and ready for final payment in accordance with the Contract Documents on or before (Insert date).
- 8. Bid Security in the form of ______ and in the sum of ______ Dollars is attached and made a condition of this Bid.
- 9. BIDDER represents that if selected as the apparent selected CONTRACTOR for the project scope of work, the firm is capable of, and shall submit the Commission on Human Rights and Opportunities affirmative action plan, documents and forms required by that agency, prior to State of Connecticut final approval.

By:		Title:
	Signature:	
	General Contractor's License Number: Phone Number:	
	Fax Number: F-Mail:	
	State of Incorporation:	
	Corporate Seal:	
	Attested by:	

COMMISSION ON HUMAN RIGHTS AND OPPORTUNITIES CONTRACT COMPLIANCE REGULATIONS NOTIFICATION TO BIDDERS

(Revised 09/17/07)

The contract to be awarded is subject to contract compliance requirements mandated by Sections 4a-60 and 4a-60a of the Connecticut General Statutes; and, when the awarding agency is the State, Sections 46a-71(d) and 46a-81i(d) of the Connecticut General Statutes. There are Contract Compliance Regulations codified at Section 46a-68j-21 through 43 of the Regulations of Connecticut State Agencies, which establish a procedure for awarding all contracts covered by Sections 4a-60 and 46a-71(d) of the Connecticut General Statutes.

According to Section 46a-68j-30(9) of the Contract Compliance Regulations, every agency awarding a contract subject to the contract compliance requirements has an obligation to "aggressively solicit the participation of legitimate minority business enterprises as bidders, contractors, subcontractors and suppliers of materials." "Minority business enterprise" is defined in Section 4a-60 of the Connecticut General Statutes as a business wherein fifty-one percent or more of the capital stock, or assets belong to a person or persons: "(1) Who are active in daily affairs of the enterprise; (2) who have the power to direct the management and policies of the enterprise; and (3) who are members of a minority, as such term is defined in subsection (a) of Section 32-9n." "Minority" groups are defined in Section 32-9n of the Connecticut General Statutes as "(1) Black Americans ... (2) Hispanic Americans ... (3) persons who have origins in the Iberian Peninsula ... (4)Women ... (5) Asian Pacific Americans and Pacific Islanders; (6) American Indians ..." An individual with a disability is also a minority business enterprise as provided by Section 4a-60g of the Connecticut General Statutes. The above definitions apply to the contract compliance requirements by virtue of Section 46a-68j-21(11) of the Contract Compliance Regulations.

The awarding agency will consider the following factors when reviewing the bidder's qualifications under the contract compliance requirements:

- (a) the bidder's success in implementing an affirmative action plan;
- (b) the bidder's success in developing an apprenticeship program complying with Sections 46a-68-1 to 46a-68-17 of the Administrative Regulations of Connecticut State Agencies, inclusive;
- (c) the bidder's promise to develop and implement a successful affirmative action plan;
- (d) the bidder's submission of employment statistics contained in the "Employment Information Form", indicating that the composition of its workforce is at or near parity when compared to the racial and sexual composition of the workforce in the relevant labor market area; and
- (e) the bidder's promise to set aside a portion of the contract for legitimate minority business enterprises. See Section 46a-68j-30(10)(E) of the Contract Compliance Regulations.

INSTRUCTIONS AND OTHER INFORMATION

The following <u>BIDDER CONTRACT COMPLIANCE MONITORING REPORT</u> must be completed in full, signed, and submitted with the bid for this contract. The contract awarding agency and the Commission on Human Rights and Opportunities will use the information contained thereon to determine the bidders compliance to Sections 4a-60 and 4a-60a CONN. GEN. STAT., and Sections 46a-68j-23 of the Regulations of Connecticut State Agencies regarding equal employment opportunity, and the bidder's good faith efforts to include minority business enterprises as subcontractors and suppliers for the work of the contract.

1) Definition of Small Contractor

Section 4a-60g CONN. GEN. STAT. defines a small contractor as a company that has been doing business under the same management and control and has maintained its principal place of business in Connecticut for a one year period immediately prior to its application for certification under this section, had gross revenues not exceeding ten million dollars in the most recently completed fiscal year, and at least fifty-one percent of the ownership of which is held by a person or persons who are active in the daily affairs of the company, and have the power to direct the management and policies of the company, except that a nonprofit corporation shall be construed to be a small contractor if such nonprofit corporation meets the requirements of subparagraphs (A) and (B) of subdivision 4a-60g CONN. GEN. STAT.

MANAGEMENT: Managers plan, organize, direct, and control the major functions of an organization through subordinates who are at the managerial or supervisory level. They make policy decisions and set objectives for the company or departments. They are not usually directly involved in production or providing services. Examples include top executives, public relations managers, managers of operations specialties (such as financial, human resources, or purchasing managers), and construction and engineering managers.

BUSINESS AND FINANCIAL OPERATIONS: These occupations include managers and professionals who work with the financial aspects of the business. These occupations include accountants and auditors, purchasing agents, management analysts, labor relations specialists, and budget, credit, and financial analysts.

MARKETING AND SALES: Occupations related to the act or process of buying and selling products and/or services such as sales engineer, retail sales workers and sales representatives including wholesale.

LEGAL OCCUPATIONS: In-House Counsel who is charged with providing legal advice and services in regards to legal issues that may arise during the course of standard business practices. This category also includes assistive legal occupations such as paralegals, legal assistants.

COMPUTER SPECIALISTS: Professionals responsible for the computer operations within a company are grouped in this category. Examples of job titles in this category include computer programmers, software engineers, database administrators, computer scientists, systems analysts, and computer support specialists

ARCHITECTURE AND ENGINEERING: Occupations related to architecture, surveying, engineering, and drafting are included in this category. Some of the job titles in this category include electrical and electronic engineers, surveyors, architects, drafters, mechanical engineers, materials engineers, mapping technicians, and civil engineers.

OFFICE AND ADMINISTRATIVE SUPPORT: All clerical-type work is included in this category. These jobs involve the preparing, transcribing, and preserving of written communications and records; collecting accounts; gathering and distributing information; operating office machines and electronic data processing equipment; and distributing mail. Job titles listed in this category include telephone operators, bill and account collectors, customer service representatives, dispatchers, secretaries and administrative assistants, computer operators and clerks (such as payroll, shipping, stock, mail and file).

BUILDING AND GROUNDS CLEANING AND MAINTENANCE: This category includes occupations involving landscaping, housekeeping, and janitorial services. Job titles found in this category include supervisors of landscaping or housekeeping, janitors, maids, grounds maintenance workers, and pest control workers.

CONSTRUCTION AND EXTRACTION: This category includes construction trades and related occupations. Job titles found in this category include boilermakers, masons (all types), carpenters, construction laborers, electricians, plumbers (and related trades), roofers, sheet metal workers, elevator installers, hazardous materials removal workers, paperhangers, and painters. Paving, surfacing, and tamping equipment operators; drywall and ceiling tile installers; and carpet, floor and tile installers and finishers are also included in this category. First line supervisors, foremen, and helpers in these trades are also grouped in this category.

INSTALLATION, MAINTENANCE AND REPAIR: Occupations involving the installation, maintenance, and repair of equipment are included in this group. Examples of job titles found here are heating, ac, and refrigeration mechanics and installers; telecommunication line installers and repairers; heavy vehicle and mobile equipment service technicians and mechanics; small engine mechanics; security and fire alarm systems installers; electric/electronic repair, industrial, utility and transportation equipment; millwrights; riggers; and manufactured building and mobile home installers. First line supervisors, foremen, and helpers for these jobs are also included in the category.

MATERIAL MOVING WORKERS: The job titles included in this group are Crane and tower operators; dredge, excavating, and lading machine operators; hoist and winch operators; industrial truck and tractor operators; cleaners of vehicles and equipment; laborers and freight, stock, and material movers, hand; machine feeders and offbearers; packers and packagers, hand; pumping station operators; refuse and recyclable material collectors; and miscellaneous material moving workers.

PRODUCTION WORKERS: The job titles included in this category are chemical production machine setters, operators and tenders; crushing/grinding workers; cutting workers; inspectors, testers sorters, samplers, weighers; precious stone/metal workers; painting workers; cementing/gluing machine operators and tenders; etchers/engravers; molders, shapers and casters except for metal and plastic; and production workers.

3) Definition of Racial and Ethnic Terms (as used in Part IV Bidder Employment Information) (Page 3)

<u>White</u> (not of Hispanic Origin)- All persons having origins in any of the original peoples of Europe, North Africa, or the Middle East. <u>Black</u> (not of Hispanic Origin)- All persons having origins in any of the Black racial groups of Africa. <u>Hispanic</u> - All persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish culture or	<u>Asian or Pacific Islander</u> - All persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands. This area includes China, India, Japan, Korea, the Philippine Islands, and Samoa. <u>American Indian or Alaskan Native</u> - All persons having origins in any of the original peoples of North America and
Central or South American, or other Spanish culture or	origins in any of the original peoples of North America, and
origin, regardless of race.	who maintain cultural identification through tribal affiliation or community recognition.

BIDDER CONTRACT COMPLIANCE MONITORING REPORT

PART I - Bidder Information

Company Name Street Address City & State Chief Executive	Bidder Federal Employer Identification Number Or Social Security Number
Major Business Activity (brief description)	Bidder Identification (response optional/definitions on page 1) -Bidder is a small contractor. Yes No -Bidder is a minority business enterprise Yes No (If yes, check ownership category) Black Hispanic Asian American_ American Indian/Alaskan Native Iberian Peninsula Individual(s) with a Physical Disability Female
Bidder Parent Company (If any)	- Bidder is certified as above by State of CT Yes_ No_
Other Locations in Ct. (If any)	

PART II - Bidder Nondiscrimination Policies and Procedures

1. Does your company have a written Affirmative Action/Equal Employment Opportunity statement posted on company bulletin boards? Yes_ No	7. Do all of your company contracts and purchase orders contain non-discrimination statements as required by Sections 4a-60 & 4a-60a Conn. Gen. Stat.? Yes_ No_
2. Does your company have the state-mandated sexual harassment prevention in the workplace policy posted on company bulletin boards? YesNo	8. Do you, upon request, provide reasonable accommodation to employees, or applicants for employment, who have physical or mental disability? YesNo
3. Do you notify all recruitment sources in writing of your company's Affirmative Action/Equal Employment Opportunity employment policy?	9. Does your company have a mandatory retirement age for all employees? YesNo
4. Do your company advertisements contain a written statement that you are an Affirmative Action/Equal Opportunity Employer? Yes_ No_	10. If your company has 50 or more employees, have you provided at least two (2) hours of sexual harassment training to all of your supervisors? YesNoNA
5. Do you notify the Ct. State Employment Service of all employment openings with your company? YesNo	11. If your company has apprenticeship programs, do they meet the Affirmative Action/Equal Employment Opportunity requirements of the apprenticeship standards of the Ct. Dept. of Labor? Yes_No_NA_
 6. Does your company have a collective bargaining agreement with workers? Yes No 6a. If yes, do the collective bargaining agreements contain non-discrim ination clauses covering all workers? Yes No 	12. Does your company have a written affirmative action Plan? Yes_ No_ If no, please explain.
6b. Have you notified each union in writing of your commitments under the nondiscrimination requirements of contracts with the state of Ct? YesNo	13. Is there a person in your company who is responsible for equal employment opportunity? Yes_No_ If yes, give name and phone number.

1. Will the work of this contract include subcontractors or suppliers? Yes_No_

1a. If yes, please list all subcontractors and suppliers and report if they are a small contractor and/or a minority business enterprise. (defined on page 1 / use additional sheet if necessary)

1b. Will the work of this contract require additional subcontractors or suppliers other than those identified in 1a. above?

Yes__No__

PART IV - Bidder Employment Information

JOB CATEGORY *	OVERALL TOTALS	WH (not of I origin)	IITE Hispanic	BLA (not of Hi origin)	CK ispanic	HISPA	NIC	ASIAN of ISLANDI	r PACIFIC ER	AMERICAN ALASKAN N	INDIAN or IATIVE
		Male	Female	Male	Female	Male	Female	Male	Female	male	female
Management											
Business & Financial Ops											
Marketing & Sales											
Legal Occupations											
Computer Specialists											
Architecture/Engineering											
Office & Admin Support											
Bldg/ Grounds Cleaning/Maintenance											
Construction & Extraction											
Installation , Maintenance & Repair											
Material Moving Workers											
Production Occupations											
TOTALS ABOVE											
Total One Year Ago											
	FORM	AL ON THE J	OB TRAINEES (I	ENTER FIGUR	ES FOR THE SA	ME CATE	GORIES AS	ARE SHOWN A	BOVE)		
Apprentices											
Trainees											

Date:

*NOTE: JOB CATEGORIES CAN BE CHANGED OR ADDED TO (EX. SALES CAN BE ADDED OR REPLACE A CATEGORY NOT USED IN YOUR COMPANY)

PART V - Bidder Hiring and Recruitment Practices

1. Which of the following recruitment sources are used by you? (Check yes or no, and report percent used)		 Check (X) any of the below listed requirements that you use as a hiring qualification (X) 		3. Describe below any other practices or actions that you take which show that you hire, train, and promote employees without discrimination		
SOURCE	YES	NO	% of applicants provided by source			
State Employment Service					Work Experience	
Private Employment Agencies					Ability to Speak or Write English	
Schools and Colleges					Written Tests	
Newspaper Advertisement					High School Diploma	
Walk Ins					College Degree	
Present Employees					Union Membership	
Labor Organizations					Personal Recommendation	
Minority/Community Organizations					Height or Weight	
Others (please identify)					Car Ownership	
					Arrest Record	
					Wage Garnishments	

Certification (Read this form and check your statements on it CAREFULLY before signing). I certify that the statements made by me on this BIDDER CONTRACT COMPLIANCE MONITORING REPORT are complete and true to the best of my knowledge and belief, and are made in good faith. I understand that if I knowingly make any misstatements of facts, I am subject to be declared in non-compliance with Section 4a-60, 4a-60a, and related sections of the CONN. GEN. STAT.

(Signature)	(Title)	(Date Signed)	(Telephone)



BID BOND

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

BIDDER (Name and Address):

SURETY (Name, and Address of Principal Place of Business):

OWNER	(Name	and	Address):
-------	-------	-----	---------	----

BID

Bid Due Date:

Description (*Project Name— Include Location*):

BOND				
Вог	nd Number:			
Dat	te:			
Per	nal sum		\$	
	(Words)		(Figures)	
Surety a this Bid	and Bidder, intending to be legally bound here Bond to be duly executed by an authorized of	by, subject ficer, age	ct to the terms set forth below, do each cause nt, or representative.	
BIDDER		SURETY		
	(Seal)		(Seal)	
Bidder's Name and Corporate Seal		Surety's Name and Corporate Seal		
By:		By:		
·	Signature	_	Signature (Attach Power of Attorney)	
	Print Name	-	Print Name	
	Title	-	Title	
Attest:		Attest:		
	Signature	_	Signature	
	Title		Title	
Note: A Provide	ddresses are to be used for giving any requirea e execution by any additional parties, such as jo	' notice. pint ventu	rers, if necessary.	

EJCDC [®] C-430, Bid Bond (Penal Sum Form). Published 2013.
Prepared by the Engineers Joint Contract Documents Committee.
Page 1 of 2



1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to pay to Owner upon default of Bidder the penal sum set forth on the face of this Bond. Payment of the penal sum is the extent of Bidder's and Surety's liability. Recovery of such penal sum under the terms of this Bond shall be Owner's sole and exclusive remedy upon default of Bidder.

2. Default of Bidder shall occur upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents.

- 3. This obligation shall be null and void if:
 - 3.1 Owner accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents, or
 - 3.2 All Bids are rejected by Owner, or
 - 3.3 Owner fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by Paragraph 5 hereof).

4. Payment under this Bond will be due and payable upon default of Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.

5. Surety waives notice of any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by Owner and Bidder, provided that the total time for issuing Notice of Award including extensions shall not in the aggregate exceed 120 days from the Bid due date without Surety's written consent.

6. No suit or action shall be commenced under this Bond prior to 30 calendar days after the notice of default required in Paragraph 4 above is received by Bidder and Surety and in no case later than one year after the Bid due date.

7. Any suit or action under this Bond shall be commenced only in a court of competent jurisdiction located in the state in which the Project is located.

8. Notices required hereunder shall be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier, or by United States Registered or Certified Mail, return receipt requested, postage pre-paid, and shall be deemed to be effective upon receipt by the party concerned.

9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent, or representative who executed this Bond on behalf of Surety to execute, seal, and deliver such Bond and bind the Surety thereby.

10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.

11. The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.

EJCDC [®] C-430, Bid Bond (Penal Sum Form). Published 2013.	
Prepared by the Engineers Joint Contract Documents Committee.	
Page 2 of 2	

STATEMENT OF BIDDER'S QUALIFICATIONS

All questions must be answered and the data given must be clear and comprehensive. This statement must be notarized. If necessary, questions may be answered on separate attached sheets. The BIDDER may submit any additional information they desire. Failure to provide full and complete response to these criteria may be grounds for rejecting Bids.

Name of BIDDER:
Permanent main office address and mailing address:
Type of Organization:
When organized:
If a corporation, where incorporated:
How many years have you been engaged in the
under your present firm or trade name?
General type of work performed by your company:
Background and experience of the principal members of your organization, including officers. (Attach statements.)
Contracts on hand: (Show amount of each Contract, number of employees committed, and the appropriate anticipated dates of completion.)

10. BIDDER's Contact Information:

	a.	Contact Person:	
	b.	Title:	
	c.	Phone:	
	d.	Email:	
11.	List at least three (3) major projects, similar to this Project in scope of work and size of project, completed by your company within the past ten (10) years, stating the location, approximate cost for each, and the month and year completed.		
	a.	Location	
		Project Name	
		Engineer/Design Professional	
		Contact Name for this Project	
		Telephone Number	
		Completion Date	
		Amount of Contract Brief description of work completed (identify any subcontractor completing	

more than 50 percent of this work)

b. Location

Project Name

Engineer/Design Professional

Contact Name for this Project

Telephone Number

Completion Date

Amount of Contract Brief description of work completed (identify any subcontractor completing more than 50 percent of this work)

c. Location

Project Name

Engineer/ Design Professional

Contact Name for this Project

Telephone Number

Completion Date

Amount of Contract

Brief description of work completed (identify any subcontractor completing more than 50 percent of this work) d. Location

- **12.** Have you ever failed to complete any work awarded to you? If so, state details (when, where, why, etc.) as attachment.
- **13.** Has any Corporate Officer, Partner, Joint Venture participant of Proprietor ever failed to completer any work awarded to them in their name or when acting as a principal of another entity? If so, state details (when, where, why, etc.) as attachment._____
- 14. Have you ever been required to pay liquidated damages? If so, state details (when, where, why, etc.) as attachment.
- **15.** Have you ever defaulted on a Contract? If so, state details (when, where, why, etc.):
- **16.** Are there any judgments, claims, disputes, or litigation pending or outstanding involving the BIDDER or any of its officers (or any of its partners it a partnership or any of the individual entities if a joint venture)? If so, state details (when, where, why, etc.) as attachment. Include Project Owner's contact information.
- 17. Credit Available: \$_____

18.	Bank Reference for Item 13 as follows:		
	Bank Reference		
	Address		
	Contact Name		
	Telephone Number		
19.	Bonding Information:		
	Bonding Company:		
	Address:		
	Bonding Agent:		
	Address :		
	Contact Name:		
	Phone:		
	Aggregate Bonding Capacity:		
	Available Bonding Capacity as of date of this Submittal:		

20. BIDDER complies with Public Act 89-368, Section 6, of the Connecticut General Statutes, regarding violations of the occupational safety and health act.

_____Yes _____No

21. The undersigned hereby authorizes and requests any person, firm or corporation to furnish any information requested by the OWNER in verification of the submittals comprising this Statement of BIDDER's Qualifications.

Dated	this	day	/ of	, 20	
		-	(NAME of BIDDER)		
			Ву		
			Title		
STATE OF	}				
COUNTY OF		}			
			being duly sworn	deposes and	
says that he is			of		
			(NAME OF OF	RGANIZATION)	
and that the answers to t	he foregoing	questi	ons and all statement	s therein	
contained are true and correct.					
Subscribed and sworn to	before me th	is	day of		
, 20					
My Commission Expires		-			
			NOTARY	PUBLIC	
LIST OF SUBCONTRACTORS

Herewith is the list of Subcontractors referenced in the bid submitted by:

BIDDER: _____

Dated ______ and which is an integral part of the Bid Form.

The following work will be performed (or provided) by Subcontractors and coordinated by us:

WORK SUBJECT	SUBCONTRACTOR NAME/LOCATION	WOMEN BUSINESS ENTERPRISE? PERSONS WITH DISABILITIES ENTERPRISE? YES/NO

NOTE: Subcontractors will not be permitted on site who have not been listed herein. All subcontractors to be approved by the OWNER.

Norwich Community Development Corporation Norwich, Connecticut Uncas Leap Granite Mill Stabilizatino Project COMPLIES AS

SMALL BUSINESS ENTERPRISE? MINORITY BUSINESS ENTERPRISE?

LIST OF SUBCONTRACTORS

Herewith is the list of Subcontractors referenced in the bid submitted by:

BIDDER: _____

Dated ______ and which is an integral part of the Bid Form.

The following work will be performed (or provided) by Subcontractors and coordinated by us:

WORK SUBJECT	SUBCONTRACTOR NAME/LOCATION	WOMEN BUSINESS ENTERPRISE? PERSONS WITH DISABILITIES ENTERPRISE? YES/NO

NOTE: Subcontractors will not be permitted on site who have not been listed herein. All subcontractors to be approved by the OWNER.

Norwich Community Development Corporation Norwich, Connecticut Uncas Leap Granite Mill Stabilizatino Project COMPLIES AS

SMALL BUSINESS ENTERPRISE? MINORITY BUSINESS ENTERPRISE? CONDITIONS OF THE CONTRACT

This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the controlling Laws and Regulations.

AGREEMENT BETWEEN OWNER AND CONTRACTOR FOR CONSTRUCTION CONTRACT (STIPULATED PRICE)

Prepared by



Issued and Published Jointly by



American Council of Engineering Companies





Copyright © 2013:

National Society of Professional Engineers 1420 King Street, Alexandria, VA 22314-2794 (703) 684-2882 <u>www.nspe.org</u>

American Council of Engineering Companies 1015 15th Street N.W., Washington, DC 20005 (202) 347-7474 www.acec.org

American Society of Civil Engineers 1801 Alexander Bell Drive, Reston, VA 20191-4400 (800) 548-2723 www.asce.org

The copyright for this EJCDC document is owned jointly by the three sponsoring organizations listed above. The National Society of Professional Engineers is the Copyright Administrator for the EJCDC documents; please direct all inquiries regarding EJCDC copyrights to NSPE.

NOTE: EJCDC publications may be purchased at <u>www.ejcdc.org</u>, or from any of the sponsoring organizations above.

INTRODUCTION

This Agreement between Owner and Contractor for Construction Contract (Stipulated Price) ("Agreement") has been prepared for use with the Suggested Instructions to Bidders for Construction Contracts ("Instructions to Bidders") (EJCDC[®] C-200, 2013 Edition); the Suggested Bid Form for Construction Contracts ("Bid Form") (EJCDC[®] C 410, 2013 Edition); and the Standard General Conditions of the Construction Contract ("General Conditions") (EJCDC[®] C-700, 2013 Edition). Their provisions are interrelated, and a change in one may necessitate a change in the others. See also the Guide to the Preparation of Supplementary Conditions (EJCDC[®] C-800, 2013 Edition), and the Commentary on the 2013 EJCDC Construction Documents (EJCDC[®] C-001, 2013 Edition).

In construction contracting, as a general matter the "agreement" is the legal instrument executed (signed) by the project owner and the construction contractor, binding the parties to the terms of the contract. See CSI Project Delivery Practice Guide (2011), Section 11.1.2, p. 210, and CSI Construction Specification Practice Guide (2011), Section 5.1, p. 75. This EJCDC Agreement form serves that basic function, by identifying the parties and Contract Documents, and establishing the Contract Price and Contract Times. This Agreement form is specifically intended for stipulated price (fixed price) contracts—that is, contracts in which Owner and Contractor identify specific lump sums and unit prices as Contractor's compensation for performing the Work. For construction contracts in which the Contract Price is primarily based on costs incurred during construction, users should select EJCDC[®] C-525, Agreement between Owner and Contractor for Construction Contract (Cost-Plus).

This Agreement form is drafted to be flexible enough to be used on projects that are competitively bid, and for public and private contracts that are negotiated or awarded through a proposal process or otherwise. On competitively bid projects, the following documentary information would typically be made available to bidders:

- Bidding Requirements, which include the Advertisement or invitation to bid, the Instructions to Bidders, and the Bid Form that is suggested or prescribed, all of which provide information and guidance for all Bidders, and Bid Form supplements (if any) such as Bid Bond and Qualifications Statement.
- Contract Documents, which include the Agreement, performance and payment bonds, the General Conditions, the Supplementary Conditions, the Drawings, and the Specifications.
- Documents referred to in the Supplementary Conditions or elsewhere as being of interest to bidders for reference purposes, but which are not Contract Documents.

Together, the Bidding Requirements and the Contract Documents are referred to as the Bidding Documents. (The terms "Bidding Documents," "Bidding Requirements," and "Contract Documents" are defined in Article 1 of the General Conditions.) The Bidding Requirements are not Contract Documents because much of their substance pertains to the relationships prior to the award of the Contract and has little effect or impact thereafter. Many contracts are awarded without even going through a bidding process, and thus have no Bidding Requirements, illustrating that the bidding items are typically superfluous to the formation of a binding and comprehensive construction contract. In some cases, however, a bid or proposal will contain numerous line items and their prices; in such case the actual bid or proposal document may be attached as an exhibit to the Agreement to avoid extensive rekeying.

Suggested provisions are accompanied by "Notes to User" and bracketed notes and prompts to assist in preparing the Agreement. The provisions have been coordinated with the other forms produced by EJCDC. Much of the language should be usable on most projects, but modifications and additional provisions will often be necessary. When modifying the suggested language or writing additional provisions, the user must check the other documents thoroughly for conflicts and coordination of terms, and make appropriate revisions in all affected documents.

All parties involved in construction projects benefit significantly from a standardized approach in the location of subject matter throughout the documents. Experience confirms the danger of addressing the same subject matter in more than one location; doing so frequently leads to confusion and unanticipated legal consequences. When preparing documents for a construction project, careful attention should be given to the guidance provided in EJCDC[®] N-122/AIA[®] A521, Uniform Location of Subject Matter (2012 Edition), available at no charge from the EJCDC website, www.ejcdc.org, and from the websites of EJCDC's sponsoring organizations.

CSI MasterFormat^M (50-Division format) designates Document "00 52 XX" for various forms of the owner-contractor agreement. If this format is used, the first page of the Agreement would be numbered 00 52 13-1 (or other appropriate third pair of numbers, in accordance with MasterFormat^M).

Instructions and restrictions regarding the use of this document are set out in the License Agreement that accompanied the document at the time of purchase. To prepare the Agreement for inclusion in a Project Manual or for use in a specific contractual engagement, (1) remove the cover pages and this Introduction, (2) fill in Project-specific information and make revisions to the Agreement, following the guidance in the Notes to Users and bracketed notes and prompts, and the advice of legal counsel, and (3) delete the Notes to Users and bracketed notes and prompts.

AGREEMENT BETWEEN OWNER AND CONTRACTOR FOR CONSTRUCTION CONTRACT (STIPULATED PRICE)

THIS AGREEMENT is by and between	("Owner") and
	("Contractor").

Owner and Contractor hereby agree as follows:

ARTICLE 1 – WORK

1.01 Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

ARTICLE 2 – THE PROJECT

2.01 The Project, of which the Work under the Contract Documents is a part, is generally described as follows:

ARTICLE 3 – ENGINEER

- 3.01 The Project has been designed by _____
- 3.02 The Owner has retained ("Engineer") to act as Owner's representative, assume all duties and responsibilities, and have the rights and authority assigned to Engineer in the Contract Documents in connection with the completion of the Work in accordance with the Contract Documents.

NOTE(S) TO USER:

If an entity or individual other than the design engineer will serve as Owner's representative during construction, then make appropriate revisions and additions to this Agreement, the General Conditions, the Supplementary Conditions, and other Contract Documents regarding the construction-phase roles and duties of the design engineer and such other entity or individual.

ARTICLE 4 – CONTRACT TIMES

- 4.01 *Time of the Essence*
 - A. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

NOTE(S) TO USER:

- 1. Select one of the two alternative Paragraphs 4.02 below, and delete the other. The first uses dates for the time of completion; the second uses number of days.
- 2. If Owner elects to predetermine fixed dates or fixed number of days for completion of the Work, such dates or number of days should be inserted in the appropriate Paragraph 4.02 below prior to the bidding or other

contractor selection process. If the time for completion will be determined through negotiation or a bidding process that allows bidders to specify the time for completion, then leave the blanks below open until the Contract is finalized (e.g., until after the Successful Bidder has been determined and its proposed completion time accepted).

- 4.02 Contract Times: Dates
 - A. The Work will be substantially completed on or before _____, and completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before _____.

[or]

4.02 *Contract Times: Days*

A. The Work will be substantially completed within _____ days after the date when the Contract Times commence to run as provided in Paragraph 4.01 of the General Conditions, and completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions within _____ days after the date when the Contract Times commence to run.

NOTE(S) TO USER:

If the Contract includes Milestones, add the following Paragraph 4.02.B to the selected version of Paragraph 4.02.A:

- B. Parts of the Work shall be substantially completed on or before the following Milestone(s):
 - 1. Milestone 1 [event & date/days]
 - 2. Milestone 2 [event & date/days]
 - 3. Milestone 3 [event & date/days]

4.03 *Liquidated Damages*

- A. Contractor and Owner recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial and other losses if the Work is not completed and Milestones not achieved within the times specified in Paragraph 4.02 above, plus any extensions thereof allowed in accordance with the Contract. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty):
 - 1. Substantial Completion: Contractor shall pay Owner \$______ for each day that expires after the time (as duly adjusted pursuant to the Contract) specified in Paragraph 4.02.A above for Substantial Completion until the Work is substantially complete.
 - 2. Completion of Remaining Work: After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Time (as duly adjusted pursuant to the Contract) for completion and readiness for final payment, Contractor shall pay Owner \$______ for each day that expires after such time until the Work is completed and ready for final payment.

- 3. Liquidated damages for failing to timely attain Substantial Completion and final completion are not additive and will not be imposed concurrently.
- 4. Milestones: Contractor shall pay Owner \$_____ for each day that expires after the time (as duly adjusted pursuant to the Contract) specified above for achievement of Milestone 1, until Milestone 1 is achieved.

NOTE(S) TO USER:

- 1. At Substantial Completion, the Owner is able to use the Work for its intended purpose, by definition. See General Conditions, Paragraph 1.01.A. Achieving Substantial Completion is typically a critical deadline, and the associated damages for missing this deadline are typically significant. The subsequent failure to complete the punch list tasks and bring the Work to a complete close by the final completion date may also result in some degree of damages to Owner—though typically these damages are significantly less than the daily damages for not achieving Substantial Completion on time. Some users may choose to establish liquidated damages only for the failure to achieve Substantial Completion. If that is the case, delete paragraphs 4.03.A.2 and .3 above.
- 2. If failure to achieve a Milestone on time is of such consequence that the assessment of liquidated damages is warranted for the failure to reach the Milestone on time, then retain and complete Paragraph 4.03.A.4; if not, delete it. Add additional similar paragraphs for any additional Milestones subject to a liquidated damages assessment. Liquidated damages for Milestones might, in some cases, be additive to liquidated damages for failing to timely attain Substantial Completion; if so this should be specifically noted.
- B. Bonus: Contractor and Owner further recognize the Owner will realize financial and other benefits if the Work is completed prior to the time specified for Substantial Completion. Accordingly, Owner and Contractor agree that as a bonus for early completion, Owner shall pay Contractor \$______ for each day prior to the time specified in Paragraph 4.02 for Substantial Completion (as duly adjusted pursuant to the Contract) that the Work is substantially complete. The maximum value of the bonus shall be limited to \$______.

NOTE(S) TO USER:

If early completion would be a benefit to Owner, then consider retaining and completing the bonus clause above as 4.03.B. The daily bonus for early completion need not be exactly the same as the daily post-Substantial Completion liquidated damages amounts, but presumably the two amounts will be reasonably compatible. If no bonus will be offered, then delete 4.03.B.

4.04 Special Damages

A. In addition to the amount provided for liquidated damages, Contractor shall reimburse Owner (1) for any fines or penalties imposed on Owner as a direct result of the Contractor's failure to attain Substantial Completion according to the Contract Times, and (2) for the actual costs reasonably incurred by Owner for engineering, construction observation, inspection, and administrative services needed after the time specified in Paragraph 4.02 for Substantial Completion (as duly adjusted pursuant to the Contract), until the Work is substantially complete.

B. After Contractor achieves Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Times, Contractor shall reimburse Owner for the actual costs reasonably incurred by Owner for engineering, construction observation, inspection, and administrative services needed after the time specified in Paragraph 4.02 for Work to be completed and ready for final payment (as duly adjusted pursuant to the Contract), until the Work is completed and ready for final payment.

NOTE(S) TO USER:

EJCDC recommends developing daily liquidated damages amounts that comprehensively account for the full range of Owner's damages, including costs of additional engineering, construction observation, inspection, and administrative services, and potential fines or penalties. Some Owners, however, prefer to charge a Contractor that has not completed the Work on schedule for Owner's additional hard-dollar costs for fines and penalties, and for extended engineering, construction observation, inspection, and administrative services; these charges are levied on top of the daily liquidated damages amount. It is very important if this practice is followed to be certain that the liquidated damages amount does not already include or rely in part on the potential for incurring these very same hard-dollar costs; if it does, then the separate charge for actual costs may be regarded as "double dipping" and the entire framework of liquidated damages for late completion may be called into question.

Those users that choose the "liquidated damages plus actual hard dollar costs" approach may use the preceding "Special Damages" provisions, together with the liquidated damages provisions in Paragraph 4.03, Liquidated Damages, above. Those users that follow the more conventional path of relying on comprehensive daily liquidated damages to cover the full scope of damage done by late Contractor completion should delete the "Special Damages" provisions—Paragraph 4.04—and rely solely on Paragraph 4.03, Liquidated Damages, above.

Finally, note that Paragraph 4.04.B above does not refer to fines or penalties. In the typical case, fines and penalties are linked to Substantial Completion, and are not applicable to delays in final completion of the Work.

ARTICLE 5 – CONTRACT PRICE

- 5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents the amounts that follow, subject to adjustment under the Contract:
 - A. For all Work other than Unit Price Work, a lump sum of: \$_____

All specific cash allowances are included in the above price in accordance with Paragraph 13.02 of the General Conditions.

B. For all Unit Price Work, an amount equal to the sum of the extended prices (established for each separately identified item of Unit Price Work by multiplying the unit price times the actual quantity of that item):

Unit Price Work					
ltem No.	Description	Unit	Estimated Quantity	Unit Price	Extended Price
Total of all Extended Prices for Unit Price Work (subject to final adjustment based on actual quantities)				\$	

The extended prices for Unit Price Work set forth as of the Effective Date of the Contract are based on estimated quantities. As provided in Paragraph 13.03 of the General Conditions, estimated quantities are not guaranteed, and determinations of actual quantities and classifications are to be made by Engineer.

- C. Total of Lump Sum Amount and Unit Price Work (subject to final Unit Price adjustment) \$______.
- D. For all Work, at the prices stated in Contractor's Bid, attached hereto as an exhibit.

NOTE(S) TO USER:

- 1. If adjustment prices for variations from stipulated Base Bid or other baseline quantities have been agreed to, insert appropriate provisions.
- 2. Depending upon the particular project's pricing structure, use 5.01.A alone; 5.01.A, 5.01.B, and 5.01.C together; 5.01.B alone; or 5.01.D alone, deleting those not used and renumbering accordingly. If 5.01.D is used, Contractor's Bid is attached as an exhibit and listed as a Contract Document in Article 9 below.

ARTICLE 6 – PAYMENT PROCEDURES

- 6.01 Submittal and Processing of Payments
 - A. Contractor shall submit Applications for Payment in accordance with Article 15 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.
- 6.02 *Progress Payments; Retainage*
 - A. Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment on or about the day of each month during performance of the Work as provided in Paragraph 6.02.A.1 below, provided that such Applications for Payment have been submitted in a timely manner and otherwise meet the requirements of the Contract. All such payments will be measured by the Schedule of Values established as provided in the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no Schedule of Values, as provided elsewhere in the Contract.
 - 1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments

previously made and less such amounts as Owner may withhold, including but not limited to liquidated damages, in accordance with the Contract

- a. percent of Work completed (with the balance being retainage). If the Work has been 50 percent completed as determined by Engineer, and if the character and progress of the Work have been satisfactory to Owner and Engineer, then as long as the character and progress of the Work remain satisfactory to Owner and Engineer, there will be no additional retainage; and
- b. _____ percent of cost of materials and equipment not incorporated in the Work (with the balance being retainage).
- B. Upon Substantial Completion, Owner shall pay an amount sufficient to increase total payments to Contractor to _____ percent of the Work completed, less such amounts set off by Owner pursuant to Paragraph 15.01.E of the General Conditions, and less _____ percent of Engineer's estimate of the value of Work to be completed or corrected as shown on the punch list of items to be completed or corrected prior to final payment.

NOTE(S) TO USER:

Typical values used in Paragraph 6.02.B are 100 percent and 200 percent respectively, subject to Laws and Regulations specific to the Project.

- 6.03 Final Payment
 - A. Upon final completion and acceptance of the Work in accordance with Paragraph 15.06 of the General Conditions, Owner shall pay the remainder of the Contract Price as recommended by Engineer as provided in said Paragraph 15.06.

ARTICLE 7 – INTEREST

7.01 All amounts not paid when due shall bear interest at the rate of _____ percent per annum.

ARTICLE 8 – CONTRACTOR'S REPRESENTATIONS

- 8.01 In order to induce Owner to enter into this Contract, Contractor makes the following representations:
 - A. Contractor has examined and carefully studied the Contract Documents, and any data and reference items identified in the Contract Documents.
 - B. Contractor has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
 - C. Contractor is familiar with and is satisfied as to all Laws and Regulations that may affect cost, progress, and performance of the Work.
 - D. Contractor has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions and the supplementary Conditions, especially with respect to Technical Data.

NOTE(S) TO USER:

Modify the above paragraph if there are no such reports or drawings.

E. Contractor has considered the information known to Contractor itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Site-related reports and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor; and (3) Contractor's safety precautions and programs.

NOTE(S) TO USER:

If the Contract Documents do not identify any Site-related reports and drawings, modify this paragraph accordingly.

- F. Based on the information and observations referred to in the preceding paragraph, Contractor agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.
- G. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.
- H. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
- I. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
- J. Contractor's entry into this Contract constitutes an incontrovertible representation by Contractor that without exception all prices in the Agreement are premised upon performing and furnishing the Work required by the Contract Documents.

ARTICLE 9 – CONTRACT DOCUMENTS

9.01 Contents

- A. The Contract Documents consist of the following:
 - 1. This Agreement (pages 1 to _____, inclusive).
 - 2. Performance bond (pages _____ to ____, inclusive).
 - 3. Payment bond (pages _____ to ____, inclusive).
 - 4. Other bonds.
 - a. ____(pages ____to ____, inclusive).

NOTE(S) TO USER:

Such other bonds might include maintenance or warranty bonds intended to manage risk after completion of the Work.

5. General Conditions (pages _____ to ____, inclusive).

- 6. Supplementary Conditions (pages _____ to ____, inclusive).
- 7. Specifications as listed in the table of contents of the Project Manual.
- 8. Drawings (not attached but incorporated by reference) consisting of sheets with each sheet bearing the following general title: [or] the Drawings listed on the attached sheet index.
- 9. Addenda (numbers <u>to</u> , inclusive).
- 10. Exhibits to this Agreement (enumerated as follows):
 - a. Contractor's Bid (pages _____ to ____, inclusive).

NOTE(S) TO USER:

- 1. As noted in the introduction to this Agreement, in the typical case biddingrelated documents such as the Instructions to Bidders and Bid are not included as Contract Documents. Include Contractor's Bid as a Contract Document here only as a matter of necessity, for example if the Bid contains numerous line items and their prices, and rekeying such information would be burdensome and susceptible to error.
- 2. List other required attachments (if any), such as documentation submitted by Contractor prior to Notice of Award and documents required by funding or lending agencies.
- 11. The following which may be delivered or issued on or after the Effective Date of the Contract and are not attached hereto:
 - a. Notice to Proceed.
 - b. Work Change Directives.
 - c. Change Orders.
 - d. Field Orders.

NOTE(S) TO USER:

If any of the items listed are not to be included as Contract Documents, remove such item from the list and renumber the remaining items.

- B. The documents listed in Paragraph 9.01.A are attached to this Agreement (except as expressly noted otherwise above).
- C. There are no Contract Documents other than those listed above in this Article 9.
- D. The Contract Documents may only be amended, modified, or supplemented as provided in the General Conditions.

ARTICLE 10 – MISCELLANEOUS

- 10.01 Terms
 - A. Terms used in this Agreement will have the meanings stated in the General Conditions and the Supplementary Conditions.

10.02 Assignment of Contract

A. Unless expressly agreed to elsewhere in the Contract, no assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, money that may become due and money that is due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

10.03 Successors and Assigns

A. Owner and Contractor each binds itself, its successors, assigns, and legal representatives to the other party hereto, its successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

10.04 Severability

A. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Contractor, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

10.05 Contractor's Certifications

- A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 10.05:
 - 1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process or in the Contract execution;
 - "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
 - 3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and
 - 4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

10.06 Other Provisions

A. Owner stipulates that if the General Conditions that are made a part of this Contract are based on EJCDC[®] C-700, Standard General Conditions for the Construction Contract, published by the Engineers Joint Contract Documents Committee[®], and if Owner is the party that has furnished said General Conditions, then Owner has plainly shown all modifications to the standard wording of such published document to the Contractor,

through a process such as highlighting or "track changes" (redline/strikeout), or in the Supplementary Conditions.

NOTE(S) TO USER:

- 1. Delete Paragraph 10.06.A if inapplicable.
- 2. Insert other provisions here if applicable.
- 3. When the Contractor is required in this Contract to accept assignment of a procurement contract, previously entered into by the Owner (as "Buyer") with a manufacturer or distributor (as "Seller") for the direct purchase of goods (most commonly equipment) and related special services, insert at this location in the Agreement language regarding the assignment. For model language, refer to EJCDC® P-200 (Suggested Instructions to Bidders for Procurement Contracts), Notes to User at Article 23. For additional information on assigning a procurement contract, refer to EJCDC® P-001, Commentary on the EJCDC Procurement Documents.
- 4. Performance Requirements and Damages. In some cases the construction contract will contain performance requirements that must be met by the equipment, systems, or facilities constructed or furnished by Contractor. The Owner's remedies for Contractor's failure to meet the performance requirements may include rejection of the items in question; correction remedies; exercise of warranty rights; and acceptance of the underperforming items coupled with a reduction in Contract Price or imposition of damages to compensate Owner for not receiving its full contractual entitlement. Typical damages might be for reduced production or treatment, or for the costs of increased electricity or chemical consumption over the life of the equipment. On some projects the Owner and Contractor may contractually stipulate specific damages that will be owed in the event of specific levels of underperformance. It is important when drafting such provisions to clarify whether the availability of underperformance damages is meant to close off other potential remedies. Most commonly performance provisions (and any stipulated damages amounts) will be located in the Specifications. It may be useful to provide a cross-reference to such provisions here in the Agreement, or in some cases to state the stipulated damages amounts here because of their importance to the pricing of the Contract, which is one of the primary subjects of the Agreement.

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement.

This Agreement will be effective on _____ (which is the Effective Date of the Contract).

NOTE(S) TO USER:

- 1. See Article 21 of the Instructions to Bidders and correlate procedures for format and signing of the documents.
- 2. The Effective Date of the Contract stated above and the dates of any construction performance bond (EJCDC[®] C-610 or other) and construction payment bond (EJCDC[®] C-615 or other) should be the same, if possible. In no case should the date of any bonds be earlier then the Effective Date of the Contract.

OWNER:	CONTRACTOR:
By:	Ву:
Title:	Title:
	(If Contractor is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.)
Attest:	Attest:
Title:	Title:
Address for giving notices:	Address for giving notices:
	License No.: (where applicable)
(If Owner is a corporation, attach evidence of authority to sign. If Owner is a public body, attach evidence of authority to sign and resolution or other documents authorizing execution of this Agreement.)	NOTE TO USER: Use in those states or other jurisdictions where applicable or required.



PERFORMANCE BOND

CONTRACTOR (name and address):

SURETY (name and address of principal place of business):

OWNER (name and address):

CONSTRUCTION CONTRACT

Effective Date of the Agreement: Amount: Description (name and location):

BOND

Bond Number:	
Date (not earlier than the Effective Date of the Agreement of the Construction Contract):	
Amount:	
Modifications to this Bond Form: 🗌 None 📄 See Paragraph 16	

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Performance Bond to be duly executed by an authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

SURETY

(seal)	(seal)
Contractor's Name and Corporate Seal	Surety's Name and Corporate Seal
Ву:	Ву:
Signature	Signature (attach power of attorney)
Print Name	Print Name
Title	Title
Attest:	Attest:
Signature	Signature
Title	Title

Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

EJCDC[®] C-610, Performance Bond Copyright © 2013 National Society of Professional Engineers, American Council of Engineering Companies, and American Society of Civil Engineers. All rights reserved. 1 of 3 1. The Contractor and 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 when applicable to participate in a conference as provided in Paragraph 3.

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

The Owner first provides notice to the Contractor and 3.1 the Surety that the Owner is considering declaring a Contractor Default. Such notice shall indicate whether the Owner is requesting a conference among the Owner, Contractor, and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Paragraph 3.1 shall be held within ten (10) business days of the Surety's receipt of the Owner's notice. 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;

3.2 The Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and

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

4. Failure on the part of the Owner to comply with the notice requirement in Paragraph 3.1 shall not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.

5. 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:

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

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

5.3 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 a contractor selected with the Owners 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 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or

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

5.4.1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or

5.4.2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

6. If the Surety does not proceed as provided in Paragraph 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven 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 Paragraph 5.4, and the Owner refuses the payment 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 shall be entitled to enforce any remedy available to the Owner shall be entitled to enforce any remedy available to the Owner.

7. If the Surety elects to act under Paragraph 5.1, 5.2, or 5.3, 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. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication for:

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

7.2 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 5; and

7.3 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.

8. If the Surety elects to act under Paragraph 5.1, 5.3, or 5.4, the Surety's liability is limited to the amount of this Bond.

9. 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, successors, and assigns.

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. 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 a declaration of 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 periods of limitations 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 page on which their signature appears.

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. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

14. Definitions

14.1 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 for the Contractor for 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.

14.2 Construction Contract: The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.

14.3 Contractor Default: Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.

14.4 Owner Default: Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

14.5 Contract Documents: All the documents that comprise the agreement between the Owner and Contractor.

15. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

16. Modifications to this Bond are as follows:

INDEX TO GENERAL CONDITIONS

ARTICLE	<u>TITLE</u>
1.	DEFINITIONS
2.	BID FORM
3.	BID SECURITY
4.	WAGE RATES AND LABOR LAWS
5.	CONTRACTOR'S BOND AND INSURANCE
6.	NONRESIDENT CONTRACTOR BOND
7.	INDEMNITY OF CITY BY CONTRACTOR
8.	PERMITS, LICENSES AND LAWS
9.	RIGHT TO REJECT BIDS
10.	BIDDERS TO EXAMINE SPECS & VISIT WORK SITE
11.	REPRESENTATIONS OF CONTRACTOR
12	COMPETENT HELP TO BE EMPLOYED
13.	PROHIBITING EMPLOYEE DISCRIMINATION BY CONTRACTOR
13.	SCOPE OF WORK
15	MATERIALS
16	SUBCONTRACTORS
10.	ASSIGNMENT
18	SEPARATE CONTRACTS
10.	
19. 20	LIGHTS BADDIEDS FENCES WATCHMEN AND INDEMNITY
20.	EIGHTS, BARNIERS, FENCES, WATCHMEN AND INDEMINIT
21.	TIRE FRECAUTION
22.	TEDMINATION FOR CONVENIENCE
23.	TITLE TO WORK
24.	TIME OF COMPLETION
23.	
20.	INSPECTION SDIDITOUS LIQUODS
27.	SPIRITOUS LIQUORS
28.	WUKK CHANGES
29. 20	CLAIMS FOR EXTRA WORK
30.	DEFAULIS
31.	IAXES
32.	OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970
33. 24	COMPLIANCE WITH NON-DISCRIMINATION
34.	WORK IN INCLEMENT WEATHER
35.	PROTECTION OF TREES
36.	ARCHEOLOGICAL FINDS
37.	BLASTING
38.	POWER AND WATER
39.	TOILET ACCOMMODATIONS
40.	CLEAN UP
41.	GENERAL GUARANTEE
42.	LIENS
43.	PAYMENTS
44.	PAYMENT TO SUBCONTRACTORS
45.	FINAL INSPECTION AND ACCEPTANCE
46.	FINAL PAYMENT
47.	CORRECTIONS
48.	INTERPRETATION OF DRAWINGS AND SPECS
49.	LOADING
50.	POLLUTION OF WATERS
51.	USE OF "HE", "HIS", OR "HIM"
52.	REFERENCE
53.	SURPLUS MATERIAL

<u>CITY OF NORWICH</u> <u>DEPARTMENT OF PUBLIC WORKS</u> <u>GENERAL CONDITIONS</u>

1. <u>DEFINITIONS</u>

- 1. <u>Owner</u> The Owner of the project is the City of Norwich acting by the Director of Public Works.
- 2. <u>Contractor</u> The term "contractor" as hereinafter used shall refer to the General Contractor for this work or his authorized representative.
- 3. <u>Owner's Representative</u> The term "Owner's Representative" as hereinafter used shall refer to any representative of the Department of Public Works who is appointed by the Department to supervise the work and shall extend to and include any engineer or inspector whom he shall designate to inspect, test, or oversee the work herein specified.
- 4. <u>Department</u> Whenever this term is used in these General Conditions, "Department" shall mean City of Norwich, Department of Public Works.
- 5. <u>City</u> Wherever the term "City" is used in these General Conditions, it shall mean the City of Norwich, the City of Norwich Department of Public Works.
- 6. <u>Contract</u> Wherever the term "Contract" is used in these General Conditions, it shall mean the actual bid form, specifications, drawings, General Conditions and formal purchase order issued to the successful bidder.

2. <u>BID FORM</u>

Attached to these specifications is a bid form which shall be used by the contractor submitting bids on this work.

Bids for this work shall be received at the Office of Purchasing Agent, City of Norwich, City Hall Building, at the time of the date designated on the bid forms, and will be publicly opened and read at the time and place, for this work. One copy of bid is for bidders.

Discrepancies between the indicated product of item unit and unit price and the correct product will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum. Discrepancies between words and figures will be resolved in favor of the words.

3. <u>BID SECURITY</u>

Each contractor submitting a bid shall accompany it with bid Surety in the form of cash, certified check or bid bond equal to 5% of the bid. Should the contractor refuse to go through with the work after having been awarded it by the Owner within the scheduled time, he shall then forfeit the Bid Surety to the Owner who shall use the surety to offset costs to the next lowest bidder or if the contractor fails to provide satisfactory performance and payment bonds as required. The bonding company must be licensed to do business in the State of Connecticut.

4. WAGE RATES AND LABOR LAWS

The wages paid on an hourly basis to any mechanic, laborer or workman employed upon the work herein contracted to be done and the amount of payment or contribution paid or payable on behalf of each such employee to any employee welfare fund, as defined in subsection (h) of section 1. of Public Act No. 93-392 shall be at a rate equal to the rate customary or prevailing for the same work in the same trade or occupation in the town of Norwich. Any contractor who is not obligated by agreement to make payment or contribution on behalf of such employees to any such employee welfare fund shall pay to each employee as part of his wages the amount of payment or contribution for his classification on each pay day.

Please be advised that effective October 1, 1993, Public Act 93-392 requires that all employers on a public works project shall submit weekly to the contracting agency a certified payroll and compliance statement. The certified payroll shall be considered a public record, and every person shall have the right to inspect and copy such records in accordance with the provisions of section 1-15, Connecticut General Statutes.

Upon award of the contract, the contractor shall certify under oath, to the labor commissioner the pay scale to be used by such contractor and any of his subcontractors for work to be performed under the contract.

The provisions of Public Act No. 93-392 shall not apply where the total cost of all work to be performed by all contractors and subcontractors in connection with new construction of any public works project is less than four hundred thousand dollars (\$400,000) or where the total cost of all work to be performed by all contractors and subcontractors in connection with any remodeling, refinishing, refurbishing, rehabilitation, alteration or repair of any public works project is less than one hundred thousand dollars (\$100,000).

All bidders are advised to inform themselves and to comply with the requirements of Federal, State and local laws governing the employment of labor.

5. <u>CONTRACTOR'S BONDS AND INSURANCE</u>

Each bidder must be able to enter into contract, covering the work, within 10 days from the acceptance of his proposal.

The successful bidder must, within ten (10) days from the date of acceptance of his proposal, furnish and file with the City of Norwich, a corporate surety bond or equivalent security, guaranteeing completion of the job in accordance with the proposal and a labor and material payment bond guaranteeing payment of all labor and materials furnished to himself or to his subcontractors for use in the prosecution of the work. This bond or equivalent shall be for 100% of the amount of the contract. The cost of the bonds is to be figured as part of the cost of the job. The Surety company must be one licensed to do business in the State of Connecticut and must be satisfactory to the Owner.

The successful bidder must, within ten (10) days from the date of acceptance of his proposal, file with the City of Norwich, Workmen's Compensation, Comprehensive General Liability, Comprehensive Auto Liability, Certificates of Insurance satisfactory to the City of Norwich, in compliance with the law, and in the following form and amount:

COMPREHENSIVE GENERAL LIABILITY

Premises - Operations - Products/Co	mpleted Operation
General Aggregate	\$2,000,000.00
Occurrence	\$2,000,000.00
COMPREHENSIVE AUTOMOBILE I	LIABILITY
Combined Single Limit	\$1,000,000.00
WORKMEN'S COMPENSATION	Statutory
EMPLOYERS LIABILITY:	\$100,000

Fire and Special Extended Coverage in Builder's Risk policy in the amount of 100% of insurable completed value.

Any additional insurance coverage that may be required for permits issued by other authorities having jurisdiction over the work site shall be provided by the successful bidder.

If subcontractors are employed, same limits as named above shall apply and the certificate of insurance must be filed with the City.

No contract shall be binding upon the City of Norwich until such bond shall have been given and until Comprehensive General Liability, Comprehensive General Auto Liability and Workmen's Compensation policy certificates indicated above have been filed with the City and approved as to form and sufficiency by the Owner. The insurance policy certificate provided by the successful bidder and all subcontractors shall carry a statement by the insurance company that the City of Norwich will receive at least ten (10) days notice prior to cancellation of any portion of the policies or any modifications in the insurance coverage that may affect the City's interest. The cost of all insurance coverage shall be included in the price of the contract cost.

The insurance company must be licensed to do business in the State of Connecticut and must be satisfactory to the City of Norwich. <u>THE CITY OF NORWICH MUST BE NAMED AS ADDITIONAL INSURED.</u>

6. <u>NONRESIDENT CONTRACTOR BOND</u>

Connecticut General Statute Section 12-430(7) requires that when a nonresident contractor enters into a contract they must post a 5% cash or guarantee bond for the total contract amount with the Commissioner of Revenue Services. Bond forms are included at the end of the General Conditions.

7. INDEMNITY OF CITY BY CONTRACTOR

The Contractor shall <u>indemnify</u> and <u>save harmless</u> the City against any and all damages to property or injuries to or death of any person or persons, including property and employees or agents of the City, and shall defend, indemnify and save harmless the City from any and all claims, demands, suits, actions or proceedings of any kind of nature including workmen's compensation claims, of or by anyone whomsoever, in any way resulting from or arising out of the operations in connection herewith, including operations of subcontractors and acts or omissions of employees or agents of contractors or his subcontractors. Insurance coverage specified herein and in any special conditions constitutes the minimum requirements and said requirements shall in no way lessen or limit the liability of contractor under the terms of the contract. The contractor shall procure and maintain, at his own cost and expense, any additional kinds and amounts of insurance which in his own judgment, may be necessary for his proper protection in the prosecution of the work. The Contractor agrees to well and truly save and indemify and keep harmless the City against all liability, judgments, costs and expenses which may in any wise come against the City or which may in any wise result from carelessness, omission or neglect of the Contractor or his agents, employees or workmen in any way arising or resulting from the operation in connection herewith, including all liability to the City resulting from the failure to maintain sufficient railing or fence as required by Section 13a-111, Conn. General Statutes, and against all liability from defects claimed to be in violation of Section 13a-149, Conn. General Statutes. <u>Any additional cost of this save harmless insurance coverage shall be included in the price of the contract.</u>

8. <u>PERMITS, LICENSES AND LAWS</u>

The contractor shall obtain all necessary permits or licenses from the proper authorities and shall give all notices required by law or ordinance, and shall pay all fees and charges incident to the due and lawful prosecution of the work and shall comply with all laws, ordinances and regulations relating thereto.

9. <u>RIGHT TO REJECT BIDS</u>

The City of Norwich reserves the right to reject any and all bids to waive any technicalities and to make such awards, including awards not to the lowest bidder, as it deems in its opinion to be the best interest of the City of Norwich, awards made by the City of Norwich shall be final and conclusive and without recourse or appeal by any remaining bidders.

10. BIDDERS TO EXAMINE SPECIFICATIONS AND VISIT SITE OF WORK

Bidders must carefully examine the specifications, and in addition must use whatever means may be necessary to completely satisfy themselves not only of the quantity of equipment and labor and the extent and requirements of the work, but also of the actual conditions under which the work specified is to be performed. It is therefore pre-requisite that all bidders shall visit the site of the work to determine actual conditions for themselves. No future plea of ignorance of existing conditions shall be considered as a basis for additional compensation.

If bidders fail to fully understand any clause or requirement of the specifications, inquiry must be made of the Owner's Representative for his interpretation of the specifications in advance of the submission of a bid. Failure on the part of the bidder to acquaint themselves thoroughly with the work to be performed and the conditions under which it will be performed will not be considered as a valid excuse for claims of any kind after the award of the contract. The signature of the bidder upon the bid shall be considered proof of his acceptance of full responsibility in this respect.

11. <u>REPRESENTATION OF CONTRACTOR</u>

The contractor represents and warrants that he is financially solvent and that he is experienced and competent to perform the type of work outlined on the specifications and drawings and that he has carefully examined the drawings and specifications along with addendum (or addenda), if any, and the site of the work, and that from his own investigations, he has satisfied himself as to the nature and location of the work, the character, quality and quantity of the surface and subsurface materials likely to be encountered, the character of equipment and other facilities needed for the performance of the work, the general and local conditions and all other materials which may in any way affect the work or its performance and that he is aware of the hazards involved in the work and the danger to life and property both evident and inherent and that he will conduct the work in a careful and safe manner without injury to persons or property. He further warrants that any injury to persons or property resulting from the work shall be the sole responsibility of the contractor.

12. <u>COMPETENT HELP TO BE EMPLOYED</u>

The contractor shall employ an experienced superintendent and foremen, craftsmen and other workmen competent in the work in which they are to be engaged. All work shall be accomplished by able, skilled and competent personnel. If any person employed on the work by the Contractor shall appear to be incompetent or unreliable in any way, or guilty of being noisy, profane, or otherwise disruptive to the surrounding working environment, he shall be discharged immediately upon the request of the Owner and shall not again be employed on the work.

13. PROHIBITING EMPLOYEE DISCRIMINATION BY CONTRACTOR

The contractor agrees and warrants that in the performance of this contract he will not discriminate or permit discrimination against any person applicant for employment or group of persons on the grounds of race, color, religion, national origin, sex, or physical disability, including but not limited to, blindness, unless it is shown by the contractor that such disability prevents performance of the work involved in any manner prohibited by the laws of the United States or of the State of Connecticut and further agrees to provide the commission on human rights and opportunities with such information requested by the commission concerning the employment practices and procedures of the contractor as related to the provisions of this section.

14. <u>SCOPE OF WORK</u>

The contractor, as promptly and as economically as practicable, shall perform all necessary engineering services, shall procure, order and furnish all of the required materials (unless furnished by the Owner), labor, equipment, tools, plant, etc. and perform all of the services necessary for the construction, installation and completion of, and shall construct, install and complete all work called for and described in the specifications, drawings and other descriptive data that may be referred to herein. The Department will provide bench marks and control stakes in order to complete the work. The contractor shall protect and maintain these points for the duration of the construction. It is the obligation of the contractor to utilize these bench marks and stakes to determine lines and grades, and to provide his own grade stakes.

15. <u>MATERIALS</u>

Unless otherwise specified the Contractor warrants that all materials shall be new and shall be of good quality. The Contractor shall, if required by the Owner, furnish samples or other satisfactory evidence as to the kind and quality of materials as directed by the Owner, and all materials there- after furnished by the Contractor shall be in strict accordance with such approved samples.

16. <u>SUB-CONTRACTS</u>

The Contractor agrees to obtain the agreement of every subcontractor to be bound to terms and conditions materially and substantially comparable to those contained herein unless otherwise authorized and approved by the Owner.

17. <u>ASSIGNMENT</u>

No assignment or transfer of the contract, or of any money ormoneys due or to become due thereunder, or any part of such contract or of such money, will be permitted, until and unless the same shall be approved by the Owner, nor shall the contractor subcontract any substantial portion of this contract without Owner's written consent.

18. <u>SEPARATE CONTRACTS</u>

The Owner shall have the right to let other contracts in connection with this work or other work and the Contractor shall afford other Contractors reasonable opportunity for the execution of their work and shall properly connect and coordinate its work with theirs. The Contractor shall be liable for any damage that it, its agents or employees may cause to any other contractor and shall save Owner harmless therefrom. The Owner also reserves the right to perform work related to the contract with his own employees.

19. <u>PARTIAL INVALIDITY</u>

The Owner and Contractor agree that they will perform their obligations hereunder in accordance with all applicable laws, rules, regulations and ordinances now and hereafter in effect. If any term or provision of these conditions shall be found to be illegal or unenforceable then, notwithstanding, these conditions shall remain in full force and effect and such term or provision shall be deemed stricken.

20. LIGHTS, BARRIERS, FENCES, WATCHMEN AND INDEMNITY

The Contractor shall put up and maintain such barriers, fences, lighting and warning lights, danger warning signals and signs as will absolutely prevent accidents during the construction work and protect the work and insure the safety of personnel and public at all times and places; and the contractor shall defend, indemnify and save harmless the City and its agents in every respect from any injury or damage whatsoever caused by any act, omission or neglect of the contractor or his sub-contractor, or their servants or agents including any claims arising out of failure to erect and maintain sufficient railing or fence as required by Section 13a-111, Connecticut General Statutes. The fact that the City may retain the contractor's obligation hereunder.

Contractor shall furnish, maintain and use, and cause all his sub-contractors to furnish, maintain and use all necessary safety devices and safe practices in prosecution of the work and to adopt, follow and maintain such additional safety measures as in the opinion of the Owner's Representative are conducive to safe operation by the contractor and the sub-contractor. The Owner's Representative shall have the right to order any and all work suspended where, in the Owner's Representative's opinion such work is not being carried on in a safe and proper manner, or where persons and property are not being properly protected or safeguarded and such work shall not be resumed until the Owner's Representative's requirements have been met and the Owner's Representative has directed that work shall resume. The work required by the preceding paragraph shall be totally at the contractor's expense.

In addition to above, when and as necessary, or when required by the Owner, the contractor shall post signs and employ watchmen or flagmen for directing of traffic at the site and for excluding at all times unauthorized persons from the work, for which the contractor will not be paid additional compensation.

21. <u>FIRE PRECAUTION</u>

The Contractor shall take adequate precaution against fire; keep flammable material at an absolute minimum; and insure that such material is properly handled and stored. The contractor shall not permit fires to be built or open salamanders to be used in any part of the work without the express approval of the Owner.

22. <u>"OR APPROVED EQUAL" CLAUSE</u>

Whenever a particular brand, make of material, device or equipment is shown as required on bid form by using the name of the proprietary product of a particular manufacturer or vendor, it is to be regarded merely as standard. Any brand, make of material, device or equipment which will perform adequately, may be considered equal and satisfactory providing the bidder offering "or equal" brand, make of material, device or equipment will be responsible for furnishing complete data to the Owner so that he may ascertain if the material is of equal substance and function in his (the Owners) opinion. It shall not be purchased or installed without his written permission.

23. <u>TERMINATION FOR CONVENIENCE</u>

The City hereby reserves the right to terminate the performance of this contract for any reason the City deems appropriate, upon five (5) days written notice to the contractor. The City will pay all actual costs to date of termination, however the contractor shall not be entitled to any profit on unfinished or unearned work.

24. <u>TITLE TO WORK</u>

The title to all work completed or in the course of construction, and all materials on account of which any payment has been made by the Owner to the Contractor, shall be in the Owner.

25. <u>TIME OF COMPLETION</u>

The contractor shall commence work immediately upon receiving notification from the Owner's Representative to do so unless otherwise stated in the bid form and shall follow-up the work diligently without interruption until completed in accordance with the specifications, on or before the date set forth in the specifications.

26. <u>INSPECTION</u>

The Owner or persons designated by the Owner shall have access to and the right to inspect all work in the course of construction.

27. <u>SPIRITUOUS LIQUORS</u>

The contractor shall neither permit nor suffer the introduction or use of spirituous liquors upon the work embraced in this contract. Dope or drugs of any kind unless ordered by a physician are prohibited. Any employee found using spirituous liquors, dope or drugs of any kind unless ordered by a physician shall be immediately discharged.

28. WORK CHANGES

The Owner may make changes by altering, adding to or deleting from the work, without invalidating the contract, but all such changes must be mutually agreed upon in writing, after a breakdown of estimated costs and changes in the contract sum attributable thereto and a statement of any necessary changes in time of completion, between the Owner and the contractor before proceeding with the execution of the work. All such changes in the work shall be authorized on a change order. Charges or credits for work covered by the approved change shall be either (a) an agreed lump sum or (b) actual cost.

29. <u>CLAIMS FOR EXTRA WORK</u>

After the contract has been signed, no claims for extra work will be honored, unless authorized in writing by Owner.

30. <u>DEFAULTS</u>

If the contractor shall fail in this prosecution of the work under this contract, to perform any provisions of this contract, the Owner after a five (5) days written notice to the contractor to remedy said failure, and upon the refusal or neglect of the contractor to remedy such failure, the Owner, without prejudice to any other remedy the Owner may have, shall be entitled to remedy such deficiency and any cost thereby incurred by the Owner shall be paid for the account of the Contractor and deducted from the contract sum then or thereafter due the contractor. Any expense or cost arising out of the contractor's negligence, or that of its agents or employees for replacing defective work, and for the disposal of material wrongly supplied, may be paid by the Owner for the account of the Contractors and deducted from the contract sum then or thereafter due the contractor.

31. <u>TAXES</u>

Purchases made by the City of Norwich, Connecticut, are considered exempt from the payment of Federal excise taxes, Connecticut Sales Taxes, etc. and such taxes shall be identified separately or excluded from the bid prices.

32. OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970

The contractor shall also insure that all his operations and those of his sub-contractor abide by the provisions of the William Steiger Occupational Safety and Health Act of 1970, Public Law 91-956 and all subsequent amendments. In the event of any inconsistencies between the above laws and regulations and the provisions of these conditions, the laws and regulations shall prevail. If the Owner or Representative assigned to the work find the contractor or his sub-contractor are not abiding with this act, the Owner shall immediately stop all work until the contractor or sub-contractor adhere to the provisions of the act at no additional cost to the Owner.

33. <u>COMPLIANCE WITH NON-DISCRIMINATION</u>

Through the policies and programs set forth in this plan, the City of Norwich undertakes to comply fully with all applicable Federal, State and Local laws relating to equal employment opportunity, affirmative action, and non-discrimination, and of the contractor's obligations thereunder. The City will not enter into any contract in the knowledge or belief that the contractor will discriminate on prohibited grounds in employment.

In addition, the City of Norwich is specifically obligated to comply with the following laws and regulations where applicable.

Section 109, Housing & Community Development Act Titles VI and VII, Civil Rights Act of 1964 Title VIII, Civil Rights Act of 1968 Executive Order 11063 Section 3, Housing & Urban Development Act of 1968 Davis Bacon Act (40 U.S.C. 276A - 276A-7)

34. WORK IN INCLEMENT WEATHER

The Owner or the Owner's Representative will determine when conditions are unfavorable for work and may order the work or any portion of it suspended whenever, in his opinion the conditions are not such as will insure first class work. In general, work shall be prosecuted throughout the year and the Contractor will be expected to keep work going and employment of labor as continuous as possible. However, the Contractor shall, and shall cause his sub-contractors to protect carefully his and their work against damage of injury from the weather. If this is not done to the Owner's satisfaction and any damage to the work occurs, the work shall be removed and replaced at the expense of the contractor.

35. <u>PROTECTION OF TREES</u>

The Contractor shall take special care to preserve and protect from injury all trees located along the line of construction and no such trees shall be cut down, trimmed or otherwise cut without permission of the Owner.

36. <u>ARCHEOLOGICAL FINDS</u>

The Contractor for the life of this contract, is herewith required to immediately notify the Engineer in the event that any articles such as "charcoal", "bone", "shell", "cultural objects", "fire cracked stones", or "stone flaking material" or any other such related items of historical significance are discovered.

37. <u>*BLASTING*</u>

The approval of the Owner shall first be obtained before blasting is permitted. Before any explosive, such as dynamite or detonator caps, are stored or used, the contractor shall contact the Fire Department of the City of Norwich for instructions relative to the regulations for possession and use of explosives in the City of Norwich, Connecticut. The Contractor shall obtain all required permits and licenses for possession and use of explosives to be used on the sites of construction.

The Contractor shall also be responsible for the explosive materials at all times; for keeping of records regarding the explosives open at all times to inspection by the Police and Fire Departments of the City of Norwich, Connecticut; for the storage of explosive materials in a secure manner away from all tools, overnight or for any length of time at the site of construction; for the keeping of only such quantity of explo- sive material as may be needed for the work underway; for the immediate reporting to the Police and Fire Departments of the City of Norwich, Connecticut, of all unaccounted for explosive materials; for completely, adequately and carefully covering all blasts with suitable blasting mats in such a manner to prevent damage to landscape features, structures, facilities, privately owned and all other properties and surrounding objects and in a manner that will prevent injury to persons.

Unless specifically permitted, no blasting shall be done between the hours of sunset and sunrise on any day and no blasting will be allowed on Sundays or legal holidays.

Receptacles especially constructed for use in the storage of explosives shall be provided for the storage of explosives and they shall be proof against bullets, fire or other conditions which might cause explosions of the contents. When the need for explosives is ended, all such materials remaining on the job shall be promptly removed from the premises.

The Contractor shall be responsible for conducting any visual surveys and documentary photography in the immediate vicinity of the proposed blast site prior to any blasting. The cost of conducting such surveys and photography shall be included in the unit prices for rock removal.

When blasting is not approved by the Owner, alternate means of rock removal shall be used, such as mechanical splitting or hydraulically splitting. If specified in the contract, the Contractor must perform tests on well water and structures prior to any blasting.

38. <u>POWER AND WATER</u>

Should the Contractor require electric power and/or water, he shall make necessary arrangements with the Norwich Public Utilities Department for securing it and bear any expense involved, unless expressly provided for otherwise in the specifications.

39. <u>TOILET ACCOMMODATIONS</u>

The Contractor shall provide necessary sanitary toilet accommodations maintained in a sanitary condition for the workmen; chemical toilets will be permitted.

40. <u>CLEAN-UP</u>

The Contractor shall regularly and at the completion of the job, clean up all excess backfill materials and debris of every nature in order that the sites worked upon shall be left in a presentable condition as existed at the start of the job. It shall be the responsibility of the contractor to sweep and wash all surfaces and where mortar or grout has been deposited before these materials have an opportunity to bond. In case of dispute, the Owner may remove the rubbish and charge the cost of such removal to the Contractor.

41. <u>GENERAL GUARANTEE</u>

The Contractor shall guarantee his work for a period of one (1) year after the date of the Owner's Representative's final inspection and acceptance as evidenced by final payment. He shall during that period repair promptly, at his own cost and expense all breaks, failures or defects which develop in his work as a result of a faulty material or workmanship and indemnify and hold harmless the Owner from and against all loss or damage arising out of or in connection with any such defects.

42. <u>LIENS</u>

The final payment for the work will not be made until the Owner is satisfied that no liens have, or can be placed for material or labor on this work. If required by the Owner, the contractor shall deliver to the Owner a complete release of all liens arising out of this contract, or receipts in full covering all material and labor for which a lien could be filed against the Owner.

43. PAYMENTS

Payment for the work will be made when the work outlined in the specifications is completed or in accordance with the terms stated herein. Invoices shall be prepared in prescribed form by the contractor and shall be submitted to the Owner's Representative for checking and certification. The City shall retain 5% of invoices until substantial completion of the project is reached. Retainage shall be reduced to 2% upon discretion of the City at that time.

44. <u>PAYMENT TO SUB-CONTRACTOR</u>

The Owner assumes no obligation to pay or to see to the payment of any sum to the sub-contractor. The owner can require a release of all liens for labor. (See Article 41)

45. <u>FINAL INSPECTION AND ACCEPTANCE</u>

Upon receipt of written notice from the contractor that his work is completed the Owner's Representative will make a final inspection and will notify the contractor of all instances in which the work fails to comply with the specifications as well as any defects which he may discover. The contractor shall thereupon immediately rebuild, alter and restore the work so that it will comply with the specifications and he shall remedy any defects at this own cost and expense and to the satisfaction of the Owner's Representative. Upon the completion of such alterations or repairs, the Owner's Representative will issue his certificate of final acceptance of work. The issuance of such certificate of final acceptance by the Owner's Representative shall not prevent the City form recovering damages at any subsequent time for work found to be actually defective during the one year guarantee period that commences after final payment has been made.

46. FINAL PAYMENT

The acceptance by the contractor of payment for the final in- voice made after the Owner's Representative's certification of final acceptance as provided for in these General Conditions, shall release the City of Norwich and every agent of the City from all further claims or liabilities to the contractor of whatever nature except for the remaining sum or sums of money withheld under the provisions of the contract.

47. <u>CORRECTIONS</u>

Erasures or other changes in the bid must be explained or noted over the signature of the bidder.

48. INTERPRETATION OF DRAWINGS AND SPECIFICATIONS

The contractor shall keep at the site of the work at least one copy of the drawings and specifications, and shall at all times give the Owner and his representatives access thereto. Anything shown on the Drawings and not mentioned in the Specifications, or mentioned in the Specifications and not shown on the Drawings, shall have the same effect as if shown or mentioned on both.

49. LOADING

No part of the materials involved in this contract shall be loaded during construction with a load greater than that it can carry with safety. Should any accidents or damages occur through any violation of this requirement, the contractor will be held responsible under his contract and bond.

50. <u>POLLUTION OF WATERS</u>

Special care shall be taken to prevent contamination or muddying up or interfering in any way with the stream flows along the line of work. No Waste matter of any kind will be allowed to discharge into the stream flows or impounded waters of any ponds or other bodies of water.

51. <u>USE OF ''HE'', ''HIS'' OR ''HIM''</u>

Whenever in these General Conditions the masculine works, "he", "his" or "him" are used pertaining to the contractor or buyer, it shall be for brevity and in no way is any sexual discrimination intended.

52. <u>REFERENCE</u>

Any reference to sections or articles shall be construed as pertaining to Connecticut State Highway Standard Specifications Form 814A.

53. <u>SURPLUS MATERIAL</u>

The surplus material, if requested by the Engineer, shall be placed in designated areas, provided the haul does not exceed 1.5 miles. Should no area be designated, the Contractor shall dispose of the material beyond the limits of this project and in both instances this work will be done at no cost to the city.

SUPPLEMENTARY CONDITIONS

These Supplementary Conditions amend or supplement the City of Norwich's General Conditions of the Construction Contract and other provisions of the Bidding Documents as indicated below. All provisions which are not so amended or supplemented remain in full force and effect.

Article 12.

Add: "The CONTRACTOR is to fill out and submit the List of Subcontractors form included in these Bidding Documents."

Add Article 54: Before Starting Construction

- A. Within 10 days after Effective Date of the Contract, CONTRACTOR shall submit to ENGINEER for timely review:
 - 1. A Construction Schedule indicating the times (number of days or dates) for starting and completing the various stages of the Work, and
 - 2. A Schedule of Values for all of the Work which includes quantities and prices of items which, when added together, equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount fo overhead and profit applicable to each item of Work.

CONTRACT FORMS



NOTICE OF AWARD

Date of Issuance:	
Owner:	Owner's Contract No.:
Engineer:	Engineer's Project No.:
Project:	Contract Name:
Bidder:	
Bidder's Address:	
TO BIDDER:	

You are notified that Owner has accepted your Bid dated [______] for the above Contract, and that you are the Successful Bidder and are awarded a Contract for:

[describe Work, alternates, or sections of Work awarded]

The Contract Price of the awarded Contract is: \$_____[note if subject to unit prices, or cost-plus]

[] unexecuted counterparts of the Agreement accompany this Notice of Award, and one copy of the Contract Documents accompanies this Notice of Award, or has been transmitted or made available to Bidder electronically. [revise if multiple copies accompany the Notice of Award]

a set of the Drawings will be delivered separately from the other Contract Documents.

You must comply with the following conditions precedent within 15 days of the date of receipt of this Notice of Award:

- 1. Deliver to Owner [____]counterparts of the Agreement, fully executed by Bidder.
- 2. Deliver with the executed Agreement(s) the Contract security [*e.g., performance and payment bonds*] and insurance documentation as specified in the Instructions to Bidders and General Conditions, Articles 2 and 6.
- 3. Other conditions precedent (if any):

Failure to comply with these conditions within the time specified will entitle Owner to consider you in default, annul this Notice of Award, and declare your Bid security forfeited.

Within ten days after you comply with the above conditions, Owner will return to you one fully executed counterpart of the Agreement, together with any additional copies of the Contract Documents as indicated in Paragraph 2.02 of the General Conditions.

Owner:

Authorized Signature

By:

Title:

Copy: Engineer



NOTICE TO PROCEED		
Owner:	Owner's Contract No.:	
Contractor:	Contractor's Project No .:	
Engineer:	Engineer's Project No.:	
Project:	Contract Name:	
	Effective Date of Contract:	

TO CONTRACTOR:

Owner hereby notifies Contractor that the Contract Times under the above Contract will commence to run on ______, 20_____, 20______, 20______, 20_______, 20_______, 20_______, 20_______, 20_______, 20_______, 20________, 20______, 20______, 20______, 20______, 20______, 20______, 20______, 20______, 20______, 20______, 20______, 20______, 20______, 20______, 20______, 20______, 20______, 20______, 20____, 20___, 20___, 20___, 20___, 20___, 20___, 20____, 20___, 20___, 20___, 20____, 20___

On that date, Contractor shall start performing its obligations under the Contract Documents. No Work shall be done at the Site prior to such date. In accordance with the Agreement, [the date of Substantial Completion is _______, and the date of readiness for final payment is _______] or [the number of days to achieve Substantial Completion is _______, and the number of days to achieve readiness for final payment is ______].

Before starting any Work at the Site, Contractor must comply with the following: [Note any access limitations, security procedures, or other restrictions]

Owner:

Authorized	Signature
7.00011200	Signatare

By:

Title: Date Issued:

Copy: Engineer

APPLICATION FOR PAYMENT NO.

To: _		(OWNER)
From		(CONTRACTOR)
Contr	act:	
Projec	ct:	
OWN For W	IER's Contract No ENGI	NEER's Project No
101 10	vork accomprished unough the date or	
1.	Original Contract Price:	\$
2.	Net change by Change Orders and Written Amendments (+ or -):	\$
3.	Current Contract Price (1 plus 2):	\$
4.	Total completed and stored to date:	\$
5.	Retainage (per Agreement):	
	% of completed Work: \$	Vilute 14 of the Tenend Condition
	% of stored material: \$	_
	Total Retainage:	\$8
6.	Total completed and stored to date less retainage (4 minus 5):	\$
7.	Less previous Application for Payments:	\$
8.	DUE THIS APPLICATION (6 MINUS 7):	\$

Accompanying Documentation:

CONTRACTOR'S Certification:

The undersigned CONTRACTOR certifies that (1) all previous progress payments received from OWNER on account of Work done under the Contract referred to above have been applied on account to discharge CONTRACTOR's legitimate obligations incurred in connection with Work covered by prior Applications for Payment numbered 1 through ______ inclusive; (2) title of all Work, materials and equipment incorporated in said Work or otherwise listed in or covered by this Application for Payment will pass to OWNER at time of payment free and clear of all Liens, security interests and encumbrances (except such as are covered by a Bond acceptable to OWNER indemnifying OWNER against any such Lien, security interest or encumbrance); and (3) all Work covered by this Application for Payments and not defective.

CONTRACTOR By:	CONTRACTOR By: By: State of County of Subscribed and sworn to before me this Subscribed and sworn to before me this May of, Notary Public My Commission expires: Notary Public Payment of the above AMOUNT DUE THIS APPLICATION is recommended. Dated ENGINEER By: EJCDC No. 1910-8-E (1996 Edition) Prepared by the Engineers Joint Contract Documents Committee and endorsed by The Associated General Contractors of America and the Construction Speci Institute.	Dated		
	By:			CONTRACTOR
	State of		By:	
	County of	State of		
	Subscribed and sworn to before me this	County of		
	day of,	Subscribed and sworn to before me this		
	Notary Public My Commission expires: Payment of the above AMOUNT DUE THIS APPLICATION is recommended. Dated ENGINEER By: EJCDC No. 1910-8-E (1996 Edition) Prepared by the Engineers Joint Contract Documents Committee and endorsed by The Associated General Contractors of America and the Construction Speci Institute.	day of,		
	My Commission expires: Payment of the above AMOUNT DUE THIS APPLICATION is recommended. Dated ENGINEER By: EJCDC No. 1910-8-E (1996 Edition) Prepared by the Engineers Joint Contract Documents Committee and endorsed by The Associated General Contractors of America and the Construction Speci Institute.	Notary Public		
PLICATION is recommended. ENGINEER By:	Payment of the above AMOUNT DUE THIS APPLICATION is recommended. Dated	My Commission expires:		
ENGINEER By: dorsed by The Associated General Contractors of America and the Construction Specificat	Dated ENGINEER By: EJCDC No. 1910-8-E (1996 Edition) Prepared by the Engineers Joint Contract Documents Committee and endorsed by The Associated General Contractors of America and the Construction Speci Institute.	Payment of the above AMOUNT DUE THIS APPL	ICATION is recommended.	
ENGINEER By: dorsed by The Associated General Contractors of America and the Construction Specificat	EJCDC No. 1910-8-E (1996 Edition) Prepared by the Engineers Joint Contract Documents Committee and endorsed by The Associated General Contractors of America and the Construction Speci Institute.	Dated		
By:	EJCDC No. 1910-8-E (1996 Edition) Prepared by the Engineers Joint Contract Documents Committee and endorsed by The Associated General Contractors of America and the Construction Speci Institute.			ENGINEER
dorsed by The Associated General Contractors of America and the Construction Specificat	EJCDC No. 1910-8-E (1996 Edition) Prepared by the Engineers Joint Contract Documents Committee and endorsed by The Associated General Contractors of America and the Construction Speci Institute.		By:	
dorsed by The Associated General Contractors of America and the Construction Specificat	Prepared by the Engineers Joint Contract Documents Committee and endorsed by The Associated General Contractors of America and the Construction Speci Institute.	EJCDC No. 1910-8-E (1996 Edition)	• 2	
		Prepared by the Engineers Joint Contract Documents Committee and endo	rsed by The Associated General Contractors	of America and the Construction Specific
		EJCDC No. 1910-8-E (1996 Edition) Prepared by the Engineers Joint Contract Documents Committee and endo Institute.	By:	ENGINEE of America and the Const
AMOUNT COMPLETED AND STORED	⇔	\$		
-----------------------------------	--	-------		
MATERIAL STORED		\$		
%				
AMOUNT		\$		
QUANTITY COMPLETED	•			
SCHEDULE OF VALUES AMOUNT	€	s		
ESTIMATED QUANTITY				
UNIT PRICE	↔			
ITEM		TOTAL		
	1. 10. 10. 10. 10. 10. 10. 10. 10. 10. 1			

Note: Total Schedule of Values Amount should equal the current Contract Price.



Work Change Directive No.

Date of Issuance:	Effective Date:			
Owner:	Owner's Contract No.:			
Contractor:	Contractor's Project No.:			
Engineer:	Engineer's Project No.:			
Project:	Contract Name:			
Contractor is directed to proceed promptly with the following change(s): Description:				
Attachments: [List documents supporting change]				
Purpose for Work Change Directive: Directive to proceed promptly with the Work described herein, prior to agreeing to changes on Contract Price and Contract Time, is issued due to: [check one or both of the following] Non-agreement on pricing of proposed change. Necessity to proceed for schedule or other Project reasons.				
Contract Price \$ Contract Time days Basis of estimated change in Contract I	[increase] [decrease]. [increase] [decrease].			
Lump Sum	Unit Price			
Cost of the Work				
RECOMMENDED:	AUTHORIZED BY: RECEIVED:			
By: Engineer (Authorized Signature)	By: Owner (Authorized Signature) Contractor (Authorized Signature)			
Title:	Title:			
Date:	Date: Date:			
Approved by Funding Agency (if application	ole)			
Bv:	Date:			
Title:				



Date of Issuance:	Effective Date:
Owner:	Owner's Contract No.:
Contractor:	Contractor's Project No.:
Engineer:	Engineer's Project No.:
Project:	Contract Name:

The Contract is modified as follows upon execution of this Change Order: Description:

Attachments: [List documents supporting change]

CHANGE IN CONTRACT PRICE	CHANGE IN CONTRACT TIMES
	[note changes in Milestones if applicable]
Original Contract Price:	Original Contract Times:
	Substantial Completion:
\$	Ready for Final Payment:
	days or dates
[Increase] [Decrease] from previously approved (Change [Increase] [Decrease] from previously approved Change
Orders No to No:	Orders No:
	Substantial Completion:
\$	Ready for Final Payment:
	days
Contract Price prior to this Change Order:	Contract Times prior to this Change Order:
	Substantial Completion:
\$	Ready for Final Payment:
	days or dates
[Increase] [Decrease] of this Change Order:	[Increase] [Decrease] of this Change Order:
	Substantial Completion:
\$	Ready for Final Payment:
	days or dates
Contract Price incorporating this Change Order:	Contract Times with all approved Change Orders:
	Substantial Completion:
\$	Ready for Final Payment:
	days or dates
RECOMMENDED:	ACCEPTED: ACCEPTED:
By: By:	Ву:
Engineer (if required) C	Owner (Authorized Signature) Contractor (Authorized Signature)
Title:	Title
Date: Date	Date
Approved by Funding Agency (if applicable)	
By:	Date:
Title:	

EJCDC [°] C-941, Change Order.
Prepared and published 2013 by the Engineers Joint Contract Documents Committee.
Page 1 of 1



CERTIFICATE OF SUBSTANTIAL COMPLETION

Owner:	Owner's Contract No.:
Contractor:	Contractor's Project No.:
Engineer:	Engineer's Project No.:
Project:	Contract Name:
This [preliminary] [final] Certificate of Substantial Complete	etion applies to:
All Work	The following specified portions of the Work:

Date of Substantial Completion

The Work to which this Certificate applies has been inspected by authorized representatives of Owner, Contractor, and Engineer, and found to be substantially complete. The Date of Substantial Completion of the Work or portion thereof designated above is hereby established, subject to the provisions of the Contract pertaining to Substantial Completion. The date of Substantial Completion in the final Certificate of Substantial Completion marks the commencement of the contractual correction period and applicable warranties required by the Contract.

A punch list of items to be completed or corrected is attached to this Certificate. This list may not be all-inclusive, and 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.

The responsibilities between Owner and Contractor for security, operation, safety, maintenance, heat, utilities, insurance, and warranties upon Owner's use or occupancy of the Work shall be as provided in the Contract, except as amended as follows: [Note: Amendments of contractual responsibilities recorded in this Certificate should be the product of mutual agreement of Owner and Contractor; see Paragraph 15.03.D of the General Conditions.]

Amendments to Owner's	
responsibilities:	🗌 None
	As follows

Amendments to	
Contractor's responsibilities:	None None
	As follows:

The following documents are attached to and made a part of this Certificate: [punch list; others]

This Certificate does not constitute an acceptance of Work not in accordance with the Contract Documents, nor is it a release of Contractor's obligation to complete the Work in accordance with the Contract.

EΣ	ECUTED BY ENGINEER:		RECEIVED:		RECEIVED:
By:		By:		By:	
	(Authorized signature)		Owner (Authorized Signature)		Contractor (Authorized Signature)
Title:		Title:		Title:	
Date:		Date:		Date:	
EJCDC [°] C-625, Certificate of Substantial Completion. Prepared and published 2013 by the Engineers Joint Contract Documents Committee. Page 1 of 1					

DIVISION 1 – GENERAL REQUIREMENTS

SECTION 011000 - SUMMARY OF WORK

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes:
 - a. Project information.
 - b. Work covered by Contract Documents.
 - c. Access to site.
 - d. Work restrictions.
- B. Related Section:
 - a. Division 01 Section "Temporary Facilities" for limitations and procedures governing temporary use of Owner's facilities.
 - b. Division 01 Section "Historic Treatment Procedures".
 - c. Division 02 Section "Selective Demolition".
 - d. Division 03 Section "Concrete"
 - e. Division 06 Section "Wood".
 - f. Division 31 Section "Earthwork"

1.3 PROJECT INFORMATION

A. Project Identification:

Norwich Community Development Corporation City of Norwich Bid # (To be assigned) B. Project Location:196 Yantic StreetNorwich, Connecticut 06360

C. Owner's Representative:

Jason Vincent, Vice President NCDC 77 Main Street Norwich, Connecticut 06360

D. Engineer:

Project Manual prepared by:	GNCB Consulting Engineers, P.C. 130 Elm Street Old Saybrook, Connecticut 06475
Engineer:	Bidding Phase/Construction Administration Phase/Close Out Phase <mark>To be determined</mark>

The OWNER will not have a full-time clerk of the works, however, the work will be observed on a periodic basis by the ENGINEER and/or an Owner's Representative during the Construction Phase.

1.4 WORK COVERED BY CONTRACT DOCUMENTS

- A. The complete project work to stabilize the Uncas Leap Granite Mill is defined by the Contract Documents prepared by GNCB Consulting Engineers, P.C. dated (insert date). The following is a summary description of the project:
 - 1. Remove collapsed structure, debris, and interior finishes from the site. Remove items to appropriate hazardous or non-hazardous disposal area; refer to OWNER-supplied report for analysis of hazardous materials.
 - 2. Remove compromised framing, decking, and materials designated on Construction Documents.
 - 3. Provide new cast-in-place concrete floor on structural fill at ground level.

- 4. Reset loose areas of granite and brick masonry walls at the top 16 inches of the structure and the brick masonry at the adjoining stack at the south side of the structure.
 - a. For bidding purposes, assume 440 square feet of existing granite masonry and 745 square feet of existing brick requires reconstruction. For any masonry work in excess of these values, CONTRACTOR to provide a Unit Price.
- 5. Repoint and infill open pockets at west exterior where adjacent building was demolished.
- 6. Consolidate and reinforce existing framing and roof trusses as designated on Construction Documents.
 - a. For bidding purposes, assume 50 cubic feet of existing framing requires consolidation. For any work in excess of this values, CONTRACTOR to provide a Unit Price.
- 7. Reconstruct collapsed and removed areas of floor including timber framing and decking.
 - a. For bidding purposes, assume 5,600 square feet of decking requires replacement and 12 girders require replacement. For any work in excess of these values, CONTRACTOR to provide a Unit Price.
- 8. Reconstruct collapsed and removed areas of roof including new heavy timber trusses, timber framing, eaves and rakes, and decking.
 - a. For bidding purposes, assume 4,500 of decking requires replacement. For any work in excess of these values, CONTRACTOR to provide a Unit Price.
- 9. Provide new roofing and flashing for the structure and adjacent stack.
- 10. Provide temporary plywood enclosures at window and door openings.
- B. Type of Contract
 - 1. Project will be constructed under a single prime contract, lump sum price, for the work designated in the Contract Documents, i.e., Drawings and Specifications (Project Manual) with add and deduct amounts for unit price items.

1.5 ACCESS TO SITE

- A. Use of Site: Limit use of Project site to work in areas indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.
 - 1. Limits:
 - a. Site disturbance, or use beyond the site perimeter must be approved by OWNER and neighboring property owners.
 - 2. Walkways, Entrances, Easements: Keep driveways, easements, and entrances serving premises clear and available to OWNER, OWNER'S employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials.
 - a. Schedule deliveries to minimize use of entrances by construction operations.
 - b. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.
- B. Condition of Existing Building: Maintain portions of existing building affected by construction operations in a weather tight condition throughout construction period. Repair damage caused by construction operations.

1.6 COORDINATION WITH OCCUPANTS

- A. Owner Occupancy: OWNER shall not occupy the building premises during the entire construction period. Cooperate with OWNER during construction operations to minimize conflicts and facilitate OWNER usage of adjacent real property. Perform the Work so as not to interfere with OWNER'S operations outside the building premises. Maintain existing exits unless otherwise indicated.
 - 1. Provide not less than 72 hours' notice to OWNER of activities that will affect OWNER'S operations outside of the building.
 - 2. On occupancy, OWNER will assume responsibility for maintenance and custodial service for occupied portions of Work.

1.7 WORK RESTRICTIONS

- A. Work Restrictions, General: Comply with restrictions on construction operations.
 - 1. Comply with limitations on use of public streets and property and other requirements of authorities having jurisdiction.
- B. On-Site Work Hours: Limit work in the existing building to normal business working hours, Monday through Friday, except as otherwise indicated.
 - 1. Early Morning Hours: according to regulations by authorities having jurisdiction for restrictions on noisy work.
- C. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by OWNER or others unless permitted under the following conditions and then only after providing temporary utility services according to requirements indicated:
- D. Noise, Vibration, and Odors: Coordinate operations that may result in high levels of noise, odors, or other disruption to OWNER occupancy with OWNER. Vibration shall be minimized.
- 1. Notify ENGINEER not less than two days in advance of proposed disruptive operations.
- 2. Obtain ENGINEER'S written permission before proceeding with disruptive operations.
- E. Nonsmoking Building: Smoking is not permitted within the building or within 25 feet of entrances, operable windows, or outdoor air intakes.
- F. Controlled Substances: Use of tobacco products and other controlled substances is not permitted.
- G. Employee Identification: Provide identification tags for CONTRACTOR personnel working on the Project site. Require personnel to utilize identification tags at all times.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 011000

Norwich Community Development Corporation Norwich, Connecticut Uncas Leap Granite Mill Restoration Project

SUMMARY OF WORK 011000 – Page 6

SECTION 012200 - UNIT PRICES

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 Specification sections, apply to work specified in this section.

1.2 UNIT PRICES

- A. The CONTRACTOR shall provide "add and deduct" Unit Prices for items of work listed in the Bidding Documents and as set forth in the Schedule of Unit Prices in the Bidding Documents. These Unit Prices shall be used to determine adjustments to the Contract Sum when changes in the Work involving said items are made in accordance with the Contract Documents.
- B. All Unit Prices shall apply until the date of Substantial Completion established at the time of contract signing.
- C. All materials, methods of installation, and definitions of terms set forth under the various Unit Price items in the Schedule of Unit Prices shall be as indicated in the Contract Documents.
- D. The CONTRACTOR's lump sum price shall be modified (by add or deduct) based on the actual unit price amounts multiplied by the appropriate add or deduct amount.

1.3 APPLICATION OF UNIT PRICES

- A. The payment lines shall be as indicated in the Contract Documents.
- B. Prior to commencing removal or placement of materials set forth on the Schedule of Unit Prices, the CONTRACTOR shall notify the ENGINEER in sufficient time to permit proper measurements to be taken on behalf of the Owner. Only quantities which have been approved in writing by the ENGINEER will be considered in the determination of adjustments to the Contract Sum.

- C. Performance of work which is not required under the Contract Documents or which is not authorized by written change order, whether or not such work item is set forth hereunder as a Unit Price item, shall not be considered cause for extra payment. The CONTRACTOR will be held fully responsible for such unauthorized work, including the performance of all corrective measures required by the ENGINEER.
- D. Schedule of Unit Prices:
 - CONTRACTOR to consolidate structural deck with less than ½ inches of rot with ConServ Flexible Repair 200 Epoxy, in excess of 100 cubic feet assumed for base bid bidding purposes, per cubic foot. Protect building from weather and shore structure as required.
 - 2. CONTRACTOR to remove existing damaged 4x spline structural deck at first floor and furnish and install replacement 4x tongue-and-groove structural deck, in excess of 2500 square feet removal and replacement assumed for base bid bidding purposes, per square foot. Protect building from weather and shore structure as required.
 - 3. CONTRACTOR to remove existing damaged 3x spline structural deck at second floor and furnish and install replacement 3x tongue-and-groove structural deck, in excess of 3100 square feet removal and replacement assumed for base bid bidding purposes, per square foot. Protect building from weather and shore structure as required.
 - 4. CONTRACTOR to remove existing damaged 1x beaded tongue-and-groove structural deck at roof and furnish and install replacement 1x tongue-and-groove structural deck, in excess of 4500 square feet removal and replacement assumed for base bid bidding purposes, per square foot. Protect building from weather and shore structure as required.
 - 5. CONTRACTOR to consolidate timber girders with less than 4 inches of rot with ConServ Structural 600 Epoxy, in excess of 50 cubic feet assumed for base bid bidding purposes, per cubic foot. Protect building from weather and shore structure as required.

Norwich Community Development Corporation Norwich, Connecticut Uncas Leap Granite Mill Stabilization Project

UNIT PRICES 012200- Page 2

- 6. CONTRACTOR to remove existing damaged timber girders with rot in excess of 4 inches and replace in kind with new timber girders, in excess of 12 girders at first and second floors assumed for base bid bidding purposes, per unit. Protect building from weather and shore structure as required.
- 7. CONTRACTOR to reset brick masonry at inside face of upper 16 inches of exterior wall where exterior granite masonry is being reset and between rafters, in excess of 745 square feet assumed for base bid bidding purposes, per square foot. Protect building from weather and shore structure as required.

END OF SECTION 012200

SECTION 013100 – PROJECT MANAGEMENT AND COORDINATION

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 Specification sections, apply to work specified in this section.

1.2 SUMMARY

- A. This section specifies administrative and procedural requirements for project meetings.
- 1.3 PRECONSTRUCTION MEETING
 - A. Schedule a preconstruction meeting at the project site no later than 10 days prior to commencement of construction activities. Conduct the meeting to review responsibilities and personnel assignments.
 - B. Attendees: The OWNER, ENGINEER, Consultants and the CONTRACTOR and its Superintendent, and other concerned parties shall each be represented at the meeting by persons familiar with and authorized to conclude matters relating to the work.
 - C. Agenda: Discuss items of significance that could affect progress, including such topics as:
 - Construction schedule
 - Critical work sequencing
 - Historic removal, dismantling, and treatment procedures
 - Designation of responsible personnel
 - Procedures for processing field decisions, Change Orders, and Application for Payment Submittals
 - Use of the premises
 - Office, work, and storage areas
 - Site deliveries
 - Security
 - Housekeeping
 - Working hours

Norwich Community Development Corporation Norwich, Connecticut Uncas Leap Granite Mill Stabilization Project PROJECT MANAGEMENT AND COORDINATION 013100 - Page 1

1.4 PROGRESS MEETINGS

- A. Conduct progress meetings. Coordinate with the OWNER and ENGINEER the scheduling of meeting dates. As a minimum, one progress meeting shall be held per month.
- B. Attendees: In addition to representatives of the OWNER and ENGINEER, each subcontractor or other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings by persons familiar with the project and authorized to conclude matters relating to progress.
- C. Agenda: Review and correct or approve minutes of the previous progress meeting. Review progress since the last meeting. Review items of significance as appropriate to the current status of the project. The ENGINEER shall take meeting minutes.

END OF SECTION 013100

SECTION 013300 - SUBMITTALS

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of contract, including General and Supplementary conditions and Division 1 Specification sections, apply to work specified in this section.

1.2 SUBMITTAL PROCEDURE

- A. Label submittals with project name and date.
- B. CONTRACTOR to review and approve all submittals before transmitting to Engineer. Clearly mark submittals with CONTRACTOR'S review and approval markings.
- C. Submit all submittals electronically in PDF form except for product samples to go to OWNER for approval. If CONTRACTOR cannot submit electronically, submit four (4) copies of each submittal to ENGINEER (1 for OWNER, 2 for ENGINEER, and 1 to be returned to the CONTRACTOR).
- D. Allow ten (10) business days for review by ENGINEER.
- 1.3 QUALITY ASSURANCE
 - A. CONTRACTOR'S shop drawings shall be submitted in electronic format and drafted with standard drafting tools and by standard drafting conventions. No free hand sketches or drawings will be accepted.
- 1.4 SCHEDULE OF SUBMITTALS
 - A. Submittals due before start of work:
 - 1. Construction Schedule (Supplementary Conditions, Article 54);
 - 2. Schedule of Values (Supplementary Conditions, Article 54);
 - 3. Performance Bond (General Conditions, Article 5);
 - 4. Insurance Certificates (General Conditions, Article 5);
 - 5. Permits (General Conditions, Article 8);
 - 6. Temporary Facilities (Section 015000);
 - 7. Proposed Protection Measures (Section 024119);
 - 8. Schedule of Selective Removal Activities (Section 024119);
 - 9. Cast-In-Place Concrete (Section 033000)

Norwich Community Development Corporation Norwich, Connecticut Uncas Leap Granite Mill Stabilization Project

SUBMITTALS 013300 - Page 1 Concrete Mix Design

- 10. Steel (Section 051200) Steel Erector's Qualifications Product Information for Shrink-Resistant Grout Product Information for Adhesive Anchors Shop Drawings
- 11. Heavy Timber Construction (Section 061100)
- 12. Roofing Materials: (Section 073113):
- B. Submittals due before substantial completion:
 - 1. Guarantees/Warranties: (Various Sections);
 - 2. Inventory: (Section 024119);
 - 3. Concrete Test Cylinder Results for 7- and 28-day Compressive Tests
 - 4. Timber Consolidation Epoxies: Maintenance Data Warranties
 - 5. Borate Rods: Maintenance Data Warranties
 - 6. Roofing Materials: Maintenance Data Warranties

END OF SECTION 013300

SECTION 013410 - GUARANTEES/WARRANTIES

PART 1 – GENERAL

1.1 Submit Guarantees or Warranties in triplicate on firm's letterhead, properly executed and enacted. Submit in the following form, unless specified otherwise.

Norwich Community Development Corporation 77 Main Street Norwich, Connecticut 06360

We, <u>(firm name)</u>, hereby guarantee (or warrant) all (description of work or product) for a period of <u>years after the</u> substantial completion of the Project indicated above, against <u>(description of the specific types of failures of materials and/or workmanship)</u>, in accordance with the requirements of Section <u>(number)</u>, (section title), page <u>(number)</u>, of the Contract Documents.

Signed	<u>(Subcontractor)</u>
by	(Authorized Agent)
Title	
Business Address	
Signed	(Subcontractor)
by	(Authorized Agent)
Title	

Business Address

1.2 All Guarantees or Warranties supplied by suppliers or manufacturers shall be countersigned by the Subcontractor and the General Contractor.

Norwich Community Development Corporation Norwich, Connecticut Uncas Leap Granite Mill Stabilization 1.3 All signatures and seals (if required) shall be originals. No copies shall be accepted.

1.4 SCHEDULE OF GUARANTEES/WARRANTIES

- A. Architectural Roof Shingles: (Section 073110)
- B. Roof Flashing: (Section 073110)
- C. Timber Consolidation Epoxies: (Section 013591)
- D. Borate Rods: (Section 013591)

END OF SECTION 013410

SECTION 013591 - HISTORIC TREATMENT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes general protection and treatment procedures for areas, rooms, and surfaces in the Project and the following specific work:
 - 1. Historic removal and dismantling;
 - 2. Historic masonry cleaning;
 - 3. Historic masonry repair;
 - 4. Historic masonry repointing;
 - 5. Historic wood repair.
- B. Related Sections:
 - 1. Division 02 Section "Selective Demolition".

1.3 DEFINITIONS

- A. Consolidate: To strengthen loose or deteriorated materials in place.
- B. Dismantle: To disassemble and detach items by hand from existing construction to the limits indicated, using small hand tools and small onehand power tools, so as to protect nearby historic surfaces; and legally dispose of dismantled items off-site, unless indicated to be salvaged or reinstalled.
- C. Existing to Remain: Existing items that are not to be removed, dismantled, or damaged.

- D. Face-Bedding: Setting of stone with rift or natural bedding plans (strata) vertical and parallel to the wall plane rather than horizontal or "naturally bedded," which holds bedding planes together by gravity.
- E. Historic: Spaces, areas, rooms, surfaces, materials, finishes, and overall appearance which are important to the successful preservation, as determined by the ENGINEER.
- F. Low-Pressure Spray: 100 to 400 psi.
- G. Match: To blend with adjacent construction and manifest no apparent difference in material type, species, cut, form, detail, color, grain, texture, or finish, as approved by the ENGINEER.
- H. Rebuilding (Setting) Mortar: Mortar used to set and anchor masonry in a structure, distinct from pointing mortar installed after masonry is set in place.
- I. Reconstruct: To remove existing item, replicate damaged or missing components, and reinstall in original position.
- J. Reinstall: To protect removed or dismantled item, repair and clean it as indicated for reuse, and reinstall it in original position, or where indicated.
- K. Remove: Specifically for historic spaces, areas, rooms, and surfaces, the term means to detach an item from existing construction to the limits indicated, using hand tools and hand-operated power equipment, and legally dispose of it off-site, unless indicated to be salvaged or reinstalled.
- L. Repair: To correct damage and defects, retaining existing materials, features, and finishes while employing as little new material as possible. Includes patching, piecing-in, splicing, consolidating, or otherwise reinforcing or upgrading materials.
- M. Replace: To remove, duplicate, and reinstall entire item with new material. The original item is the pattern for creating duplicates unless otherwise indicated.
- N. Replicate: To reproduce in exact detail, materials, and finish, unless otherwise indicated.
- O. Reproduce: To fabricate a new item, accurate in detail to the original, and in either the same or a similar material as the original, unless otherwise indicated.
- P. Restore: To consolidate, replicate, reproduce, repair, and refinish as required to achieve the indicated results.

Norwich Community Development Corporation Norwich, Connecticut Uncas Leap Granite Mill Stabilization Project HISTORIC TREATMENT PROCEDURES 013591 – Page 2

- Q. Retain: To keep existing items that are not to be removed or dismantled.
- R. Reversible: New construction work, treatments, or processes that can be removed or undone in the future without damaging historic materials, unless otherwise indicated.
- S. Rift: The most pronounced direction of splitting or cleavage of a stone.
- T. Salvage: To protect removed or dismantled items and reuse.
- U. Stabilize: To provide structural reinforcement of unsafe or deteriorated items while maintaining the essential form as it exists at present; also, to reestablish a weather-resistant enclosure.
- V. Strip: To remove existing finish down to base material, unless otherwise indicated.

1.4 MATERIALS OWNERSHIP

A. Historic items, relics, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, antiques, and other items of interest or value to OWNER that may be encountered during removal and dismantling work remain OWNER'S property. Carefully dismantle and salvage each item or object.

1.5 SUBMITTALS

- A. Construction Schedule for Historic Treatments: Indicate for the entire Project the following for each activity to be performed in historic spaces, areas, and on historic surfaces:
 - 1. Detailed sequence of historic treatment work, with starting and ending dates, coordinated with OWNER'S continuing operations and other known work in progress.
 - 2. Equipment Data: Do not use mobile and heavy equipment without CONTRACTOR'S professional engineer's certification that the structure can support the imposed loadings without damage.
 - 3. Submit 20 days before work begins.
- B. Qualification Data for historic treatment supervisors.
- C. Historic Treatment Programs: Submit before work begins.

- D. Submit Shop Drawings for historic masonry repair work including:
 - 1. Plans, elevations, sections, and locations of masonry repair work on the structure and,
 - 2. Locations of scaffolding and points of scaffolding in contact with masonry, including details of each point of contact or anchorage.

1.6 QUALITY ASSURANCE

- A. Historic Treatment Field Supervisor Qualifications: A supervisor regularly engaged in historic treatments similar in nature, materials, design, and extent to this work as specified in each section, and that has completed recent projects with a record of successful in-service performance that demonstrate the person's qualifications to perform this work.
 - 1. Field Supervisor Qualifications: Full-time supervisors experienced in historic treatment work similar in nature, material, design, and extent to that indicated for this Project. Supervisors shall be on Project site during times that historic treatment work is in progress. Supervisors shall not be changed during Project except for causes beyond control.
 - 2. Worker Qualification: Persons who are experienced in historic treatment work of types they will be performing.
- B. Historic Masonry Cleaning Specialist Qualifications: A qualified historic masonry cleaning specialist. Experience cleaning new masonry work is insufficient experience for historic treatment work.
- C. Historic Masonry Repair Specialist Qualifications: A qualified historic masonry repair specialist. Experience installing standard unit or stone masonry is insufficient experience for historic masonry treatment work.
- D. Historic Removal and Dismantling Field Supervisor Qualifications: A qualified historic treatment specialist. General selective demolition experience is not sufficient experience for historic removal and dismantling work.
- E. Historic Wood-Repair Specialist Qualifications: A qualified historic treatment specialist experienced in repairing and replacing wood in whole and in part. Experience only in fabricating and installing new woodwork is insufficient experience for historic wood treatment.
- F. Historic Treatment Program: Prepare a written plan for historic treatment for the whole Project, including each process and protection of

Norwich Community Development Corporation Norwich, Connecticut Uncas Leap Granite Mill Stabilization Project HISTORIC TREATMENT PROCEDURES 013591 – Page 4 surrounding materials during operations. Describe in detail materials, methods, and equipment to be used for each phase of work. Show compliance with indicated methods and procedures specified in this and other sections.

- 1. Debris Hauling: Include plans clearly marked to show debris hauling routes, turning radii, and locations and details of temporary protective barriers.
- 2. If materials and methods other than those indicated are proposed for any phase of historic work, add to the quality-control program a written description of such materials and methods, including evidence of successful use on comparable projects, and demonstrations to show their effectiveness for this Project.
- G. Summary of Work: Prepare mockups of specific historic treatment procedures specified in this Section to demonstrate aesthetic effects and set quality standards for materials and execution.
 - 1. Typical Masonry Cleaning Work: Remove all plant growth at exterior and interior masonry.
 - 2. Typical Masonry Repair Work: Reset loose top sixteen inches of structure as shown on Construction Drawings.
 - 3. Typical Removal Work: Remove timber decking and framing, asphaltic roofing and exterior flashing to the extent shown on Drawings
 - 4. Typical Dismantling Work: Dismantle and reset stone and brick masonry to extent shown on Drawings
- H. Regulatory Requirements: Comply with hauling and disposal regulations of authorities having jurisdiction.
 - 1. General: Review methods and procedures related to historic treatment including, but not limited to, the following:
 - a. Review qualifications of personnel assigned to the work and assign duties.
 - b. Review material application, work sequencing, tolerances, and required clearances.
 - c. Review areas where existing construction is to remain and requires protection.

Norwich Community Development Corporation Norwich, Connecticut Uncas Leap Granite Mill Stabilization Project

- 2. Masonry Cleaning:
 - a. Remove plant growth.
 - b. Inspect masonry for open mortar joints. Where repairs are required, delay further cleaning work until after repairs are completed, cured, and dried to prevent the intrusion of water and other cleaning materials in the wall.
- 3. Masonry Repair:
 - a. Inspect and discuss condition of masonry to be reset.
 - b. Rake out crumpled mortar from joints surrounding masonry to be reset and from joints adjacent to masonry to be reset.
 - c. Reset existing masonry using new mortar materials:
 - i. For stone masonry, provide Type S mortar.
 - ii. For brick masonry, provide Type N mortar.
 - d. As scaffolding is removed, patch anchor holes used to attach scaffolding.
- 4. Masonry Repointing:
 - a. Masonry repointing only to be performed where removal of plant growth results in open mortar joints.
 - b. Do not widen joints.
 - c. Do not rake out and repoint joints where not required.
 - d. Where repointing is required:
 - i. Rinse joint surfaces with water to remove dust and mortar particles. Time rinsing application so, at time of pointing, joint surfaces are damp but free or standing water. If rinse water dries, dampen joint surfaces before pointing.
 - ii. Repoint required joints to a depth equal to twice the joint width and a minimum depth of $\frac{3}{4}$ ".

- iii. Apply pointing mortar in layers not greater than 3/8 inch until a uniform depth is formed. Fully compact each layer thoroughly and allow it to become thumbprint hard before applying next layer.
- iv. After deep areas have been filled to same depth as remaining joints, point joints by placing mortar in layers not greater than 3/8 inch. Fully compact each layer and allow it to become thumbprint hard before applying next layer. Where existing masonry units have worn or rounded edges, slightly recess finished mortar surface below face of masonry to avoid widened joint faces. Take care not to spread mortar beyond joint edges onto exposed masonry surfaces or the featheredge the mortar.
- v. When mortar is thumbprint hard, tool joints to match original appearance of joint. Remove excess mortar from edge of joint by brushing.
- vi. Cure mortar by maintaining in thoroughly damp condition for at least 72 consecutive hours, including weekends and holidays.
- 5. Historic Wood Repair:
 - a. Remove all finishes without damaging structural components.
 - b. Repair wood by consolidation, replacement, partial replacement, and patching as indicated on Construction Drawings.

1.7 STORAGE AND PROTECTION OF HISTORIC MATERIALS

- A. Existing Historic Materials to Remain or be Reset: Protect construction indicated to remain or be reset against damage and soiling from construction work.
- 1.8 PROJECT CONDITIONS
 - A. OWNER shall not occupy the building during construction. Conduct removal and dismantling work so that OWNER'S neighbor's operations will not be disrupted.
 - B. Conditions existing at time of inspection for bidding purpose will be maintained by OWNER as far as practical.

Norwich Community Development Corporation Norwich, Connecticut Uncas Leap Granite Mill Stabilization Project HISTORIC TREATMENT PROCEDURES 013591 – Page 7

- C. Notify ENGINEER of discrepancies between existing conditions and Drawings before proceeding with removal and dismantling work.
- D. Weather Limitations: Proceed with installation and repairs only when existing and forecasted weather conditions permit masonry cleaning work to be performed according to product manufacturers' written instructions and specified requirements.
- E. Clean and repair masonry surfaces only when air temperature is 40 deg F and above and is predicted to remain so for at least seven days after completion of cleaning.
 - 1. Cold-Weather Requirements:
 - a. When air temperature is below 40 deg, heat mortar ingredients, masonry repair materials, and existing masonry walls to produce temperature between 40 and 120 deg F.
 - b. When mean daily air temperature is below 40 deg F, provide enclosure and heat to maintain temperatures above 32 deg F within the enclosure for seven days after repair.
 - 2. Hot-Weather Requirements: Protect masonry repair when temperature and humidity conditions produce excessive evaporation of water from mortar and repair materials. Provide artificial shade and wind breaks, and use cooled materials as required to minimize evaporation. Do not apply mortar to substrates with temperatures of 90 deg F and above unless otherwise indicated.
- F. Hazardous Materials: Suspect materials have been tested for containing asbestos and lead based paint. Abatement of identified asbestos containing materials shall be included in the project work.
 - 1. OWNER will make results of HAZMAT survey report and recommendations by HAZMAT consultant available at the time of project bidding.
 - 2. CONTRACTOR responsible for proper abatement of hazardous materials as defined in Item 1 above.

PART 2 - PRODUCTS - (Not Used)

- 2.1 Wood Epoxy
 - A. ConServ series as supplied by ConServ Epxoy, Waterford, CT
- 2.2 Mortars
 - A. Type S for Granite ASTM C 270
 - B. Type N for Brick ASTM C 270

PART 3 - EXECUTION

3.1 HISTORIC REMOVAL AND DISMANTLING EQUIPMENT

- A. Removal Equipment: Use only hand-held tools except as follows or unless otherwise approved by the ENGINEER on a case-by-case basis:
- B. Dismantling Equipment: Use manual, hand-held tools, except as follows or otherwise approved by the ENGINEER on a case-by-case basis:
 - 1. Torches and welding are not permitted on the project at any time.

3.2 EXAMINATION

- A. Preparation for Removal and Dismantling: Examine construction to be removed or dismantled to determine best methods to safely and effectively perform removal and dismantling work. Examine adjacent work to determine what protective measures will be necessary. Make explorations, probes, and inquiries as necessary to determine condition of construction to be removed or dismantled and location of utilities and services to remain that may be hidden by construction that is to be removed or dismantled.
 - 1. Inventory and record the condition of items to be removed and dismantled for reinstallation or salvage.

3.3 PROTECTION, GENERAL

A. Ensure that supervisory personnel are on-site and on duty when historic treatment work begins and during its progress.

Norwich Community Development Corporation Norwich, Connecticut Uncas Leap Granite Mill Stabilization Project

- B. Protect persons, motor vehicles, surrounding surfaces of building, building site, plants, and surrounding buildings from harm resulting from historic treatment procedures.
 - 1. Use only proven protection methods, appropriate to each area and surface being protected.
 - 2. Provide barricades, barriers, and temporary directional signage to exclude public from areas where historic treatment work is being performed.
 - 3. Provide temporary rain drainage during work to direct water away from building.
 - 4. Contain dust and debris generated by removal and dismantling work and prevent it from reaching the public.
 - 5. Protect floors and other surfaces along haul routes from damage, wear, and staining.
- C. Protection of Historic Materials:
 - 1. Protect existing historic materials with temporary protections and construction. Do not deface existing materials.
 - 2. Prevent mortar from staining face of surrounding masonry and other surfaces.
 - 3. Handle historic masonry to be reset to prevent overstressing, chipping, defacement, and other damage.
 - 4. Do not attach temporary protection to historic surfaces.
- D. Comply with each product manufacturer's written instructions for protections and precautions. Protect against adverse effects of products and procedures on people and adjacent materials, components, and vegetation.

3.4 PROTECTION DURING APPLICATION OF CHEMICALS

A. No chemicals allowed.

3.5 GENERAL HISTORIC TREATMENT

- A. Ensure that supervisory personnel are present when historic treatment work begins and during its progress.
- B. Follow the procedures in subparagraphs below and procedures approved in historic treatment program.
 - 1. Retain as much existing material as possible; repair and consolidate rather than replace.
 - 2. Use additional material or structure to reinforce, strengthen, prop, tie, and support existing material or structure during all work until final construction is complete.
 - 3. Use reversible processes wherever possible.
 - 4. Use historically accurate repair and replacement materials and techniques unless otherwise indicated.
- C. Notify ENGINEER of visible changes in the integrity of material or components whether due to environmental causes including biological attack, UV degradation, freezing, or thawing; or due to structural defects including cracks, movement, or distortion.
 - 1. Do not proceed with the work in question until directed by ENGINEER.
- D. Where Work requires existing features to be removed or dismantled and reinstalled, perform these operations without damage to the material itself, to adjacent materials, or to the substrate.

3.6 CLEANING MASONRY, GENERAL

- A. Removing Plant Growth: Completely remove visible plant, moss, and shrub growth from masonry surfaces. Carefully remove plants, creepers, and vegetation by cutting at roots and allowing remaining growth to dry as long as possible before removal. Remove loose soil and plant debris from open masonry joints to whatever depth they occur.
- 3.7 MASONRY REPAIR, GENERAL
 - A. Repair Appearance Standard: Repaired surfaces to have a uniform appearance as viewed from 20 feet away by ENGINEER.

- B. Carefully remove entire units from joint to joint, without damaging surrounding masonry, in a manner that permits re-setting with same units.
- C. Support and protect remaining masonry around where masonry is to be removed and reset.
- D. Notify ENGINEER of unforeseen detrimental conditions including voids, cracks, bulges, loose units in existing masonry, rotted wood, rusted metal, and other deteriorated items.
- E. After masonry has been reset and mortar is fully hardened, thoroughly clean exposed masonry surfaces of excess mortar and foreign matter; use wood-scrapers, stiff-nylon or –fiber brushes, clean water, applied by low-pressure spray.
 - 1. Do not use metal scrapers or brushes
 - 2. Do not use acidic or alkaline cleaners.

3.8 HISTORIC REMOVAL AND DISMANTLING

- A. General: Removal and dismantling work shall be performed by qualified historic removal and dismantling personnel. Ensure that historic removal and dismantling field supervisors are present when removal and dismantling work begins and during its progress.
- B. Perform work in accordance with the historic treatment program.
 - 1. Perform cutting by hand or with small power tools wherever possible. Cut holes and slots neatly to size required, with minimum disturbance of adjacent work.
 - 2. Do not operate air compressors inside building, unless approved by ENGINEER in each case.
 - 3. Do not drill or cut columns, beams, joists, girders, or other structural supporting elements, except per ENGINEER'S drawings.
 - 4. Do not use explosives.
- C. Unacceptable Equipment: Keep equipment that is not permitted for historic removal or dismantling work away from the vicinity where such work is being performed.

3.9 HISTORIC WOOD REPAIR, GENERAL

A. Clean wood of mildew, algae, moss, plant material, loose paint, grease, dirt, and other debris by scrubbing with bristle brush or sponge and detergent solution. Scrub mildewed areas with mildewcide. After cleaning, rinse thoroughly with fresh water. Allow to dry before repairing.

B. Condition replacement wood members and replacement units to prevailing conditions at installation areas before installing.

C. Remove broken, rotted, and decayed wood down to sound wood.

D. Stabilize and repair wood to reestablish structural integrity and weather resistance while maintaining the existing form of each item.

E. Where mechanical abrasion is needed for the work, use only the gentlest mechanical methods, such as scraping and natural-fiber bristle brushing that will not abrade wood substrate. Do not use abrasive methods, such as sanding, wire brushing, or power tools except as indicated as part of the historic treatment program as approved by the ENGINEER.

F. Replace wood where indicated. Duplicate and replace units with new wood matching existing wood. Use surviving prototypes to create patterns for duplicate replacements.

END OF SECTION 013591

SECTION 015000 - TEMPORARY FACILITIES

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 01 Specification sections, apply to work specified in this section.

1.2 SUMMARY

- A. This Section specifies requirements for temporary services and facilities, including utilities, construction and support facilities, security, protection, and project signage.
- 1.3 SUBMITTAL
 - A. Project sign in accordance with CCCT requirements. See <u>sample</u> project sign layout. Project sign shall be located according to OWNER.
- 1.4 QUALITY ASSURANCE
 - A. Comply with industry standards and all Local, State, Federal and OSHA requirements.

1.5 PROJECT CONDITIONS

A. Keep temporary services and facilities clean and neat in appearance. Operate in a safe and efficient manner. Take necessary fire-prevention measures. Do not overload facilities or permit them to interfere with progress. Do not allow hazardous, dangerous, or unsanitary conditions or public nuisances to develop or persist on the site.

1.6 SAFETY AND PROTECTION

- A. Provide barricades, fences, and other protection measures as required.
- B. Minimize storage of flammable materials, and ensure that such materials are properly handled and stored. Provide fire extinguisher near locations of flammable products.
- C. Construct a project sign in accordance with the attached (see next page for CCCT guidelines).

Norwich Community Development Corporation Norwich, Connecticut Uncas Leap Granite Mill Stabilization Project

- 1.7 SITE
 - A. Coordinate the following with the OWNER and ENGINEER at the preconstruction meeting:
 - 1. Site access
 - 2. Storage area
 - 3. Dumpster location
 - 4. Use of inside space
 - 5. Project Sign
 - B. Limited parking is available at the site.
 - C. Contractor shall construct a project sign in accordance with OWNER'S requirements (see attached sample). OWNER to approve the sign prior to its fabrication. The CONTRACTOR'S bid shall include the cost of the sign.
- 1.8 TEMPORARY UTILITIES
 - A. CONTRACTOR may use existing water and electrical systems for temporary construction purposes at no charge, so long as use is not abused, if available. Connect to and supplement these systems as required, and restore to original condition at end of job.
 - B. CONTRACTOR may use permanent electrical system for temporary purposes during construction, so long as use is not abused. Maintain system properly and at completion of job, restore to original condition.
 - C. Office Trailer: Space inside the existing building is not available for CONTRACTOR'S use. An outside office trailer is required.
 - D. Storage Trailer: A trailer to store materials is required. No other storage is available on site.
 - E. There are no restroom facilities available. A portable toilet unit is required.

1.9 SCAFFOLDING AND OTHER TEMPORARY CONSTRUCTION FACILITIES

A. Scaffolding – Required.

END OF SECTION 015000

Norwich Community Development Corporation Norwich, Connecticut Uncas Leap Granite Mill Stabilization Project

Project SponsorsUncas Leap Granite Mill StabilizationStabilizationPartner #1, Inc. Town, ConnecticutConnect Commission on Culture & TourismEngineer:GNCB Consulting Engineers, P.C. Contractor: (Insert Name of Contractor)	Preservation Means Jobs in Your Community Job Description, Project Funded by
State of Connecticut The Honorable Dannel P. Malloy Govenor	Administered by: Connecticut Commission on Culture & Tourism Historic Preservation and Museum Division
SECTION 017700 - PROJECT CLOSE-OUT

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 01 Specification sections, apply to work specified in this section.
- 1.02 SUMMARY
 - A. This section specifies administrative and procedural requirements for project close-out.

1.03 FINAL CLEANING

- A. Before inspection for substantial completion, do all necessary cleaning. Refer to General Conditions, Article 40 and specific requirements for units of work included in the appropriate Specification sections.
- B. Except as otherwise indicated or requested by the OWNER or ENGINEER, remove temporary protection devices and temporary construction facilities.
- C. Clean the project site of rubbish, litter, and other foreign substances. Rake grounds to a smooth, even-textured surface.
- D. Comply with safety standards and governing regulations for cleaning operations. Do not burn waste materials at the site. Do not bury debris or excess materials on the OWNER'S property. Do not discharge volatile or other harmful or dangerous materials into drainage systems. Remove waste materials from the site and dispose of in a lawful manner.

1.04 SUBSTANTIAL COMPLETION

- A. Refer to General conditions, Article 45.
- B. Complete the following before requesting the ENGINEER'S inspection for Certification of Substantial Completion:

- 1. Submit a statement showing an accounting of any changes to the Contract Sum.
- 2. Transmit all submittals and warranties required.
- 3. Complete final cleaning requirements.
- C. Submit written certification to ENGINEER that Work is substantially complete. Include list of items to be corrected or completed. OWNER and ENGINEER will inspect completed Work within three (3) days after receipt of certification.
- D. Should ENGINEER determine that Work is substantially complete, ENGINEER will prepare a punch list of items to be completed or corrected, as determined by inspection and prepare the Certificate of Substantial Completion, including:
 - 1. Date of Substantial Completion.
 - 2. Punch list, including schedule for completion of items.
 - 3. Responsibilities of OWNER and CONTRACTOR for insurance, maintenance and cleaning, security, etc.

1.05 **FINAL COMPLETION**

- A. Refer to General Conditions, Articles 45 and 46.
- B. Complete the following before requesting the ENGINEER'S inspection for certification of final acceptance and final payment:
 - Submit final statement of accounting to ENGINEER, reflecting additions and deductions from change orders, cash allowances, unit prices, deductions for uncorrected work and other adjustments. ENGINEER will prepare final change order reflecting approved adjustments to Contract Sum based on this statement. CONTRACTOR shall then submit application for final payment incorporating final change order.
 - 2. Submit consent of surety to final payment.
 - 3. Upon completion of punch list items, CONTRACTOR shall submit written certification to ENGINEER that Work has been completed in accordance with Contract Documents and is ready for final inspection.

Norwich Development Community Corporation Norwich, Connecticut Uncas Leap Granite Mill Development Corporation

PROJECT CLOSEOUT 017700 - Page 2 4. Should ENGINEER consider that Work is not finally complete, Contractor shall complete work within three (3) days and request re-inspection.

END OF SECTION 017700

Norwich Development Community Corporation Norwich, Connecticut Uncas Leap Granite Mill Development Corporation

PROJECT CLOSEOUT 017700 - Page 3 **DIVISION 2 – EXISTING CONDITIONS**

SECTION 024119 - SELECTIVE DEMOLITION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Demolition and removal of selected portions of building or structure.
 - 2. Demolition and removal of selected site elements.
- B. Related Requirements:
 - 1. Division 1 Section "Summary" for restrictions on the use of the premises, Owner-occupancy requirements, and phasing requirements.
 - 2. Division 1 Section "Historic Treatment Procedures" for masonry resetting.

1.3 DEFINITIONS

- A. Remove: Detach items, whether hazardous or non-hazardous, from existing construction and legally dispose of them off-site unless indicated to be removed and salvaged or removed and reinstalled.
- B. Existing to Remain: Existing items of construction that are not to be permanently removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.

1.4 MATERIALS OWNERSHIP

A. Unless otherwise indicated, demolition waste becomes property of Contractor.

- B. Historic items, relics, antiques, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, and other items of interest or value to Owner that may be uncovered during demolition remain the property of Owner.
 - 1. Carefully salvage in a manner to prevent damage and promptly return to Owner.

1.5 PREINSTALLATION MEETINGS

- A. Construction Conference: Conduct conference at Project Site.
 - 1. Inspect and discuss condition of construction to be selectively demolished.
 - 2. Review structural load limitations of existing structure.
 - 3. Review and finalize selective demolition schedule and verify availability of materials, demolition personnel, equipment, and facilities needed to make progress and avoid delays.
 - 4. Review requirements of work performed by other trades that rely on substrates exposed by selective demolition operations.
 - 5. Review areas where existing construction is to remain and requires protection.
 - 6. Identify items that require special disposal as hazardous material, if any.

1.6 INFORMATIONAL SUBMITTALS

- A. Proposed Protection Measures: Submit report, including drawings, that indicates the measures proposed for protecting individuals and property. Indicate proposed locations and construction of barriers.
- B. Schedule of Selective Demolition Activities: Indicate the following:
 - 1. Detailed sequence of selective demolition and removal work, with starting and ending dates for each activity. Ensure OWNER's and adjacent properties' operations are uninterrupted.
 - 2. Interruption of utility services. Indicate how long utility services will be interrupted if at all.

- 3. Coordination for shutoff, capping, and continuation of utility services.
- 4. Use of elevator and stairs.
- C. Temporary Shoring: Submit calculations and drawings prepared by a licensed Professional Engineer that show Temporary Shoring, at least two weeks before field implementations.

1.7 CLOSEOUT SUBMITTALS

- A. Landfill Records: Indicate receipt and acceptance of hazardous wastes by a landfill facility licensed to accept hazardous wastes.
- 1.8 QUALITY ASSURANCE
 - A. Licensed Professional Engineers to complete calculations and or drawings of any temporary shoring.

1.9 FIELD CONDITIONS

- A. Conditions existing at time of inspection for bidding purpose will be maintained by OWNER as far as practical.
- B. Notify ENGINEER of discrepancies between existing conditions and Drawings before proceeding with selective demolition.
- C. Hazardous Materials: Refer to OWNER's HAZMAT Consultant's Report and Bidding Documents for Work required for Hazardous Materials abatement under this contract. This work to be included in the Bid Submitted for this Project.
- D. Historic Areas: Demolition and hauling equipment and other materials shall be of sizes that clear surfaces within historic spaces, areas, rooms, and openings, including temporary protection, by 12 inches or more.
- E. Storage or sale of removed items or materials on-site is not permitted.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
- B. Standards: Comply with ANSI/ASSE A10.6 and NFPA 241.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.
- B. When unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure the nature and extent of conflict. Promptly submit a written report to ENGINEER.
- C. Engage a professional engineer to perform an engineering survey of condition of building to determine whether removing any element might result in structural deficiency or unplanned collapse of any portion of structure or adjacent structures during selective building demolition operations.
 - 1. Perform surveys as the Work progresses to detect hazards resulting from selective demolition activities.

3.2 PREPARATION

- A. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
- B. Temporary Facilities: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.
 - 1. Provide protection to ensure safe passage of people around selective demolition area and egress outlets of the building.

- 2. Provide temporary weather protection, during interval between selective demolition of existing construction on exterior surfaces and new construction, to prevent water leakage and damage to structure and interior areas.
- C. Temporary Shoring: Provide and maintain shoring, bracing, and structural supports as required to preserve stability and prevent movement, settlement, or collapse of construction and finishes to remain, and to prevent unexpected or uncontrolled movement or collapse of construction being demolished. Refer to submittals to be prepared by a Licensed Professional Engineer.
 - 1. Strengthen or add new supports when required during progress of selective demolition.

3.3 SELECTIVE DEMOLITION, GENERAL

- A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
 - 1. Proceed with selective demolition systematically, from higher to lower level. Complete selective demolition operations above each floor or tier before disturbing supporting members on the next lower level.
 - 2. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping, to minimize disturbance of adjacent surfaces. Temporarily cover openings to remain.
 - 3. Do not use cutting torches at any time.
 - 4. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site.
 - 5. Remove structural framing members and lower to ground by method suitable to avoid free fall and damage to existing masonry walls and to prevent ground impact or dust generation.

- 6. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
- 7. Dispose of demolished items and materials promptly.
- B. Work in Historic Areas: In historic spaces, areas, and rooms or on historic surfaces, the terms "demolish" or "remove" shall mean historic "removal" or "dismantling" as specified in Division 1 Section "Historic Treatment Procedures."
- C. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition.

3.4 SELECTIVE DEMOLITION PROCEDURES FOR SPECIFIC MATERIALS

- A. Roofing: Remove no more existing roofing than what can be covered in one day by new roofing and so that building interior remains watertight and weather-tight. See Division 07 Section 073110 for new roofing requirements.
 - 1. Remove existing roof membrane, flashings, and roof accessories.
 - 2. Remove existing roofing system down to substrate.

3.5 DISPOSAL OF DEMOLISHED MATERIALS

- A. General: Remove demolished materials from Project site and legally dispose of them.
 - 1. Do not allow demolished materials to accumulate on-site.
 - 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
 - 3. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.
- B. Burning: Do not burn demolished materials.

3.6 CLEANING

A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

3.7 SELECTIVE DEMOLITION SCHEDULE

- A. Existing Items to be Removed:
 - 1. Exterior Entrance Platform at West of Mill
 - 2. Plant Growth at Exterior Walls and Upper Levels
 - 3. Debris and Collapsed Structure
 - 4. All Roofing Materials
 - 5. All Interior Finishes (partitions, wall plaster, floor and ceiling finishes, etc)
 - 6. Water-damaged structure (framing and decking) as indicated on Construction Drawings
- B. Existing Items to Remain:
 - 1. All items unless otherwise noted.

END OF SECTION 024119

DIVISION 3 – CONCRETE

DIVISION 3 CONCRETE

SECTION 033000 - CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

- 1.1 RELATED DOCUMENTS:
 - A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 Specification sections, apply to work specified in this section.
- 1.2 QUALITY ASSURANCE:
 - A. Codes and Standards: Comply with provisions of following Codes, Specifications and standards, except where more stringent requirements are shown or specified:
 - 1. American Concrete Institute, ACI, "Specifications for Structural Concrete for Buildings" (ACI 301 latest revision).
 - 2. Concrete Reinforcing Steel Institute, CRSI, "Manual of Standard Practice" latest edition.
 - B. CONTRACTOR to submit 7- and 28-Day compression test results for cylinders taken during construction.

PART 2 - PRODUCTS

- 2.2 REINFORCING MATERIALS:
 - A. Reinforcing Bars: ASTM A615, Grade 60, deformed.
 - B. Welded wire fabric (WWF): ASTM A185, welded steel wire fabric.

2.3 CONCRETE MATERIALS:

- A. Portland Cement: ASTM C 150, Type 1 use one brand of cement throughout project.
- B. Normal weight aggregates: ASTM C33, Provide aggregates from a single source for exposed concrete.

Norwich Community Development Corporation Norwich, Connecticut Uncas Leap Granite Mill Stabilization Project

CAST-IN-PLACE CONCRETE 033000 – Page 1

- C. Water: Potable.
- D. Air Entraining Admixture: ASTM C260.
- E. Water reducing Admixture: ASTM C494, Type A. and not contain more chloride ions than are present in municipal drinking water.

2.4 RELATED MATERIALS:

- A. Moisture Barrier:
 - 1. Permeance of less than 0.01 Perms as tested in accordance with ASTM E 1745 Section 7.
 - 2. Other performance criteria:
 - a. Strength: ASTM E 1745 Class A.
 - b. Thickness: 15 mils minimum
- B. Membrane-Forming Curing Compound: ASTM C 309, Type 1.
- 2.5 PROPORTIONING AND DESIGN OF MIXES:
 - A. Prepare design mixes for each type and strength of concrete in accordance with ACI 301 Section 3.9 "Proportioning on the Basis of Previous Field Experience or Trial Mixtures", Chapter 3 as indicated on drawings.
 - B. Mix designs may be adjusted when material characteristics, job conditions, weather, test results or other circumstances warrant. Do not use revised concrete mixes until submitted to and accepted by ENGINEER.
 - C. Use air entraining admixture in all concrete, providing not less than 2% nor more than 4% entrained air for concrete not exposed to freezing and thawing.
 - D. Do not use admixtures containing calcium chloride.

2.6 CONCRETE MIXING:

- A. Ready mix concrete shall be in accordance with ASTM C94.
- B. For Job-site mixing use drum type batch machine mixture, mixing not less than 1-1/2 minutes for one cu. yd. or smaller capacity. Increase mixing

Norwich Community Development Corporation Norwich, Connecticut Uncas Leap Granite Mill Stabilization Project

CAST-IN-PLACE CONCRETE 033000 – Page 2 time at least 15 seconds for each additional cu. yd. or fraction thereof.

PART 3 - EXECUTION

3.2 PLACING REINFORCEMENT:

- A. Comply with CRSI, recommended practice for "Placing Reinforcing Bars".
- B. Position, support and secure reinforcement against displacement. Locate and support with metal chairs, runners, bolsters, spacers and hangers, as required. Set wire ties so ends are directed into concrete, not toward exposed concrete surfaces.
- C. Install welded wire fabric in as long lengths as practical, lapping at least one mesh.

3.3 CONCRETE PLACEMENT:

- A. Comply with ACI 304, placing concrete in a continuous operation within planned joints or sections. Do not begin placement until work of other trades affecting concrete is completed.
- B. Consolidate placed concrete using mechanical vibrating equipment with hand rodding and tamping, so that concrete is worked around reinforcement and other embedded items and into forms.
- C. Protect concrete from physical damage or reduced strength due to weather extremes during mixing, placement and curing.

In cold weather comply with ACI 318-83

In hot weather comply with ACI 318-83

3.06 CONCRETE FINISHES:

A. Apply trowel finish to monolithic slab surfaces. Consolidate concrete surfaces by finish troweling, free of trowel marks, uniform in texture and appearance.

3.07 CONCRETE CURING AND PROTECTION:

A. Begin initial curing as soon as free water has disappeared from exposed surfaces. Where possible, keep continuously moist for not less than 72 hours. Continue curing by use of moisture-retaining cover or

Norwich Community Development Corporation Norwich, Connecticut Uncas Leap Granite Mill Stabilization Project

CAST-IN-PLACE CONCRETE 033000 – Page 3 membrane-forming curing compound. Cure formed surfaces by moist curing until forms are removed. Provide protection as required to prevent damage to exposed concrete surfaces.

END OF SECTION 033000

Norwich Community Development Corporation Norwich, Connecticut Uncas Leap Granite Mill Stabilization Project

CAST-IN-PLACE CONCRETE 033000 - Page 4

DIVISION 5 – METALS

SECTION 051200 - STRUCTURAL STEEL FRAMING

PART 1 - GENERAL

- 1.1 RELATED DOCUMENTS:
 - A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 Specification sections, apply to work specified in this section.
- 1.2 SUMMARY:
 - A. Extent of structural steel work is shown on Drawings.
 - B. Structural steel is that work defined in American Institute of Steel Construction, AISC 303, "Code of Standard Practice for Steel Buildings and Bridges" and as otherwise shown on Drawings.
- 1.3 QUALITY ASSURANCE:
 - A. Codes and Standards: Comply with Provisions of following except as otherwise indicated:
 - 1. AISC 303 "Code of Standard Practice for Steel Buildings and Bridges" Latest Edition.
 - 2. AISC 360 "Specifications for Structural Steel Buildings Latest Edition.
 - 3. American Welding Society, AWS, D1.1 "Structural Welding Code".
 - 4. ASTM A 6 "General Requirements for Delivery of Rolled Steel Plates, Shapes, Sheet Piling and Bars for Structural Use".
 - B. Fabricator Qualifications: Fabricator must have a minimum of 5 years successful experience in the fabrication of structural steel framing components similar, in nature, to those required for this project. In addition, the fabricator shall have a quality control program acceptable to the Engineer.
 - C. Installer Qualifications: A qualified installer who participates in the AISC Quality Certification Program and is designated an AISC–Certified Erector.

D. Qualifications for Welding Work: Qualify procedures and personnel according to AWS D.1/D1.1M "Structural Welding Code-Steel."

Provide certification that welders to be employed in work have satisfactorily passed AWS qualification tests within previous 12 months.

- 1. If recertification of welders is required, retesting will be Contractor's responsibility.
- E. Contractor shall correct deficiencies in structural steel work which inspections have indicated to be not in compliance with requirements.
- 1.4 SUBMITTALS:
 - A. Product Data: Submit producer's or manufacturer's specifications and installation instructions for following products. Include laboratory test reports and other data to show compliance with specifications (including specified standards).
 - 1. Adhesive Anchors
 - 2. Shrinkage-resistant grout.
 - B. Shop Drawings: Submit shop drawings (in electronic form) including complete details and schedules for fabrication and assembly of structural steel members, procedures and diagrams.
 - 1. Include details of cuts, connections, splices, camber, holes and other pertinent data.
 - 2. Include embedment drawings.
 - 3. Provide setting drawings, templates, and directions for installation of anchor bolts and other anchorages to be installed by others.
 - 4. Indicate welds by standard AWS symbols, distinguishing between shop and field welds, and show size, length, and type of each weld. Show backing bars that are to be removed and supplemental fillet welds where backing bars are to remain.
 - 5. Indicate type, size, and length of bolts, distinguishing between shop and field bolts. Identify pre-tensioned and slip-critical, high-strength bolted connections.

C. Qualification Data for Installer, Fabricator, Testing Agencies.

1.5 DELIVERY, STORAGE AND HANDLING:

- A. Deliver anchor bolts and anchorage devices, which are to be embedded in cast-in-place concrete or masonry, in ample time to not delay that work.
- B. Store materials to permit easy access for inspection and identification. Keep steel members off the ground, using pallets, platforms, or other supports. Protect steel members and packaged materials from corrosion and deterioration.
 - 1. Do not store materials on structure in a manner that might cause distortion or damage to members or supporting structures. Repair or replace damaged materials or structures as directed.
- D. Store fasteners in a protected place, in sealed containers with manufacturer's labels intact.
 - 1. Fasteners may be repackaged provided Owner's testing and inspecting agency observes repackaging and seal containers.
 - 2. Clean and re-lubricate bolts and nuts that become dry and rusty before use.
 - 3. Comply with manufacturer's written recommendations for cleaning and lubricating ASTM F 1852 Fasteners and for retesting fasteners after re-lubrication.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS:

- A. Connections: Provide details of connections required by the Contract Documents to be selected or completed by structural-steel fabricator to withstand loads indicted and comply with other information and restrictions indicated.
- 2.2 MATERIALS:
 - A. Metal Surfaces, General: For fabrication of work which will be exposed to view, use only materials which are smooth and free of surface blemishes including pitting, seam marks, roller marks, rolled trade names and roughness. Remove such blemishes by grinding, or by welding and

Norwich Community Development Corporation Norwich, Connecticut Uncas Leap Granite Mill Stabilization Project

STRUCTURAL STEEL 051200 – Page 3 grinding, prior to cleaning, treating and application of surface finishes.

- B. Structural Steel, Plates and Bars: ASTM A 36 or ASTM A 572 Grade 50 or ASTM A529, as indicated on the Drawings.
- C. Material for galvanizing shall be geometrically suitable for galvanizing as specified in ASTM A 384 and A 385.
- D. Anchor Bolts: ASTM F 1554, unheaded type unless otherwise indicated on the Drawings.
- E. High-Strength Bolts, Nuts and Washers: ASTM A325 or A490, Type 1, heavy-hex steel structural bolts.
- F. Unfinished Threaded Fasteners: ASTM A36, regular low-carbon steel bolts and nuts.
 - 1. Provide hexagonal heads and nuts for all connections.
- L. Electrodes for Welding: Comply with AWS Code.
- M. Non-Metallic Non-Shrink Grout: Premixed, non-metallic, non-corrosive, non-staining product containing selected silica sands, Portland cement, shrinkage compensating agents, plasticizing and water reducing agents, complying with ASTM C1107 and suitable to be placed for 30-minute working time.
- N. Primer:
 - 1. Low-Emitting Materials: Paints and coatings shall comply with the testing and product requirements of the California Department of Public Health's (formerly, the California Department of Health Services). "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources using Environmental Chambers".
 - 2. Primer Fabricators standard lead and chromate-free, nonasphaltic, rust-inhabiting primer complying with MPI #79 and compatible with topcoat.

2.3 FABRICATION:

A. Shop Fabrication and Assembly: Fabricate and assemble structural

assemblies in shop to greatest extent possible. Fabricate items of structural steel in accordance with AISC Specifications and as indicated on final shop drawings.

- 1. Properly mark and match-mark materials for field assembly. Fabricate for delivery sequence which will expedite erection and minimize field handling of materials.
- 2. Complete structural steel assemblies, including welding of units, before starting shop-priming operations.
- B. Thermal Cutting: Perform thermal cutting by machine to greatest extent possible.
 - 1. Plane thermally cut edges to be welded to comply with requirements in AWS D1.1.
 - 2. Thermal cutting in the field is not permitted.
- C. Finishing: Accurately finish ends of columns and other members transmitting bearing loads.
- D. Connections: Weld or bolt shop connection, as indicated.
- 2.3 SHOP PRIMING:
 - A. Shop prime steel surfaces
 - B. Priming: Immediately after surface preparation, apply primer according to manufacturer's written instructions and at rate recommend by SSPC to provide a minimum dry film thickness of 1.5 mils. Use priming methods that result in full coverage of joints, corners, edges, and exposed surfaces.
 - C. Painting: Prepare steel and apply a one-coat, nonasphaltic primer complying with SSPC-PS Guide 7.00, "Priming Systems", to provide a dry thickness of not less than 1.5 mils.

PART 3 - EXECUTION:

- 3.1 INSPECTION:
 - A. Erector must examine areas and conditions under which structural steel

work is to be installed, and notify Contractor in writing of conditions detrimental to proper and timely completion of work.

3.2 ERECTION:

- A. Temporary Shoring and Bracing: Provide temporary shoring and bracing members with connections of sufficient strength to bear imposed loads. Remove temporary members and connections when permanent members are in place and final connections are made. Provide guy lines to achieve proper alignment of structures as erection proceeds. Do not remove temporary shoring supporting composite deck construction until cast-in-place concrete has attained its design compressive strength.
- B. Temporary Planking: Provide temporary planking and working platforms as necessary to effectively complete work.
- C. Anchor Bolts: Furnish anchor bolts and other connectors required for securing structural steel to foundations and other in-place work.

Furnish templates and other devices as necessary for presetting bolts and other anchors to accurate locations.

- 1. Refer to Division 3 of these specifications for anchor bolt installation requirements in concrete.
- D. Setting Bases and Bearing Plates: Clean concrete and masonry bearing surfaces of bond-reducing materials and roughen to improve bond to surfaces. Clean bottom surface of base and bearing plates.
- E. Tighten anchor bolts after supported members have been positioned and plumbed. Do not remove wedges or shims, but if protruding, cut off flush with edge of base or bearing plate prior to packing with grout.
- F. Pack non-shrink grout solidly between bearing surfaces and bases or plates to ensure that no voids remain. Finish exposed surfaces, protect installed materials and allow to cure.
 - 1. For proprietary grout materials, comply with manufacturer's instructions.
- F. Field Assembly: Set structural frames accurately to lines and elevations indicated. Align and adjust various members forming a part of a complete frame or structure before permanently fastening. Clean bearing surfaces and other surfaces which will be in permanent contact before assembly.

Perform necessary adjustments to compensate for discrepancies in elevations and alignment.

- Level and plumb individual members of structure within specified AISC tolerances. Adjust and weld in final position all structural steel angles which support architectural finish material. Adjustments are to be made to the tolerances of the applied finish materials.
- 2. Establish required leveling and plumbing measurements on mean operating temperature of structure. Make allowances for difference between temperature at time of erection and mean temperature at which structure will be when completed and in service.
- G. Comply with AISC Specifications for bearing, adequacy of temporary connections, alignment, and removal of paint on surfaces adjacent to field welds.

Do not enlarge unfair holes in members by burning or by use of drift pins, except in secondary bracing members. Ream holes that must be enlarged to admit bolts.

- H. Gas Cutting: Do not use gas cutting torches in field for correcting fabrication errors in structural framing.
- I. Do not use thermal cutting.
- J. Touch-Up Painting: Immediately after erection, clean field welds, bolted connections, and abraded areas of shop paint. Apply paint to exposed areas with same material as used for shop painting.
- K. Touch-Up Galvanized Surfaces: Repair damaged galvanized surfaces in accordance with ASTM A 780. Dry film thickness of applied repair materials to be not less than galvanized coating thickness required by ASTM A 123 or A 153, as applicable. Touch up prime-painted surfaces with same galvanized primer applied in shop. Clean damaged surfaces first to assure proper paint adhesion.

END OF SECTION 051200

DIVISION 6 – WOOD, PLASTICS, AND COMPOSITES

SECTION 061100 - GENERAL CARPENTRY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.
- B. Examine all drawings and all other sections of the specifications for requirements therein affecting the work of this Section whether or not such work is specifically mentioned in this Section.
- C. This section contains information that applies to all work performed under the contract and is hereby made a part of each specification section.

1.2 SUMMARY:

- A. Section Includes
 - 1. Framing with dimension lumber.
 - 2. Framing with timber.
 - 3. Wood blocking, cants, and nailers.
 - 4. Solid-sawn wood decking.
 - 5. Plywood Sheathing

1.3 DEFINITIONS:

- A. Exposed Framing: Framing not concealed by other construction.
- B. Dimension Lumber: Lumber of 2 inches nominal or greater but less than 5 inches nominal least dimension.
- C. Timber: Lumber of 5 inches nominal or greater in least dimension.
- D. Lumber grading agencies, and the abbreviations used to reference them, include the following:

- 1. NeLMA: Northeastern Lumber Manufacturers' Association.
- 2. NLGA: National Lumber Grades Authority.
- 3. RIS: Redwood Inspection Service.
- 4. SPIB: The Southern Pine Inspection Bureau.
- 5. WCLIB: West Coast Lumber Inspection Bureau.
- 6. WWPA: Western Wood Products Association.

1.4 SUBMITTALS:

- A. Product Data: For each type of process and factory-fabricated product. Indicate component materials and dimensions and include construction and application details.
- B. Material Certificates: For dimension lumber specified to comply with minimum allowable unit stresses. Indicate species and grade selected for each use and design values approved by the ALSC Board of Review.
- C. Shop Drawings: Submit shop drawings showing full dimensions of each heavy timber and entire layout of heavy timber system, including decking. Show details of connection, connectors, and other accessories.
- D. Evaluation Reports: For the following, from ICC-ES:
 - 1. Borate Rods.
- 1.5 DELIVERY, STORAGE, AND HANDLING:
 - A. Schedule delivery of materials to avoid extended on-site storage and to avoid delaying the Work.
 - B. Stack lumber, decking, and sheathing flat with spacers beneath and between each bundle to provide air circulation. Protect lumber from weather by covering with waterproof sheeting, securely anchored. Provide for air circulation around stacks and under coverings.

PART 2 - PRODUCTS

- 2.1 WOOD PRODUCTS, GENERAL:
 - A. Certified Wood: Materials shall be produced from wood obtained from forests certified by an FSC-accredited certification body to comply with FSC STD-01-001, "FSC Principles and Criteria for Forest Stewardship, for the following:

- 1. Dimension lumber framing.
- 2. Timber.
- 3. Miscellaneous lumber.
- B. Lumber: DOC PS 20 and applicable rules of grading agencies indicated. If no grading agency is indicated, provide lumber that complies with the applicable rules of any rules-writing agency certified by the ALSC Board of Review. Provide lumber graded by an agency certified by the ALSC Board of Review to inspect and grade lumber under the rules indicated.
 - 1. Factory mark each piece of lumber with grade stamp of grading agency.
 - 2. In DOC PS 20, dressed sizes of green lumber are larger than dry lumber.
 - 3. Where nominal sizes are indicated, provide actual sizes required by DOC PS 20 for moisture content specified. Where actual sizes are indicated, they are minimum dressed sizes for dry lumber.
 - 4. Provide dressed lumber, S4S, unless otherwise indicated.
- C. Certified Wood: Timbers shall be certified as "FSC Pure" according to FSC STD-01-001, "FSC Principles and Criteria for Forest Stewardship," and to FSC STD-40-004, "FSC Standard for Chain of Custody Certification,"
- D. Maximum Moisture Content of Lumber: 19 percent.

2.2 DIMENSION LUMBER FRAMING:

- A. Joists, Rafters, and Other Framing Not Listed Above: Douglas fir-larch; WCLIB or WWPA; No. 2 grade
- B. Joists, Rafters, and Other Framing Not Listed Above: Any species and grade with a modulus of elasticity of at least 1,600,000 psi and an extreme fiber stress in bending of at least 900 psi for 2-inch nominal thickness and 12-inch nominal width for single-member use.
- 2.3 TIMBER FRAMING:
 - A. Comply with American Institute for Timber Construction AITC 108, "Standard for Heavy Timber Construction."

- B. Comply with DOC PS 20 and with grading rules of lumber-grading agencies certified by ALSC's Board of Review as applicable.
 - 1. Factory mark each item of timber with grade stamp of grading agency.
 - 2. For exposed timber indicated to receive a stained or natural finish, apply grade stamps to surfaces that are not exposed to view, or omit grade stamps and provide certificates of grade compliance issued by grading agency.
- C. Provide timber framing complying with the following requirements, according to grading rules of grading agency indicated:
 - 1. Species and Grade: Douglas fir-larch; No. 1 grade; NLGA, WCLIB, or WWPA.
 - 2. Maximum Moisture Content: 19 percent.
 - 3. Extreme Fiber Stress in Bending: 1350psi.
 - 4. Modulus of Elasticity: 1,600,000psi.
 - 5. Additional Restriction: Free of heart centers.
- D. End Sealer: Manufacturer's standard, transparent, colorless wood sealer, which is effective in retarding the transmission of moisture at cross-grain cuts.
- E. Penetrating Sealer: Manufacturer's standard, translucent, penetration wood sealer, which will not interfere when applying wood stain and transparent finish, or paint finish.
- F. Seal Coat: After fabrication and surfacing of each unit, apply a saturation coat of penetration sealer on surfaces of each unit.

2.4 SOLID-SAWN WOOD DECKING:

- A. General: Comply with DOC PS 20 and with applicable grading rules of inspection agencies certified by ALSC's Board of Review.
- B. Comply with American Institute for Timber Construction AITC 112, "Standard for Tongue-and-Groove Heavy Timber Roof Decking."
- C. Certified Wood: Wood roof decking shall be certified as "FSC Pure" according to FSC STD-01-001, "FSC Principles and Criteria for Forest Stewardship," and to FSC STD-40-004, "FSC Standard for Chain of Custody Certification."
- D. Standard for Solid-Sawn Wood Roof Decking: Comply with AITC 112.

- E. Roof Decking Species: Douglas fir-larch
- F. Decking Nominal Size: Refer to Construction Drawings.
- G. Decking Grade: Select Decking; Extreme Fiber Stress in Bending: 1750psi; Modulus of Elasticity: 1,800,000 psi.
- H. Grade Stamps: Factory mark each item with grade stamp of grading agency. Apply grade stamp to surfaces that are not exposed to view.
- I. Moisture Content: Provide wood roof decking with 19 percent maximum moisture content at time of dressing.
- J. Seal Coat: After fabrication and surfacing of each unit, apply a heavy saturation coast of penetration sealer, except where treated wood included a water repellent.

2.5 PLYWOOD SHEATHING:

- A. Plywood Sheathing: DOC PS 1; Exposure 1, Structural 1 sheathing.
- B. Factory mark panels to indicate compliance with applicable standard.

2.6 MISCELLANEOUS LUMBER:

- A. General: Provide miscellaneous lumber indicated and lumber for support or attachment of other construction including blocking, cants, and nailers.
- B. For items of dimension lumber size, provide Construction or No. 2 grade lumber of any species.
- C. For blocking not used for attachment of other construction, Utility, Stud, or No. 3 grade lumber of any species may be used provided that it is cut and selected to eliminate defects that will interfere with its attachment and purpose.
- D. For blocking, cants, and nailers used for attachment of other construction, select and cut lumber to eliminate knots and other defects that will interfere with attachment of other work.

- 2.7 FASTENERS:
 - A. General: Provide fasteners of size and type indicated that comply with requirements specified in this article for material and manufacture and as shown on drawings.
 - B. Nails, Brads, and Staples: ASTM F 1667.
 - C. Power-Driven Fasteners: NES NER-272.
 - D. Wood Screws: ASME B18.6.1.
 - E. Lag Bolts: ASME B18.2.1.
 - F. Bolts: Steel bolts complying with ASTM A 307, Grade A: with ASTM A 563 hex nuts and, where indicated, flat washers.

2.8 MISCELLANEOUS MATERIALS:

- A. Solid Borate Rods $-\frac{3}{4}$ -inch diameter x 3-inch long Bor8 Rods.
- B. Where general carpentry work is exposed to weather, in ground contact, or in areas of high relative humidity, provide fasteners and chorages with a hot-dip zinc coating (ASMT A153).

PART 3 - EXECUTION

- 3.1 INSTALLATION, GENERAL:
 - A. Set rough carpentry to required levels and lines, with members plumb, true to line, cut, and fitted. Fit rough carpentry to other construction; scribe and cope as needed for accurate fit. Locate nailers, blocking, and similar supports to comply with requirements for attaching other construction.
 - B. Framing Standard: Comply with AF&PA's WCD 1, "Details for Conventional Wood Frame Construction," unless otherwise indicated.
 - C. Framing with Engineered Wood Products: Install engineered wood products to comply with manufacturer's written instructions.
 - D. Metal Framing Anchors: Install metal framing anchors to comply with manufacturer's written instructions. Install fasteners through each fastener hole.

- E. Do not splice structural members between supports unless otherwise indicated.
- F. Sort and select lumber so that natural characteristics will not interfere with installation or with fastening other materials to lumber. Do not use materials with defects that interfere with function of member or pieces that are too small to use with minimum number of joints or optimum joint arrangement.
- G. Securely attach rough carpentry work to substrate by anchoring and fastening as indicated, complying with the following:
 - 1. NES NER-272 for power-driven fasteners.
 - 2. Table 2304.9.1, "Fastening Schedule," in ICC's International Building Code.
 - 3. Table R602.3 (1), "Fastener Schedule for Structural Members."
- H. Use steel common nails unless otherwise indicated. Select fasteners of size that will not fully penetrate members where opposite side will be exposed to view or will receive finish materials. Make tight connections between members. Install fasteners without splitting wood. Drive nails snug but do not countersink nail heads unless otherwise indicated.

3.2 WOOD BLOCKING, CANT, AND NAILER INSTALLATION:

- A. Install where indicated and where required for attaching other work. Form to shapes indicated and cut as required for true line and level of attached work. Coordinate locations with other work involved.
- B. Attach items to substrates to support applied loading. Recess bolts and nuts flush with surfaces unless otherwise indicated.

3.3 TIMBER FRAMING INSTALLATION:

- A. General: Erect heavy timber framing true and plumb. Provide temporary bracing to maintain lines and levels until permanent supporting members are in place.
 - 1. Install horizontal and sloping members with crown edge up, and provide not less than 4 inches of bearing on supports. Provide continuous members unless otherwise indicated; tie together over supports with metal strap ties if not continuous.

- 2. Handle and temporarily support heavy timber framing to prevent surface damage, compression, and other effects that might interfere with indicated finish.
- B. Where beams or girders are framed into pockets of exterior masonry walls, provide 1/2-inch air space at sides and ends of wood members. Install two borate rods, one on each side, in area embedded into exterior masonry.
- C. Predrill for fasteners using timber connectors as templates.
- D. Treat ends of timber beams and posts exposed to weather by inserting boron rods.
- 3.4 SOLID-SAWN WOOD DECKING INSTALLATION:
 - A. Install solid-sawn wood decking to comply with AITC 112
 - 1. Locate end joints for combination simple and two-span continuous layup.
 - 2. Nail each course of wood roof decking at each support with one nail slant nailed above the tongue and one nail straight nailed through the face. Use 30d nails.
 - 3. Slant-nail each course of wood roof decking to the tongue of the adjacent course at 24 inches o.c. and within 12 inches of the end of each unit. Stagger nailing 15 inches in adjacent courses. Use 8d nails.
 - 4. Glue adjoining decking courses together by applying a 3/8-inch bead of adhesive to the top of tongues, according to research/evaluation report.
 - B. Apply joint sealant to seal roof decking at exterior walls at the following locations:
 - 1. Between decking and supports located at exterior walls.
 - 2. Between decking and exterior walls that butt against underside of roof decking.
 - 3. Between tongues and grooves of roof decking over exterior walls and supports at exterior walls.

3.5 PLYWOOD SHEATHING INSTALLATION:

- A. Do not use materials with defects that impair quality of sheathing or pieces that are too small to use with minimum number of joints or optimum joint arrangement. Arrange joints so that pieces do not span between fewer than three support members.
- B. Cut panels at penetrations, edges, and other obstructions of work; fit tightly against abutting construction unless otherwise indicated.
- C. Securely attach to substrate by fastening as indicated, complying with the following:
 - 1. NES NER-272 for power-driven fasteners.
 - 2. Table 2304.9.1, "Fastening Schedule," in ICC's "International Building Code."
 - 3. Table R602.3(1), "Fastener Schedule for Structural Members."
- D. Use common wire nails unless otherwise indicated. Select fasteners of size that will not fully penetrate members where opposite side will be exposed to view or will receive finish materials. Make tight connections. Install fasteners without splitting wood.
- E. Coordinate roof sheathing installation with flashing and joint-sealant installation so these materials are installed in sequence and manner that prevent exterior moisture from passing through completed assembly.
- F. Coordinate sheathing installation with installation of materials installed over sheathing so sheathing is not exposed to precipitation or left exposed at end of the workday when rain is forecast.
- G. Comply with applicable recommendations in APA Form No. E30, "Engineered Wood Construction Guide," for types of structural-use panels and applications indicated.
- H. Fastening Methods: Nail to wood framing; space panels 1/8 inch apart at edges and ends.

3.6 **PROTECTION**:

A. Protect wood that has been treated with inorganic boron (SBX) from weather. If, despite protection, inorganic boron-treated wood becomes wet, apply EPA-registered borate treatment. Apply borate solution by spraying to comply with EPA-registered label.

- B. Protect rough carpentry from weather. If, despite protection, rough carpentry becomes wet, apply EPA-registered borate treatment. Apply borate solution by spraying to comply with EPA-registered label.
- C. Provide water-resistive barrier over roof decking as the Work progresses to protect roof decking until roofing is applied.

END OF SECTION 061100

DIVISION 7 – THERMAL AND MOISTURE PROTECTION
DIVISION 31 – EARTHWORK

SECTION 312100 - COMPACTED STRUCTURAL FILL WITHIN BUILDINGS

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

 Drawings and general provisions of Contract, including General Conditions and Division 1 Specification sections, apply to work specified in this section.

1.2 DESCRIPTION OF WORK

- A. The work covered by this specification consists of furnishing all plant, labor, equipment and materials and performing all operations in connection with excavation, preparation of subgrade, and providing, placing and compacting Structural Fill within the building.
- 1.3 QUALITY ASSURANCE
 - A. Monitoring of earthwork operations will be provided by the OWNER.
 - B. The CONTRACTOR shall not place a layer of fill until the OWNER has observed the underlying materials.

PART 2 – PRODUCTS

- 2.1 STRUCTURAL FILL
 - A. Structural fill shall be suitable gravel, sandy gravel, or gravelly sand, free of organic material, loam, trash, snow, ice, frozen soil and other objectionable material and shall be well-graded within the following limits:

	Percent Finer by
<u>Sieve Size</u>	Weight
4 inches	100
No. 4	20 – 80
No. 40	5 – 50
No. 200	0 - 10

Norwich Community Development Corporation Norwich, Connecticut Uncas Leap Granite Mill Stabilization Project COMPACTED STRUCTURAL FILL WITHIN BUILDINGS 312100 – Page 1

- B. Excavated material is not suitable for use as Structural Fill. The inorganic excavated materials may be used as common fill outside the building limits or may be disposed of in accordance with arrangements previously made with the OWNER. Organic soil and surplus excavated soil shall be legally disposed of.
- C. All material is subject to approval by the OWNER's representative.

PART 3 – EXECUTION

3.1 SUBGRADE PREPARATION

A. Remove all topsoil, man-placed fill, and other unsuitable materials from the area specified on the Construction Drawings. The existing man-placed fill may be left in place below the existing building slab. Upon completion of the excavation, the soil subgrade shall be compacted by at least six coverages by a 500-pound vibratory roller as approved by the OWNER. Where, in the opinion of the OWNER, compaction of the subgrade is not desirable, the above compaction requirements will be waived. The CONTRACTOR shall remove any unsuitable soils identified by the ENGINEER and replace them with compacted Structural Fill at no additional cost.

3.2 PLACEMENT OF COMPACTED STRUCTURAL FILL

- A. Structural Fill shall be placed in layers not to exceed ten inches in thickness as measured before compaction. Each layer shall be compacted by a minimum of four coverages with the equipment described below to at least 95 percent of maximum dry density as determined by ASTM Test D1557. Incidental compaction due to traffic by construction equipment will not be credited toward the required minimum four coverages.
- B. Compaction equipment in confined areas shall consist of hand-guided vibratory equipment or mechanical tampers as approved by the OWNER. Layer thickness prior to compaction in confined areas, shall not exceed four inches.
- C. All Structural Fill shall be placed and compacted "in-the-dry". The CONTRACTOR shall dewater excavated areas as required to perform the work and in such a manner as to preserve the undisturbed state of the existing soil subgrade.

Norwich Community Development Corporation Norwich, Connecticut Uncas Leap Granite Mill Stabilization Project COMPACTED STRUCTURAL FILL WITHIN BUILDINGS 312100 – Page 2

- D. The CONTRACTOR shall not place a layer of Compacted Structural Fill on snow, ice or soil that was permitted to freeze prior to compaction. Removal of these unsatisfactory materials will be required as directed by the OWNER.
- E. In freezing weather, a layer of Structural Fill shall not be left in an uncompacted state at the close of a day's operations. Prior to terminating operations for the day, the final layer of fill, after compaction, shall be rolled with a smooth-wheeled roller to eliminate ridges of soil left by tractors, trucks and compaction equipment.
- F. Compacted Structural Fill shall not be placed when ambient temperatures are below freezing.

END OF SECTION 312100

DRAWINGS

LIST OF DRAWINGS

Sheet No.	Title	
S.1	Ground Floor and Foundation Plans	
S.2	First Floor Framing Plans	
S.3	Second Floor Framing Plans	
S.4	Roof Framing Plans	
S.5	Sections and Details	
S.6	Sections and Details	
S.7	Sections and Details	
S.8	General Notes and Typical Details	







SECOND FLOOR FRAMING PLAN - $\underbrace{1}_{3/16"} = 1'-0"$





P:\+PROJECTS\GNCB Directories\GNCB Named Directories\Amy\LOCAL REVIT FILES\2015\15028 S15 Indian Leap - Central_GNCB032.rvt







Consulting Engineers, P.C.

130 ELM STREET POST OFFICE BOX 802 OLD SAYBROOK CONNECTICUT 06475 PHONE: 860 388 1224 FAX: 860 388 4613 GNCBENGINEERS.COM





UNCAS LEAP FALLS STABILIZATION NORWICH, CT

SECTIONS AND DETAILS

CONSTRUCTION DOCUMENTS

AJ/JFN	07-01-2015 15028 1/2" = 1'-0"	DRAWING NO.
	JJS/AJ AJ/JFN	

DATE: JOB NO.

SCALE:

DRN BY:

CHK BY:





P01 - COLUMN BASE (GRIDLINE 9)



P02 - FIRST FLOOR GIRDER (GRIDLINE 10 EAST)





P07 -FIRST FLOOR POST (GRIDLINE 2) WITH DETERIORATION AT BASE



P08 - DETERIORATED DOOR TIMBER HEADER ALONG EAST WALL



P13 - SECOND FLOOR FRAMING BETWEEN GRIDS 7 AND 8 (WEST)



P14 - SECOND FLOOR FRAMING LOOKING NORTH







P19 - FAILED TRUSS BEARING AT EAST WALL (GRIDLINE 7)



P25 - ROOF FRAMING LOOKING NORTH (GRIDLINE 3 WEST)



P20 - ROOF TRUSS FRAMING AT RIDGE (GRIDLINE 7)



<u>P26 - NORTH FACADE</u>





P03 - COLUMN TOP WITH SHOULDER AND GIRDERS (GRIDLINE 9)

P09 - UNDERSIDE OF SECOND FLOOR DECK (GRIDLINE 8)



P04 - DETERIORATED DECKING NEAR DOORWAY TO ADJACENT BUILDING



P05 - FIRST FLOOR LOOKING SOUTHWEST



P11 - SECOND FLOOR FRAMING BETWEEN GRIDS 7 AND 8 (EAST)

P15 - SECOND FLOOR FRAMING LOOKING SOUTHWEST

P21 - ROOF TRUSS FRAMING WEST (GRIDLINE 7)

P27 -EAST EAVE MISSING ORIGINAL OVERHANG



P16 - SECOND FLOOR FRAMING BETWEEN GRIDS 8 AND 9 (WEST)



P22 - EXISTING ROOF TRUSS REINFORCEMENT (GRIDLINE 4 WEST)



P28 - DETERIORATED WEST EAVE



P17 - SECOND FLOOR STAIRS LOOKING DOWN TO FIRST FLOOR



P23 - ROOF FRAMING AT EAST WALL (GRIDLINE 3)



P29 - DETERIORATED SOUTH RAKE





P06 - FIRST FLOOR LOOKING NORTH



P12 - SECOND FLOOR FRAMING BETWEEN GRIDS 8 AND 9 (EAST)



P18 - COLLAPSED ROOF AT SOUTH OF SITE

P24 - TRUSS FRAMING AT EAST WALL (GRIDLINE 1)



P30 - WEST BRICK/GRANITE MASONRY WALL OVERBUILT FOR ADJACENT BUILDING



Consulting Engineers, P.C.

130 ELM STREET POST OFFICE BOX 802 OLD SAYBROOK CONNECTICUT 06475 PHONE: 860 388 1224 FAX: 860 388 4613 GNCBENGINEERS.COM





UNCAS LEAP FALLS STABILIZATION NORWICH, CT

EXISTING CONDITION PHOTOGRAPHS

CONSTRUCTION DOCUMENTS

ATE:	07-01-2015	DRAWING NO
B NO.	15028	
CALE:	1 1/2" = 1'-0"	
RN BY:	AJ	
IK BY:	JFN	

S.8



GENERAL NOTES

- 2005 STATE OF CONNECTICUT STATE BUILDING CODE AND SUPPLEMENT . THE CONTRACTOR SHALL PROVIDE ALL NECESSARY SHORING AND BRACING TO MAINTAIN THE STABILITY, SAFETY, AND LATERAL LOAD RESISTANCE OF THE BUILDING AND ITS INDIVIDUAL COMPONENTS THROUGHOUT CONSTRUCTION.
- 3. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS AND NOTIFY THE STRUCTURAL ENGINEER OF ANY DISCREPANCIES PRIOR TO PERFORMING WORK.
- 4. DO NOT SCALE DRAWINGS TO OBTAIN INFORMATION.

BUILDING LOADS

ALLOWABLE LIVE LOADS FIRST FLOOR: SECOND FLOOR: ROOF:	74PSF 40PSF 30PSF (SNOW LOAD)
DESIGN SNOW LOADS GROUND SNOW LOAD: IMPORTANCE FACTOR: FLAT ROOF SNOW LOAD: SNOW EXPOSURE FACTOR: THERMAL FACTOR:	Pg = 30 ls = 1.0 Pf = 30PSF Ce = 1.0 Cr = 1.0
DESIGN WIND LOADS BASIC WIND SPEED (3 SEC GUST): WIND EXPOSURE CATEGORY: WIND IMPORTANCE FACTOR:	110 MPH B Iw= 1.00

FOUNDATIONS

1. FOR SLAB ON GRADE AREAS WITHIN BUILDING PERIMETER, REMOVE ALL SURFACE TOPSOIL, PAVEMENT, AND OTHER UNSUITABLE MATERIALS. EXISTING GRANULAR MATERIAL MAY BE LEFT IN PLACE PROVIDED IT IS RECOMPACTED WITH A500-POUND VIBRATORY ROLLER AS APPROVED BY THE OWNER. ANY REMAINING FILL REQUIRED TO UNDERSIDE OF SLAB SHALL BE COMPACTED STRUCTURAL FILL.

REINFORCED CONCRETE

- 1. ALL CONCRETE IS DESIGNED BY ULTIMATE STRENGTH METHODS PER ACI 318 AND SHALL BE NORMAL WEIGHT (UNLESS INDICATED AS LIGHT WEIGHT ONPLANS) AIR ENTRAINED WITH A 28 DAY COMPRESSIVE STRENGTH AS FOLLOWS:
- INTERIOR SLABS ON GRADE 3500 PSI 2. ALL REINFORCING BARS SHALL BE HIGH STRENGTH DEFORMED BARS ASTM
- A 615 GRADE 60 U.N.O. 3. REINFORCING BARS FOR WELDING TO STRUCTURAL STEEL SHALL BE ASTM A706 WELDABLE REINFORCING.
- 4. DETAIL ALL BARS IN ACCORDANCE WITH "ACI DETAILING MANUAL." SHOW ON THE PLACING DRAWINGS THE NUMBER AND LOCATION OF ALL BAR SUPPORTS AND ACCESSORIES NECESSARY TO SUPPORT REINFORCEMENT IN POSITIONS INDICATED
- 5. MINIMUM CONCRETE PROTECTION FOR REINFORCEMENT WHEN NOT OTHERWISE INDICATED SHALL BE:

CONCRETE POURED AGAINST EARTH:	3"	
CONCRETE POURED IN FORMS BUT EXPOSED TO EARTH OF WEATHER: BARS #5 AND SMALLER BARS LARGER THAN #5	1 - 1/2" 2"	
SLABS, WALLS NOT EXPOSED TO EARTH OR WEATHER:	3/4"	

- 6. NO SPLICES OF REINFORCEMENT SHALL BE MADE EXCEPT AS DETAILED OR APPROVED BY THE STRUCTURAL ENGINEER. REBAR DEVELOPMENT / SPLICE LENGTH SHALL BE AS SHOWN BELOW UNLESS OTHERWISE NOTED. VALUES SHOWN ARE IN INCHES. MAKE ALL BARS CONTINUOUS AROUND CORNERS.
- . ALL CONSTRUCTION JOINTS SHALL BE AS DETAILED OR AS APPROVED BY THE STRUCTURAL ENGINEER. 8. WIRE MESH REINFORCEMENT MUST LAP ONE FULL MESH AT SIDE AND END
- LAPS, AND SHALL BE WIRED TOGETHER. PROVIDE ADEQUATE SUPPORTS FOR MESH TO INSURE ITS LOCATION AS SHOWN ON DRAWINGS.

MASONRY

- ALL BRICK SHALL BE RESET WITH TYPE N MORTAR
- GRANITE TO BE RESET WITH WITH TYPE S MORTAR. 3. REPOINTING IS NOT WITHIN THE SCOPE OF THIS STABILIZATION PROJECT



INSTALL 1/2" CDX

PLAYWOOD AND FASTEN TO

I. THIS DETAIL DOES NOT APPLY TO OPENINGS INFILLED WITH MASONRY. MASONRY AT THESE WINDOWS TO REMAIN.

- THAN 24", PROVIDE 2X3 INFILL STUDS AT 16"oc CLIPPED TO 2X

- 1. CHIMNEY FLASHING TO BE COPPER WITH SOLDERED
- 2. PROVIDE 3" MIN OVERLAP BETWEEN BASE SHEETS AND
- 3. BASE AND CAP SHEETS TO BE 16oz THICKNESS

- 1. RIDGE AND EAVE/RAKE FLASHING TO BE ALUMINUM WITH
- 3. PROVIDE 3" OVERLAP BETWEEN RIDGE SHEETS. 4. PROVIDE T-STYLE DRIP EDGE AT EAVES AND RAKES

STRUCTURAL STEEL

CONNECTION MATERIALS:

1. ALL STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING UNLESS NOTED OTHERWISE ON THE DRAWINGS:

ALL OTHER ROLLED SECTIONS: ASTM A36 TUBULAR SECTIONS: ANCHOR RODS: MISC.. PLATES AND

ASTM A500, GRADE B ASTM F1554, GRADE 55 ASTM A36

2. STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE AISC SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS, ASD OR LRFD AND THE AISC CODE OF STANDARD PRACTICE. 3. PROVIDE ALL PLATES, CLIP ANGLES, CLOSURE PIECES, STRAP ANCHORS, MISCELLANEOUS PIECES, AND HOLES REQUIRED TO COMPLETE THE STRUCTURE. 4. ALL LINTELS SHALL HAVE 6" MINIMUM BEARING EACH END UNLESS NOTED OTHERWISE.

5. ALL STEEL EXPOSED TO WEATHER, INCLUDING LINTELS IN EXTERIOR WALLS SHOULD BE HOT DIP GALVANIZED U.NO. 6. FIELD WELDING IS NOT PERMITTED.

POST-INSTALLED FASTENERS AND ANCHORS

1. ALL HOLES INTO MASONRY WALLS FOR PROPRIETARY ANCHORING SYSTEMS SHALL BE DRILLED AND CLEANED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S **RECOMMENDATIONS.**

2. ALL PROPRIETARY ANCHORING SYSTEMS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS AND USING ALL RECOMMENDED ACCESSORIES AND SUPPLEMENTAL COMPONENTS SUCH AS SCREEN TUBES, WASHERS, ETC.

3. ALL HOLES IN MASONRY SHALL BE DRILLED WITH ROTARY DRILLS. HAMMER DRILLS ARE NOT PERMITTED. 4. ALL EPOXY ADHESIVE SHALL BE HILTI RE-500, SIMPSON ET OR APPROVED EQUAL

U.N.O. 5. ALL ACRYLIC ADHESIVE SHALL BE HILTI HIT (ICE, HY150 ORO HY20), SIMPSON AT OR APPROVED EQUAL. U.N.O.

WOOD

3

1. ALL FRAMING LUMBER SHALL BE DRY (19% MAXIMUM MOISTURE CONTENT) DOUG FIR NO. 2 OR BETTER UNLESS SPECIFIED OTHERWISE BELOW:

MEMBERS USED FOR GROUND CONTACT, SILL PLATES, OR EXTERIOR USE SHALL BE PRESSURE TREATED SOUTH PINE

STUDS SHALL BE DOUG FIR STUD GRADE OR BETTER

FLOOR GIRDERS, ROOF TRUSS MEMBERS, AND NEW ROOF PURLINS SHALL BE DOUG FIR NO. 1 OR BETTER

SUBSTITUTIONS MUST BE REVIEWED AND APPROVED BY ENGINEER

2. WHERE FRAMING CLIPS OR JOISTS HANGERS ARE USED, NAILING SHALL BE AS PER MANUFACTURER'S RECOMMENDATIONS. METAL CONNECTOR HARDWARE SHOWN ON PLANS AND DETAILS ARE SIMPSON STRONG-TIE CONNECTORS AND ARE SELECTED FOR LOAD REQUIREMENTS. SUBSTITUTION IS PERMITTED IF LOAD CAPACITIES OF ALTERNATE ARE OF EQUAL OR GREATER CAPACITY THAN COMPARABLE SIMPSON CONNECTOR. FASTENING SHALL BE PER MANUFACTURER'S REQUIREMENTS. 4. TIMBER CONSOLIDATION TO BE DONE USING CONSERV EPOXIES. 5. BORATE RODS TO BE SOLID 3/4" DIAMETER X 3" LONG BOR8 RODS (PREVIOUSLY

WOOD DECKING

IMPEL)

1. WOOD DECK SHALL BE TONGUE AND GROOVED LAMINATED OF DOUGLAS FIR/LARCH IN DECORATIVE GRADE.

E = 1.8x106/ PSI Fb = 2600 PSI

DECKING TO BE INSTALLED IN RANDOM LENGTH CONTINUOUS LAY-UP. 3. DECKING SHALL BE FACE NAILED TO SUPPORTING BEAMS WITH 20d OR 30d COMMON OR RING SHANK NAILS. NAIL ADJACENT COURSES OF DECK WITH 8d NAILS AT 30" O.C. OFFSET ALTERNATE COURSES BY 15". SLANT NAIL WITHIN 12" OF EACH END OF JOINT 4. PROVIDE 2 NAILS AT EACH END OF DECKING AT EACH SUPPORT BEAM.

ROOFING

1. ROOFING FOR MILL TO CONSIST OF GAF THREE-TAB ARCHITECTURAL ASPHALT SHINGLES WITH ALUMINUM FLASHING. 2. FLAT-ROOFED CHIMNEY TO HAVE ASPHALTIC ROLLED ROOFING WITH NAILED AND ASPHALTED SEAMS. 3. OWNER TO REVIEW FOR COLOR.





Consulting Engineers, P.C.

130 ELM STREET POST OFFICE BOX 802 **OLD SAYBROOK** CONNECTICUT 06475 PHONE: 860 388 1224 FAX: 860 388 4613 **GNCBENGINEERS.COM**



UNCAS LEAP FALLS **STABILIZATION** NORWICH, CT

NT-2015OR CONSTRUCTION

GENERAL NOTES AND TYPICAL DETAILS

CONSTRUCTION DOCUMENTS

DRAWING NO.	07-01-2015
	15028
	As indicated
	JJS/AJ
	AJ/JFN
-	

DATE:

JOB NO.

SCALE: DRN BY: CHK BY: