



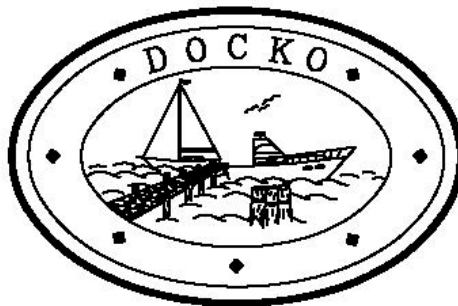
## Town of Stonington

**North Dock Rehabilitation  
Stonington Town Dock  
Stonington Harbor  
Stonington, CT**

### **Project Manual**

May 7, 2025

Prepared By:



## Docko

*A SOUND ENGINEERING ASSOCIATES COMPANY*

PO Box 421, MYSTIC, CT 06355

(860) 572-8939

[docko@soundengineeringassociates.com](mailto:docko@soundengineeringassociates.com)

**Docko Project No. D-24-02-3325**

**DIVISION 0**  
**CONTRACT REQUIREMENTS**

**SETCION 00005**  
**TABLE OF CONTENTS**

00005 TABLE OF CONTENTS

DIVISION 0 CONTRACT REQUIREMENTS

00005	TABLE OF CONTENTS
00020	TOWN OF STONINGTON LEGAL NOTICE TO BIDDERS
00030	TOWN OF STONINGTON INVITATION TO BID
	TOWN EXHIBITS A-G
00410	BID FORM (EJCDC FORM C410)
00430	BID BOND (EJCDC FORM C430)
00451	CONTRACTOR QUALIFICATION STATEMENT (EJCDC FORM C451)
00520	AGREEMENT BETWEEN OWNER AND CONTRACTOR (EJCDC FORM C520)
00610	PERFORMANCE BOND (EJCDC FORM C610)
00700	GENERAL CONDITIONS (EJCDC FORM C700)

DIVISION 1 GENERAL REQUIREMENTS

01010	SUMMARY OF THE WORK
01045	CUTTING AND PATCHING
01050	FIELD ENGINEERING
01200	PROJECT MEETINGS
01401	SPECIAL INSPECTIONS
01410	LABORATORY TESTING SERVICES

DIVISION 2 SITE CONSTRUCTION

02060	ENVIRONMENTAL PROTECTION
02062	CONSTRUCTION BARRICADES
02070	DEMOLITION AND REMOVALS
02220	EXCAVATING, BACKFILLING, AND COMPACTING
02361	TIMBER PILES
02370	EROSION AND SEDIMENT CONTROLS
02458	STEEL PILES
02511	BITUMINOUS CONCRETE PAVEMENT

DIVISION 3 CONCRETE

03300	CAST IN PLACE CONCRETE
-------	------------------------

DIVISION 5 METALS

05500	STRUCTURAL STEEL
05520	METAL FABRICATIONS

DIVISION 6      WOOD AND PLASTIC

06125      TIMBER DECKING  
06130      HEAVY TIMBER FRAMING

DIVISION 9      FINISHES

09905      PROTECTIVE COATING

ATTACHMENTS

A      CONTRACT DRAWING SET  
B      REGULATORY APPROVALS  
C      STATEMENT OF SPECIAL INSPECTIONS

**END OF SECTION**

**SECTION 00020**

**TOWN OF STONINGTON LEGAL NOTICE TO BIDDERS**

LEGAL NOTICE TO BID

TOWN OF STONINGTON  
STONINGTON TOWN DOCK  
NORTH DOCK REHABILITATION

ITB: 2025-004ston

Sealed bids for the Stonington Town Dock Rehabilitation project will be received at the Finance Department, Stonington Town Hall, 3<sup>rd</sup> Floor, 152 Elm Street, Stonington, Connecticut 06378 until **Thursday, May 29, 2:00PM** at which time they will be publicly opened and read aloud. Bids submitted after this time will not be accepted. The Project is located at the Stonington Town Dock, at the foot of High St., Stonington, CT. Each bidder must submit a sealed envelope, the outside of which must be clearly marked "**ITB#2025-004ston North Dock Rehabilitation**", and include the bidder's company name and address.

The full Invitation to Bid, and bidding documents, may be obtained on the Town's website, or on the CT DAS contracting portal at the following locations:

Town of Stonington	<a href="https://www.stonington-ct.gov/bids-rfps">https://www.stonington-ct.gov/bids-rfps</a>
State of Connecticut DAS	<a href="https://portal.ct.gov/das">https://portal.ct.gov/das</a>

Bid Documents are available digitally only. Neither the Owner nor Engineer will be responsible for full or partial sets of Bid Documents obtained from any other source.

Any addenda to the ITB will be posted to the Town's website and/or the CT DAS contracting portal. All firms are responsible for checking for new addenda.

A completed Bid Form and attachments listed therein must be submitted with the Bid. Bid security shall be furnished in accordance with the Instructions to Bidders. Bid Surety for 5% of the bid amount is required. The Bid Security shall be a proposal guaranty bond made in favor of the Town executed by a surety company authorized to do business in the State of Connecticut. Bid Security shall be made payable to Town of Stonington, Connecticut. Bids submitted without Bid Security may not be considered. No Bid may be withdrawn for 60 days after receipt of Bids unless released by the Owner. The successful bidder will be required to furnish Performance and Labor and Material Payment Bonds equal to 100% of the Contract amount.

A pre-bid conference or walk-through will be held Wednesday May 14, 2025, at 10:am, at the Town Dock at 1 High Street, Stonington, CT.

Funding for this project is being provided by a HUD federal grant made possible through the Consolidated Appropriations Act of 2023, and is being administered by the United States Small Business Administration (herein SBA). As a result of the source of funding, the selected contractor must have an active registration with the federal "System of Award Management ("SAM"). The Town will review all proposals for registration in SAM, to ensure contractors/suppliers/vendors are not debarred or suspended from receiving proceeds from federal grants. The Bidder whose bid is selected must comply with all the required elements of the grant program from which funding is derived.

The successful Bidder is required to comply with all provisions of the Civil Rights Act of 1964, the Equal Opportunity Act of 1972, Executive Orders #3, No. 17, 11246, 11375 and 11478. Contractors shall comply with State Statutes concerning Employment and Labor Practices, if applicable, and Section 31-53 of the Connecticut Statutes, as amended (Prevailing Wages). The Town of

Stonington and its Agencies and Commissions is an Affirmative Action/Equal Opportunity employer. Respondents must ensure that employees and applicants for employment are not discriminated against because of their race, color, religious creed, age, marital status, national origin, ancestry, sex, gender identity or expression, genetic information, veteran status intellectual disability, mental disability or physical disability, including, but not limited to, blindness, unless it is shown by such Respondent that such disability prevents performance of the work involved. The Town of Stonington complies with all Federal, State, and Local laws governing nondiscrimination in employment in every location in the Town has facilities. This policy applies to all terms and conditions of employment, including recruiting, hiring, placement, promotion, termination, layoff, recall, transfer, leaves of absence, compensation and training. Respondents to this ITB agree and warrant that in the performance of the work contemplated under this ITB they will not discriminate or permit discrimination against any person or group of persons. Respondents agree to provide the State of Connecticut Commission on Human Rights and Opportunities with such information requested by the Commission concerning employment practices and procedures.

The Town of Stonington reserves the right to amend or terminate this Invitation to Bid, to reject any or all bidders, to waive any technical or legal deficiencies, to request additional information, to waive any informalities or non-material deficiencies in a response, to determine qualifications exclusively and finally in its sole discretion, to select any firm based on any combination of factors, and the Town's best interests, to negotiate with any firm submitting a bid for different or additional terms, and to take any and all other action that, in the Town's sole judgment, will be in its best interests.

The Town of Stonington is an:

AFFIRMATIVE ACTION/EQUAL OPPORTUNITY EMPLOYER

MBE/WBE AND SBE's are encouraged to bid



**SECTION 00030**  
**TOWN OF STONINGTON INVITATION TO BID**

**INVITATION TO BID FOR  
STONINGTON TOWN DOCK  
NORTH DOCK REHABILITATION**

**ITB: #2025-004ston**

**TIMELINE OF THE INVITATION TO BID PROCESS-KEY DATES**

**ITB Issue Date: Friday May 9, 2025**

**Prebid Walkthrough: Wed May 14, 2025 10:00 a.m.**

**Final Date to Submit Questions: Wednesday May 21, 2025, 3:00pm**

**Final Posting of Responses to Questions: Friday May 23, 2025 4:00 p.m.**

**Proposal Closing Date/Time: Thursday May 29, 2025 @ 2:00pm**

**Proposal Closing Place:** Finance Department, 152 Elm Street, Stonington, CT 06378

**Proposal Opening Date/Time: Thursday May 29, 2025 @ 2:00pm**

**Proposal Opening Place:** Finance Department, 152 Elm Street, Stonington, CT 06378.

\*\*\*\*\*

**I. SCOPE OF SERVICES**

**OWNER:** Town of Stonington, Connecticut

**Consulting Engineer:** Docko, 14 Holmes Street, P.O. Box 421, Mystic, CT 06355,  
860-572-8939 (TEL), [office@docko.com](mailto:office@docko.com)

**General Description of the Work:** The project generally consists of the replacement of 245 feet of the North Pier at Stonington Town Dock.

**II. QUALIFICATION OF CONTRACTORS**

See qualification requirements statement under C-451.

**III. INQUIRIES**

All inquiries relative to the conditions and specifications listed herein as well as clarification of any information contained or referenced in this ITB must be submitted in writing to, Tim DeBartolomeo, via email at [tim@soundengineeringassociates.com](mailto:tim@soundengineeringassociates.com), no later than **3:00 PM on Wednesday May 21, 2025**, with copy to James Sullivan, Director of Finance, Town of Stonington, at [jsullivan@stonington-ct.gov](mailto:jsullivan@stonington-ct.gov).

The Town and/or Engineer will answer all relevant written questions by issuing one or more addenda, which shall become part of this INVITATION TO BID.

#### **IV. SUBMISSION OF PROPOSALS**

**General Requirements:** Respondents are asked to provide Proposals for the scope of work in accordance with all the terms and specification contained herein.

***Respondents shall submit one (1) original and two (2) hard copies and one (1) electronic copy (a compiled Adobe PDF file) of their submittals.***

Proposals shall contain the following at a minimum:

1. A list of projects (3 minimum) with similar scope shall be provided, along with contacts identified for references.
2. A schedule indicating the time to deliver all requested goods and services.
3. Exhibits:
  - A) Proposer's Statement of References Form
  - B) Required Disclosures
  - C) Affirmative Action Affidavit
  - D) COI with Insurance Limits specified in Exhibit D
  - E) Affidavit of non-collusion
  - F) Byrd Anti-Lobbying Amendment Certification
  - G) Prevailing Wage Determination to be supplied by addendum

#### **V. SELECTION PROCESS AND CRITERIA**

Proposals will be evaluated on their qualifications and value by the Director of Public Works or his/her appointees using the following criteria:

1. Bid proposal adherence to technical specifications.
2. Ability to deliver goods and services in a timely fashion.
3. Proposed project schedule.
4. Value of proposed fees.
5. Compliance/completion with/of submission requirements noted above in Section IV.

#### **VI. GENERAL TERMS AND CONDITIONS**

1. The Town reserves the right to reject any and all proposals, to waive any informality, to request interviews of proposers prior to award and to select and negotiate the proposed services in the best interest of the Town.
2. The Town reserves the right to accept all or part of any proposal, and to negotiate a contract for services and cost with the selected firm or team.

3. The Selected firm shall guarantee to provide the goods at the price of the proposal for a period of not less than sixty (60) days from the deadline for submission of proposals.
4. Unless otherwise stated, Payment Requests are to be submitted no more than once per month. Each Payment Request shall be signed by the Selected firm and shall constitute the Selected firm's representation that quantity of work has reached the level for which payment is requested, and that the Selected firm knows no reason why payment should not be made as requested. The Payment Request shall include an itemization of all services provided, including unit list price, net price, extensions and total amount due. The Town shall approve by signature the amount that, in the opinion of the Town, is properly owing to the Selected firm.
5. Unless otherwise stated, payment will be made within thirty (30) days of the completion of the work, in an acceptable fashion, to the Town and receipt of invoice, whichever is later.
6. Town is exempt from all sales and Federal excise taxes.
7. None of the services covered by the contract shall be assigned in full or in part, or sub-contracted without the prior approval of the Town.
8. Unless otherwise specified all costs listed are firm for the term of the contract.
9. Proposal shall also mean quotation, bid, offer, qualification/experience statement, and services. Proposers shall also mean vendors, offerors, bidders, or any person or firm responding to the Invitation to Bid.
10. All contracts entered into by the Town shall be governed by the Laws of the State of Connecticut. Any disputes shall be resolved within the venue of the State of Connecticut.

**AWARD TO OTHER THAN THE APPARENT LOW BIDDER:** The Town of Stonington reserves the right to award the work to a proposer other than the one which submitted the lowest price if it deems such action to be in the best interest of the Town of Stonington.

**AFFIRMATIVE ACTION/EQUAL OPPORTUNITY EMPLOYERS  
MBE/WBE AND SBE'S ARE ENCOURAGED TO BID**

## **VII. STANDARD INSTRUCTIONS TO PROPOSERS**

### **INTRODUCTION**

Interested parties should submit a proposal in accordance with the requirements and directions contained in this INVITATION TO BID. **Proposers are prohibited from contacting any Town employee, officer or official concerning this INVITATION TO BID, except as set forth in Section 3, below. A proposer's failure to comply with this requirement may result in disqualification.**

If there are any conflicts between the provisions of these Standard Instructions to Proposers and any other documents comprising this INVITATION TO BID, these Standard Instructions to Proposers shall prevail.

#### **1. RIGHT TO AMEND OR TERMINATE THE INVITATION TO BID OR CONTRACT**

The Town may, before or after proposal opening and in its sole discretion, clarify, modify, amend or terminate this INVITATION TO BID if the Town determines it is in the Town's best interest. Any such action shall be effected by a posting on the Town's website, <http://www.stonington-ct.gov/bids-rfps> and/or the [CT DAS Contracting Portal](#). **Each proposer is responsible for checking the Town's website and CT DAS Contracting Portal to determine if the Town has issued any addenda and, if so, to complete its proposal in accordance with the INVITATION TO BID as modified by the addenda.**

#### **2. PROPOSAL SUBMISSION INSTRUCTIONS**

Proposals must be received, by the date and time noted in the INVITATION TO BID prior to the date and time the proposals are scheduled to be opened publicly. Postmarks prior to the opening date and time do **NOT** satisfy this condition. The Town will not accept submissions by e-mail or fax. Proposers are solely responsible for ensuring timely delivery. The Town will **NOT** accept late proposals.

One (1) original and two (2) hard copies, along with a digital copy of all proposal documents must be submitted in sealed, opaque envelopes clearly labeled with the proposer's name, the proposer's address, the words **ITB#2025-004ston North Dock Rehabilitation**". The Town may decline to accept proposals submitted in unmarked

envelopes that the Town opens in its normal course of business. The Town may, but shall not be required to, return such proposal documents and inform the proposer that the proposal documents may be resubmitted in a sealed envelope properly marked as described above.

Proposal fee must be submitted on the Bid Form included in this INVITATION TO BID. All blank spaces for proposal prices must be completed in ink or be typewritten; proposal fee must be stated in both words and figures. The person signing the Proposal Form must initial any errors, alterations or corrections on that form. Ditto marks or words such as "SAME" shall not be used in the Proposal Form.

Proposals may be withdrawn personally or in writing provided that the Town receives the withdrawal prior to the date and time the proposals are scheduled to be opened. Proposals are considered valid, and may not be withdrawn, cancelled or modified, for sixty (60) calendar days after the opening date, to give the Town sufficient time to review the proposals, investigate the proposers' qualifications, secure any required municipal approvals, and execute a binding contract with the successful proposer.

An authorized person representing the legal entity of the proposer must sign the Proposal Form and all other forms included in this INVITATION TO BID.

### **3. QUESTIONS AND AMENDMENTS**

Questions concerning the process and procedures applicable to this INVITATION TO BID are to be submitted **only in writing via email** and directed **only to**:

Docko, Email: [office@docko.com](mailto:office@docko.com)

Proposers shall copy Mr. James. Sullivan, [jsullivan@stonington-ct.gov](mailto:jsullivan@stonington-ct.gov) as well.

**Proposers are prohibited from contacting any Town employee, officer or official concerning this INVITATION TO BID other than the designated official noted above. A proposer's failure to comply with this requirement may result in disqualification.**

The appropriate Town representative listed above must receive any questions from proposers no later than the date specified under the time line. That representative will confirm receipt of a proposer's questions by e-mail.

The Town will answer all relevant written questions by issuing one or more addenda, which shall be a part of this INVITATION TO BID and the resulting Contract, containing all questions received and answers provided.

The Town will post any addenda on Town's website, <http://www.stonington-ct.gov/bids-rfps> and/or on the CT DAS contracting portal. **Each proposer is responsible for checking the websites to determine if the Town has issued any addenda and, if so, to complete its proposal in accordance with the INVITATION TO BID as modified by the addenda.**

No oral statement of the Town, including oral statements by the Town representatives listed above, shall be effective to waive, change or otherwise modify any of the provisions of this INVITATION TO BID, and no proposer shall rely on any alleged oral statement.

**4. ADDITIONAL INFORMATION**

The Town reserves the right, either before or after the opening of proposals, to ask any proposer to clarify its proposal or to submit additional information that the Town in its sole discretion deems desirable.

**5. COSTS FOR PREPARING PROPOSAL**

Each proposer's costs incurred in developing its proposal are its sole responsibility, and the Town shall have no liability for such costs.

**6. OWNERSHIP OF PROPOSALS**

All proposals submitted become the Town's property and will not be returned to proposers.

**7. FREEDOM OF INFORMATION ACT**

All information submitted in a proposal or in response to a request for additional information is subject to disclosure under the Connecticut Freedom of Information Act as amended and judicially interpreted. A proposer's responses may contain financial, trade secret or other data that it claims should not be public (the "Confidential Information"). A proposer must identify specifically the pages and portions of its proposal or additional information that contain the claimed Confidential Information by visibly marking all such pages and portions. Provided that the proposer cooperates with the Town as described in this section, the Town shall, to the extent permitted by law, protect from unauthorized disclosure such Confidential Information.

If the Town receives a request for a proposer's Confidential Information, it will promptly notify the proposer in writing of such request and provide the proposer with a copy of any written disclosure request. The proposer may provide written consent to the disclosure or may object to the disclosure by notifying the Town in writing to withhold disclosure of the information, identifying in the notice the basis for its objection, including the statutory exemption(s) from disclosure. The proposer shall be responsible for defending any complaint brought in connection with the nondisclosure, including but not only appearing before the Freedom of Information Commission, and providing witnesses and documents as appropriate.

**8. REQUIRED DISCLOSURES**

Each proposer must, in its Required Disclosures Form, see **Exhibit B**, make the disclosures set forth in that form. A proposer's acceptability based on those disclosures lies solely in the Town's discretion.

## **9. REFERENCES**

Each proposer must complete and submit the Proposer's Statement of References Form included in this INVITATION TO BID, see **Exhibit A**.

## **10. LEGAL STATUS**

If a proposer is a corporation, limited liability company, or other business entity that is required to register with the Connecticut Secretary of the State's Office, it must have a current registration on file with that office. The Town may, in its sole discretion, request acceptable evidence of any proposer's legal status.

## **11. PERFORMANCE SECURITY**

The Contractor shall furnish a Performance Bond and a Labor and Material Payment Bond in amounts equal to at least one hundred percent (100%) of the contract price as security for the faithful performance of the Contract, and for the payment of all persons performing labor on the project under this contract and furnishing materials, equipment and all other incidentals in connection with this contract. The Surety on such a bond shall be satisfactory to the Owner and the cost of the same shall be borne by the Contractor.

The Performance Bond and Labor and Material Payment Bond must be delivered to the Owner within ten (10) calendar days from the date when the Notice of Award is delivered to the bidder. The Notice of Award will be accompanied by the necessary Agreement and bond forms. If the bond forms are not delivered to the Owner within the required time frame the Award and Agreement may be considered null and void at the sole discretion of the Owner.

Prior to the starting of any work, the bonds must be approved by the Owner and be in the Owner's hands. The bonds must be from a surety company licensed and approved to do business in the State of Connecticut and shall remain in effect through the guarantee period.

## **12. PROPOSAL (BID) SECURITY**

Each bid must be accompanied by a bid bond duly executed by the bidder as principal and having as surety thereon a surety company approved by the Owner, in the amount of five (5) percent of the bid. Such bid bonds will be returned to all but the three lowest bidders within five days after the opening of bids, and the remaining bid bonds will be returned promptly after the Owner and the accepted bidder have executed the contract; or if no award has been made within 60 days after the date of the opening of the bids, upon demand of the bidder at any time there- after, so long as he has not been notified of the acceptance of his bid. The bid bond of the successful bidder will be retained until the payment bond and performance bond have been executed and approved, after which it will be returned.

## **13. PRESUMPTION OF PROPOSER'S FULL KNOWLEDGE**

Each proposer is responsible for having read and understood each document in this INVITATION TO BID and any addenda issued by the Town. A proposer's failure to have reviewed all



information that is part of or applicable to this INVITATION TO BID, including but not only any addenda posted on the Town's website and/or CT DAS Contracting Portal, shall in no way relieve it from any aspect of its proposal or the obligations related thereto.

Each proposer is deemed to be familiar with and is required to comply with all federal, state and local laws, regulations, ordinances, codes and orders that in any manner relate to this INVITATION TO BID or the provision of goods or performance of the work described herein.

By submitting a proposal, each proposer represents that it has thoroughly examined and become familiar with the scope of work outlined/the goods described in this INVITATION TO BID, and it is capable of performing the work/delivering/installing the goods to achieve the Town's objectives. If applicable, each proposer shall visit the site, examine the areas and thoroughly familiarize itself with all conditions of the property before preparing its proposal.

#### **14. TAX EXEMPTIONS**

The Town is exempt from the payment of federal excise taxes and Connecticut sales and use taxes. Exemption from State sales tax per Conn. Gen. Stat. Chapter 219, § 12-412(1). Federal Tax-Exempt number will be provided to the selected firm prior to execution of contract.

#### **15. INSURANCE**

The successful proposer shall, at its own expense and cost, obtain and keep in force at least the insurance listed in the Insurance Requirements that are a part of this ITB, as delineated in **Exhibit D**. The Town reserves the right to request from the successful proposer a complete, certified copy of each required insurance policy. A sample Certificate of Insurance should be submitted with bid proposal.

#### **16. AWARD CRITERIA; PRELIMINARY SELECTION; CONTRACT EXECUTION**

All proposals will be publicly opened and read aloud as received on the date, at the time, and at the place identified in this INVITATION TO BID. Proposers may be present at the opening.

The Town reserves the right to correct, after proposer verification, any mistake in a proposal that is a clerical error, such as a price extension, decimal point error or FOB terms. If an error exists in an extension of prices, the unit price shall prevail. In the event of a discrepancy between the price quoted in words and in figures, the words shall control.

The Town reserves the rights to accept all or any part of a proposal, reject all proposals, and waive any informalities or non-material deficiencies in a proposal. The Town also reserves the right, if applicable, to award the purchase of individual items under this INVITATION TO BID to any combination of separate proposals or proposers.

The Town will select the lowest responsible proposer, meaning that, in addition to price, due consideration will be given to factors such as a proposer's experience, references, capabilities,

past performance, and other relevant criteria.

The Town will not award the proposal to any business that or person who is in arrears or in default to the Town with regard to any tax, debt, contract, security or any other obligation.

The Town will issue a Preliminary Notice of Award. The preliminary notice of award may be subject to further negotiations with the proposer. **The making of a preliminary award to a proposer does not provide the proposer with any rights and does not impose upon the Town any obligations. The Town is free to withdraw a preliminary award at any time and for any reason. A proposer has rights, and the Town has obligations, only if and when a Contract is executed by the Town and the proposer.**

## **17. NONRESIDENT CONTRACTORS**

If the successful proposer is a “nonresident contractor” as defined in Conn. Gen. Stat. § 12-430(7)(A) as amended, it shall comply fully with the provisions of § 12-430(7) and, prior to execution of the Contract, shall furnish the Town with proof that it is a “verified contractor” within the meaning of General Statutes Section 12-430(7) or that it has posted a bond with the Commissioner of Revenue Services in compliance with General Statutes Section 12-430(7). The successful proposer agrees to defend, indemnify, and hold harmless the Town, its employees, officers, officials, agents, volunteers and independent contractors, including any of the foregoing sued as individuals (collectively, the “Town Indemnified Parties”), from any and all taxes, interest and penalties that the State of Connecticut asserts are due with respect to the successful proposer’s activities under the Contract.

Connecticut General Statute §12-430(7) requires that:

When a non-resident contractor enters into a contract, they must post a 5% cash or guarantee bond for the total amount with the Commissioner of Revenue Services;

**or**

Any person dealing with a non-resident contractor without first obtaining a certificate of

compliance must deduct 5% from the amount payable to the non-resident contractor and submit it to the state.

If the requirements are not met, the general contractor will be liable for all Connecticut taxes imposed.

All questions shall be directed to the State of Connecticut Department of Revenue Services

Discovery Unit at 860-541-3280.

The successful proposer shall also be required to pay any and all attorney’s fees incurred by the Town Indemnified Parties in enforcing any of the successful proposer’s obligations under this section, whether or not a lawsuit or other proceeding is commenced, which obligations shall survive the termination or expiration of the Contract.

## **18. COMPLIANCE WITH LAWS**

The successful proposer shall comply with all applicable laws, regulations, ordinances, codes and orders of the United States, the State of Connecticut and the Town related to its proposal and the performance of the Contract.

### **Immigration Laws**

By submitting a proposal, each proposer confirms that it has complied, and during the term of the Contract will comply, with the Immigration Reform and Control Act (“IRCA”) and that each person it provides under the Contract will at all times be authorized for employment in the United States of America. Each proposer confirms that it has a properly completed Employment Eligibility Verification, Form I-9, for each person who will be assigned under the Contract and that it will require each subcontractor, if any, to confirm that it has a properly completed Form I-9 for each person who will be assigned under the Contract.

The successful proposer shall defend, indemnify, and hold harmless the Town, its employees, officers, officials, agents, volunteers and independent contractors, including any of the foregoing sued as individuals (collectively, the “Town Indemnified Parties”), against any and all proceedings, suits, actions, claims, damages, injuries, awards, judgments, losses or expenses, including fines, penalties, punitive damages, attorney’s fees and costs, brought or assessed against, or incurred by, the Town Indemnified Parties related to or arising from the obligations under IRCA imposed upon the successful proposer or its subcontractor. The successful proposer shall also be required to pay any and all attorney’s fees and costs incurred by the Town Indemnified Parties in enforcing any of the successful proposer’s obligations under this provision, whether or not a lawsuit or other proceeding is commenced. The successful proposer’s obligations under this section shall survive the termination or expiration of the Contract.

### **Non-Discrimination and Affirmative Action**

In the performance of the Contract, the successful proposer will not discriminate or permit discrimination in any manner prohibited by the laws of the United States or of the State of Connecticut against any person or group of persons on the grounds of race, color, religious creed, age (except minimum age), marital status or civil union status, national origin, ancestry, sex, sexual orientation, mental retardation, mental disability or physical disability, including but not limited to blindness, unless the successful proposer shows that such disability prevents performance of the work involved.

In the performance of the Contract, the successful proposer will take affirmative action to insure that applicants with job-related qualifications are employed and that employees are treated when employed without regard to their race, color, religious creed, age (except minimum age), marital status or civil union status, national origin, ancestry, sex, sexual orientation, mental retardation, mental disability or physical disability, including but not limited to blindness, unless the successful proposer shows that such disability prevents performance of the work involved.

Any violation of these provisions shall be considered a material violation of the Contract and shall be grounds for the Town’s cancellation, termination or suspension, in whole or in part, of

the Contract and may result in ineligibility for further Town contracts.

#### **Connecticut's Prevailing Wage Law Provision**

If applicable, the contractor must be in full compliance with CGS Section 31-53 and 31-53(a) which applies to each contract for the construction, remodeling, refinishing, refurbishing, rehabilitation, alteration, or repair of any public works project by the state or its agents, or by any political subdivision of the State, CGS Section 31-53 (g) provides monetary thresholds which must be met before the law is applicable. In accordance with CGS Section 31-53, projects are subject to the payment of minimum prevailing wages 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 \$1,000,000 or more and 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 \$100,000 or more. For qualifying projects, all contractors and subcontractors shall submit to the Finance Department certified weekly payrolls for all contracts meeting the stated monetary limits. The certified payrolls shall be submitted to the Finance Department with the contractor's monthly certificate for payment. The contractor should familiarize themselves with all aspects of the provisions under state law in order to ensure full compliance.

#### **Executive Orders**

The contract is subject to the provisions of Executive Order No. Three of Governor Thomas J. Meskill, promulgate June 16, 1971, concerning labor employment practices, Executive Order No. Seventeen of Governor Thomas J. Meskill, promulgate February 15, 1973, concerning the listing of employment opening and Executive Order No. Sixteen of Governor John G. Rowland promulgated August 4, 1999, concerning violence in the workplace, all of which are incorporated into and are made a part of the contract as if they had been fully set forth in it. The contract may also be subject to Executive Order No. 7C of Governor M. Jodi Rell, promulgated July 13, 2006, concerning contracting reforms and Executive Order No. 14 of Governor M. Jodi Rell, promulgate April 17, 2006, concerning procurement of cleaning products and services, in accordance with their respective terms and conditions.

#### **Occupational Safety and Health Administration Requirement**

According to CGS, Section 31-53b (a) each contract entered into on or after July 1, 2007, for the construction, remodeling, refinishing, refurbishing, rehabilitation, alteration or repair of any public building project by the state or any of its agents, or by a political subdivision of the state or any of its agents, where the total cost of all work to be performed by all contractors and subcontractors in connection with the contract is at least \$100,000 shall contain a provision requiring that, not later than thirty days after the date such contract is awarded, each contractor furnish proof to the Labor Commissioner that all employees performing manual labor on or in such public building, pursuant to such contract, have completed a course of at least ten hours in duration in construction safety and health approved by the federal Occupational Safety and Health Administration or, in the case of telecommunications employees, have completed at least ten hours of training in accordance with 29 CFR 1910.268. The aforesaid provisions shall be deemed to be incorporated into the Contract with the Town. The contractors should familiarize themselves with all aspects of state law and any applicable regulations pertaining to these requirements in order to ensure full compliance.

## **19. NON-COLLUSION AFFIDAVIT**

Each proposer shall submit a completed Proposer's Non-Collusion Affidavit Form that is part of this INVITATION TO BID. See **Exhibit E**.

## **20. CONTRACT TERMS**

The following provisions will be mandatory terms of the Town's Contract with the successful proposer. If a proposer is unwilling or unable to meet, or seeks to clarify or modify, any of these Contract Terms, the proposer must disclose that inability, unwillingness, clarification and/or modification in its Proposal Form.

### **a. DEFENSE, HOLD HARMLESS AND INDEMNIFICATION**

The successful proposer agrees, to the fullest extent permitted by law, to defend, indemnify, and hold harmless the Town, its employees, officers, officials, agents, volunteers and independent contractors, including any of the foregoing sued as individuals (collectively, the "Town Indemnified Parties"), from and against all proceedings, suits, actions, claims, damages, injuries, awards, judgments, losses or expenses, including attorney's fees, arising out of or relating, directly or indirectly, to the successful proposer's malfeasance, misconduct, negligence or failure to meet its obligations under the INVITATION TO BID or the Contract. The successful proposer's obligations under this section shall not be limited in any way by any limitation on the amount or type of the successful proposer's insurance.

Nothing in this section shall obligate the successful proposer to indemnify the Town or its Indemnified Parties against liability for damage arising out of bodily injury to persons or damage to property caused by or resulting from the negligence of the Town Indemnified Parties.

In any and all claims against the Town or its Indemnified Parties made or brought by any employee of the successful proposer, or anyone directly or indirectly employed or contracted with by the successful proposer, or anyone for whose acts or omissions the successful proposer is or may be liable, the successful proposer's obligations under this section shall not be limited by any limitation on the amount or type of damages, compensation or benefits payable by the successful proposer under workers' compensation acts, disability benefit acts, or other employee benefits acts.

The successful proposer shall also be required to pay any and all attorney's fees incurred by the Town or its Indemnified Parties in enforcing any of the successful proposer's obligations under this section. The successful proposer's obligations under this section shall survive the termination or expiration of the Contract.

As a municipal agency of the State of Connecticut, the Town will NOT defend, indemnify, or hold harmless the successful proposer.

b. ADVERTISING

The successful proposer shall not name the Town in its advertising, news releases, or promotional efforts without the Town's prior written approval.

If it chooses, the successful proposer may list the Town in a Statement of References or similar document required as part of its response to a public procurement. The Town's permission to the successful proposer to do so is not a statement about the quality of the successful proposer's work or the Town's endorsement of the successful proposer.

c. SUBCONTRACTING

Prior to entering into any subcontract agreement(s) for the work described in the Contract, the successful proposer shall provide the Town with written notice of the identity (full legal name, street address, mailing address (if different from street address), and telephone number) of each proposed subcontractor. The Town shall have the right to object to any proposed subcontractor by providing the successful proposer with written notice thereof within seven (7) business days of receipt of all required information about the proposed subcontractor. If the Town objects to a proposed subcontractor, the successful proposer shall not use that subcontractor for any portion of the work described in the Contract.

All permitted subcontracting shall be subject to the same terms and conditions as are applicable to the successful proposer. The successful proposer shall remain fully and solely liable and responsible to the Town for performance of the work described in the Contract. The successful proposer also agrees to promptly pay each of its subcontractors within thirty (30) days of receipt of payment from the Town or otherwise in accordance with law. The successful proposer shall assure compliance with all requirements of the Contract. The successful proposer shall also be fully and solely responsible to the Town for the acts and omissions of its subcontractors and of persons employed, whether directly or indirectly, by its subcontractor(s).

d. PREFERENCES

The successful proposer shall comply with the requirements of Conn. Gen. Stat. § 31-52(b), as amended. Specifically, the successful proposer agrees that in the employment of labor to perform the work under the Contract, preference shall be given to citizens of the United States who are, and have been continuously for at least three (3) months prior to the date of the Contract, residents of the labor market area (as established by the State of Connecticut Labor Commissioner) in which such work is to be done, and if no such qualified person is available, then to citizens who have continuously resided in Hartford County for at least three (3) months prior to the date hereof, and then to citizens of the State who have continuously resided in the State at least three (3) months prior to the date of the Contract.

e. LICENSES AND PERMITS

The successful proposer certifies that, throughout the Contract term, it shall have and provide proof of all approvals, permits and licenses required by the Town and/or any state or federal authority. The successful proposer shall immediately and in writing notify the Town of the loss or suspension of any such approval, permit or license.

f. CESSATION OF BUSINESS/BANKRUPTCY/RECEIVERSHIP

If the successful proposer ceases to exist, dissolves as a business entity, ceases to operate, files a petition or proceeding under any bankruptcy or insolvency laws or has such a petition or proceeding filed against it, the Town has the right to terminate the Contract effective immediately. In that event, the Town reserves the right, in its sole discretion as it deems appropriate and without prior notice to the successful proposer, to make arrangements with another person or business entity to provide the services described in the Contract and to exercise any or all of its rights at Law, in equity, and/or under the Contract.

g. AMENDMENTS

The Contract may not be altered or amended except by the written agreement of both parties.

h. ENTIRE AGREEMENT

It is expressly understood and agreed that the Contract contains the entire agreement between the parties, and that the parties are not, and shall not be, bound by any stipulations, representations, agreements or promises, oral or otherwise, not printed or inserted in the Contract or its attached exhibits.

i. VALIDITY

The invalidity of one or more of the phrases, sentences or clauses contained in the Contract shall not affect the remaining portions so long as the material purposes of the Contract can be determined and effectuated.

j. CONNECTICUT LAW AND COURTS

The Contract shall be governed by and construed in accordance with the internal laws (as opposed to the conflicts of law provisions) of the State of Connecticut, and the parties irrevocably submit in any suit, action or proceeding arising out of the Contract to the jurisdiction of the United States District Court for the District of Connecticut or of any court of the State of Connecticut, as applicable.

k. NON-EMPLOYMENT RELATIONSHIP

The Town and the successful proposer are independent parties. Nothing contained in the

Contract shall create, or be construed or deemed as creating, the relationships of principal and agent, partnership, joint venture, employer and employee, and/or any relationship other than that of independent parties contracting with each other solely for the purpose of carrying out the terms and conditions of the Contract. The successful proposer understands and agrees that it is not entitled to employee benefits, including but not limited to worker's compensation and employment insurance coverage, and disability. The successful proposer shall be solely responsible for any applicable taxes.

**21. LOCAL VENDOR PREFERENCE – N/A**

**22. QUALIFICATIONS OF BIDDER**

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

**END OF STANDARD INSTRUCTIONS TO PROPOSERS**



**TOWN OF STONINGTON,CONNECTICUT**

**INVITATION TO BID FOR  
STONINGTON TOWN DOCK  
NORTH DOCK REHABILITATION**

**ITB: #2025-004ston**

**PROPOSER’S STATEMENT OF REFERENCES FORM**

Provide at least three (3) references:

BUSINESS NAME \_\_\_\_\_  
ADDRESS \_\_\_\_\_  
CITY, STATE \_\_\_\_\_  
TELEPHONE: \_\_\_\_\_  
INDIVIDUALCONTACT NAME AND POSITION \_\_\_\_\_  
\_\_\_\_\_

BUSINESS NAME \_\_\_\_\_  
ADDRESS \_\_\_\_\_  
CITY, STATE \_\_\_\_\_  
TELEPHONE: \_\_\_\_\_  
INDIVIDUALCONTACT NAME AND POSITION \_\_\_\_\_  
\_\_\_\_\_

BUSINESS NAME \_\_\_\_\_  
ADDRESS \_\_\_\_\_  
CITY, STATE \_\_\_\_\_  
TELEPHONE: \_\_\_\_\_  
INDIVIDUALCONTACT NAME AND POSITION \_\_\_\_\_  
\_\_\_\_\_

**END OF STATEMENT OF REFERENCES FORM**

TOWN OF STONINGTON, CONNECTICUT

STONINGTON TOWN DOCK  
NORTH DOCK REHABILITATION

ITB: #2025-004ston

**REQUIRED DISCLOSURES**

1. Exceptions to/Clarifications of/Modifications of the INVITATION TO BID

\_\_\_\_\_ This proposal does not take exception to or seek to clarify or modify any requirement of the INVITATION TO BID, including but not only any of the Contract Terms set forth in the Standard Instructions to Proposers. **The proposer agrees to each and every requirement, term, provision and condition of this INVITATION TO BID.**

OR

\_\_\_\_\_ This proposal takes exception(s) to and/or seeks to clarify or modify certain of the INVITATION TO BID requirements, including but not only the following Contract Terms set forth in the Standard Instructions to Proposers. **Attached is a sheet fully describing each such exception.**

2. State Debarment List

Is the proposer on the State of Connecticut's Debarment List?

\_\_\_\_\_ Yes  
\_\_\_\_\_ No

Department of Consumer Protection License No. \_\_\_\_\_  
Connecticut Secretary of the State ID No. \_\_\_\_\_

3. Occupational Safety and Health Law Violations

Has the proposer or any firm, corporation, partnership or association in which it has an interest (1) been cited for three (3) or more willful or serious violations of any occupational safety and health act or of any standard, order or regulation promulgated pursuant to such act, during the three-year period preceding the proposal (provided such violations were cited in accordance with the provisions of any state occupational safety and health act or the Occupational Safety and Health Act of 1970, and not abated within the time fixed by the citation and such citation has not been set aside following appeal to the appropriate agency or court having jurisdiction) or (2) received one or more criminal convictions related to the injury or death of any employee in the three-year period preceding the proposal?

\_\_\_\_\_ Yes  
\_\_\_\_\_ No

If "yes," attach a sheet fully describing each such matter.

4. Arbitration/Litigation

Has either the proposer or any of its principals (current or former, regardless of place of employment) been involved for the most recent ten (10) years in any pending or resolved arbitration or litigation? Has either the proposer or any of its principals (current or former, regardless of place of employment) been party to a lawsuit or claim against the Town of Stonington, in the most recent ten (10) years? If yes to either, please explain.

\_\_\_\_\_ Yes  
\_\_\_\_\_ No

If “yes,” attach a sheet fully describing each such matter.

5. Criminal Proceedings

Has the proposer or any of its principals (current or former, regardless of place of employment) ever been the subject of any criminal proceedings?

\_\_\_\_\_ Yes  
\_\_\_\_\_ No

If “yes,” attach a sheet fully describing each such matter.

6. Ethics and Offenses in Public Projects or Contracts

Has either the proposer or any of its principals (current or former, regardless of place of employment) ever been found to have violated any state or local ethics law, regulation, ordinance, code, policy or standard, or to have committed any other offense arising out of the submission of proposals or bids or the performance of work on public works projects or contracts?

\_\_\_\_\_ Yes  
\_\_\_\_\_ No

If “yes,” attach a sheet fully describing each such matter.

7. Federal Debarment List

Is the proposer on the Federal Government’s Debarment List?

\_\_\_\_\_ Yes  
\_\_\_\_\_ No  
\_\_\_\_\_ Federal Duns #

8. MBE / WBE / SBE

Is the proposer a MBE? \_\_\_\_\_ Yes \_\_\_\_\_ No  
Is the proposer a WBE? \_\_\_\_\_ Yes \_\_\_\_\_ No  
Is the proposer a SBE? \_\_\_\_\_ Yes \_\_\_\_\_ No

**END OF REQUIRED DISCLOSURES FORM**

TOWN OF STONINGTON, CONNECTICUT

INVITATION TO BID FOR  
STONINGTON TOWN DOCK  
NORTH DOCK REHABILITATION

ITB: #2025-004ston

**AFFIRMATIVE ACTION/EEO AFFIDAVIT**

Concerning Equal Employment Opportunities and/or Affirmative  
Action Policy I/we, the respondent, certify to the TOWN OF  
STONINGTON that:

1. I/we are in compliance with the equal opportunity clause as set forth  
in Connecticut state law (Executive Order No. Three,  
<http://www.cslib.org/exeorder3.htm>).
2. I/we do not maintain segregated facilities.
3. I/we have filed all required employer's information reports.
4. I/we have developed and maintain written affirmative action  
programs.
5. I/we list job openings with federal and state employment services.
6. I/we attempt to employ and advance in employment qualified  
handicapped individuals.
7. I/we are in compliance with the Americans with Disabilities Act.
8. I/we (check one)  
\_\_\_\_\_ have an Affirmative Action Program, or  
\_\_\_\_\_ employ 10 people or fewer

Legal Name of Bidder:

\_\_\_\_\_

Business Name:

\_\_\_\_\_

Business Address:

\_\_\_\_\_

Signature and Title of Person:

\_\_\_\_\_

Subscribed and sworn to me

\_\_\_\_\_

This \_\_\_\_ day of \_\_\_\_\_, 20\_\_

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

My Commission Expires \_\_\_\_\_  
date

**END OF AFFIDAVIT FORM**

**TOWN OF STONINGTON, CONNECTICUT**

**INSURANCE REQUIREMENTS**

Contractor shall purchase and maintain without interruption from the date of commencement of the Services until the date of final payment for the last Project to be completed and for the additional periods specified herein, the following insurance and all insurance that may be required under any Applicable Laws, written by insurance companies with a rating of at least an "A-VIII" in the latest addition of A.M. Best. If Contractor fails to obtain and keep in force the insurance required hereunder, Owner may obtain and maintain the required insurance in the name of Contractor and the cost thereof shall be payable by Contractor to Owner on demand. Failure to maintain the insurance coverage required or failure to comply fully with any of the insurance provisions as may be necessary to carry out the terms and provisions of the Agreement shall be deemed to be a material breach of the Agreement. Insurance requirements are independent of, and in addition to, Contractor's liability under the Agreement. The limits and coverages set forth in this Exhibit are the minimum requirements under the Agreement. Except for Professional Liability and Workers Compensation insurance which cannot have additional insureds, the inclusion of these minimum requirements shall not be interpreted to restrict the rights of the Additional Insureds to the stated minimum coverage amounts in the event the Contractor maintains coverage at higher limits. Nothing in the Agreement shall be deemed to limit Contractor's liability under the Agreement to the limits of the insurance coverages required hereunder. Contractor shall be solely responsible for payment of all deductible or retention amounts pertaining to any insurance required hereby. If any policy is written on a "Claims Made" basis, the policy must be continually renewed for a minimum of two (2) years from the completion date of the contract. If the policy is replaced and/or the retroactive date is changed, then the expiring policy must be endorsed to extend the reporting period for claims for the policy in effect during the contract for two (2) years from the completion date. Capitalized terms in this Exhibit that are not specifically defined in this Exhibit shall have the meanings set forth in the Agreement to which this Exhibit is attached.

1. **Commercial General Liability** ("CGL") insurance on an "occurrence" basis for bodily injury and property damage that may arise out of or result from Contractor's operations and completed operations under the Agreement, whether such operations be by Contractor or by anyone directly or indirectly employed by the Contractor, or by anyone for whose acts the Contractor may be liable. Such insurance shall include, along with other coverages available to the Contractor or under the CGL policy, each of the following:
  - (a) At a minimum, the following limits and coverages:
    - (i) \$1,000,000 each occurrence or the full per occurrence limits of the policy, whichever is greater
    - (ii) \$1,000,000 personal and advertising injury or the full personal and advertising injury limits of the policy, whichever is greater

- (iii) \$5,000,000 general aggregate or the full general aggregate limits of the policy, whichever is greater
    - (iv) \$300,000 damage to rented premises
    - (v) \$10,000 Medical Expenses
  - (b) Coverage for ongoing operations, independent Contractors, and any persons or entities performing work on behalf of Contractor.
  - (c) Products and completed operations coverage, which coverage shall be maintained in effect for a period equivalent to the statute of repose for the state in which the Project is located.
  - (d) An appropriate endorsement acceptable to Owner stating that “limits apply per project.”
  - (e) Contractual liability coverage.
  - (f) Contain a severability or separation of insureds clause.
  - (g) The insurance maintained by Contractor shall be primary and noncontributory, and any other insurance or self-insurance maintained by Owner or the Additional Insureds is in excess and shall not contribute to Contractor’s insurance in all instances regardless of any like insurance that Owner or the Additional Insureds may have.
  - (h) No exclusion or limitation for residential construction.
  - (i) Waiver of Subrogation endorsement in favor of Owner.
2. **Commercial Automobile Liability** coverage to include owned, hired and non-owned automobile liability insurance covering all use of all automobiles, trucks and other motor vehicles utilized by Contractor, including each of the following:
- (a) A combined single limit for bodily injury and property damage of \$1,000,000 per accident.
  - (b) Coverage for upset, overturn and collision coverage related to pollution events (applying to the vehicle, trailer or other attachments to vehicle and extend to cargo/waste carried and to Contractors or others providing services to Contractor).
  - (c) Waiver of Subrogation endorsement in favor of Owner.
3. Follow-form **umbrella (excess) liability** insurance with a limit of \$10,000,000 each occurrence in excess of the general liability, employer’s liability, workers’ compensation liability, and business automobile liability coverages required of Contractor under this Exhibit. Such insurance shall contain a provision that it will not be more restrictive than the primary insurance. Aggregate limits of liability shall apply separately with respect to the Project.
4. **Workers’ Compensation insurance**, including employer’s liability, for all persons whom Contractor employs (or uses as contract labor if the Contractor is uninsured) in carrying out any Work. Such insurance shall be in strict compliance

with the requirements of the most current and applicable workers' compensation insurance laws in effect from time to time in the state(s) where the Services are performed, and shall include the following:

- (a) Coverage A (Workers' Compensation) - Statutory
  - (b) Coverage B (Employer's Liability)  
At a minimum, the following limits and coverages:
    - (i) \$500,000 for each accident, for bodily injury by accident
    - (ii) \$500,000 for each employee, for bodily injury by disease
    - (iii) \$500,000 for each disease policy limit
  - (c) Waiver of Subrogation endorsement in favor of Owner.
  - (d) Contain endorsements that provide:
    - (i) Voluntary Compensation
5. **Property insurance** providing coverage for property in which Contractor retains the risk of loss including their own equipment, (stationary or mobile), tools (including employee tools), supplies, materials, or any other property owned or leased by Contractor. If Contractor chooses to self-insure any of the property described under this Paragraph, it is agreed that Contractor shall hold Owner and its representatives, agents and employees harmless for any loss sustained by the Contractor of its equipment, tools, supplies, materials and other property of Contractor whether owned or leased.
6. **Additional Insureds:** Commercial General Liability, Umbrella Liability and Comprehensive Automobile Liability insurance policies will name the Owner, and its respective employees, agents and representatives as additional insureds. Certificates of Insurance showing such coverages and additional insureds, along with copies of appropriate additional insured endorsements will be filed with the Owner on or before the execution of the Agreement. At any time requested by the Owner, the Contractor will provide to the Owner a copy of any of the aforementioned policies, and any endorsements or amendments thereto.
7. **Contractor's pollution liability insurance:** Coverage of \$1,000,000
8. **Notice of Cancellation:** The Contractor shall provide written notification to the Owner of the cancellation or expiration of any insurance required by this Exhibit. The Contractor shall provide such written notice within five (5) business days of the date the Contractor is first aware of the cancellation or expiration or is first aware that the cancellation or expiration is threatened or otherwise may occur, whichever comes first. Each insurance policy will state that the insurance company agrees to investigate and defend the insured against all claims for damages to the extent that all alleged damages might be covered by insurance.
9. **Contractors and Contractors Insurance:** Contractor shall require that each Contractor and sub-contractor under contract with the Contractor comply with

the insurance requirements above, except that a Contractor or sub-contractor that provides no professional services for any Project shall not be required to provide Professional Services Liability Insurance. Before permitting any of its Contractors or sub-contractors to perform any Services, Contractor shall obtain a certificate of insurance from each such Contractor and sub-contractor evidencing that such Contractor or sub-contractor, as applicable, has obtained the required minimum insurance and has added those entities as additional insureds with respect to the Commercial General Liability, umbrella liability, and Commercial Automobile Liability insurance, and all other insurances as required herein. All policies of Contractors and sub-contractors shall include a waiver of any right of subrogation of the insurers thereunder against Contractor, the Owner and the other Additional Insureds.

### **INSURANCE REQUIREMENTS FOR SUBCONTRACTORS**

The Contractor shall ensure that all tiers of their subcontractors shall procure and maintain insurance in like form and amounts including the Additional Insured requirements, as set forth above. Copies of the certificates of insurance must be provided to the Town prior to the subcontractor entering the jobsite.

### **CERTIFICATES ON INSURANCE & POLICY ENDORSEMENTS**

Original, completed Certificates of Insurance must be presented to the Town prior to contract issuance, and must name the Town as an additional insured. The Contractor agrees to provide replacement/renewal certificates at least 60 days prior to the expiration of any policy. Should any of the above-described policies be cancelled before the expiration date, written notice must be given to the Town 30 days prior to cancellation. *A copy of the insurance endorsement naming the Town as an additional insured must also be provided to the Finance Director along with copies of the endorsements within the policy naming the Town as an additional insured.* Required limits are scheduled out below:

### **REQUIRED LIMITS**

		(Minimum Limits)
General Liability*	Each Occurrence	\$1,000,000
	General Aggregate	\$5,000,000
	Products/Completed Operations Aggregate	\$5,000,000
	Personal and ADV Injury	\$1,000,000



	Damage to Rented Premises	\$ 300,000
	Medical Expense (anyone person)	\$ 10,000
Auto Liability*	Combined Single Limit	
	Each Accident	\$1,000,000
	Aggregate	\$1,000,000
Umbrella*	Each Occurrence	\$10,000,000
Excess Liability)	Aggregate	\$10,000,000
Contractor's Pollution Liability Insurance	Each Occurrence / Aggregate	\$1,000,000
Workers' Compensation and Employers' Liability	WC Statutory	
	Limits EL Each	\$500,000
	EL Disease Each Employee	\$500,000
	EL Disease Policy Limit	\$500,000

## TOWN OF STONINGTON, CONNECTICUT

**INVITATION TO BID FOR  
STONINGTON TOWN DOCK  
NORTH DOCK REHABILITATION**

**ITB: #2025-004ston**

**PROPOSER'S NON-COLLUSION AFFIDAVIT FORM**

**PROPOSAL FOR:**

The undersigned proposer, having fully informed himself/herself/itself regarding the accuracy of the statements made herein, certifies that:

- (1) the proposal is genuine; it is not a collusive or sham proposal;
- (2) the proposer developed the proposal independently and submitted it without collusion with, and without any agreement, understanding, communication or planned common course of action with, any other person or entity designed to limit independent competition;
- (3) the proposer, its employees and agents have not communicated the contents of the proposal to any person not an employee or agent of the proposer and will not communicate the proposal to any such person prior to the official opening of the proposal; and
- (4) no elected or appointed official or other officer or employee of the Town of Stonington is directly or indirectly interested in the proposer's proposal, or in the supplies, materials, equipment, work or labor to which it relates, or in any of the profits thereof.

The undersigned proposer further certifies that this affidavit is executed for the purpose of inducing the Town of Stonington to consider its proposal and make an award in accordance therewith.

Legal Name of Proposer (signature)

\_\_\_\_\_  
Proposer's Representative, Duly Authorized

\_\_\_\_\_  
Name of Proposer's Authorized  
Representative

\_\_\_\_\_  
Title of Proposer's Authorized Representative

\_\_\_\_\_  
Date

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
Notary Public  
My Commission Expires:

**END OF NON-COLLUSION AFFIDAVIT FORM**

## TOWN OF STONINGTON, CONNECTICUT

STONINGTON TOWN DOCK  
NORTH DOCK REHABILITATION

ITB: #2025-004ston

**BYRD ANTI-LOBBYING AMENDMENT CERTIFICATION**

Contractors who apply or bid for a Federal award of \$100,000 or more shall file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, officer or employee of Congress, or an employee of a Member of Congress in connection with obtaining any Federal contract, grant, or any other award covered by 31 U.S.C. § 1352.

Each tier shall also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier, up to the non-federal recipient who in turn will forward the certification(s) to the awarding agency.

**APPENDIX A, 44 C.F.R. PART 18 – CERTIFICATION REGARDING LOBBYING – REQUIRED FOR CONTRACTS OVER \$100,000** *Certification for Contracts, Grants, Loans, and Cooperative Agreements*

The undersigned certifies, to the best of his or her knowledge and belief, that:

- ☐ No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- ☐ If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- ☐ The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The Contractor certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. Chap. 38, Administrative Remedies for False Claims and Statements, apply to this certification and disclosure, if any.

<b>Signature of Authorized Representative</b>	<b>Date</b>
<b>Printed Name and Title</b>	<b>Phone Number / Email Address</b>

**END OF ANTI-LOBBYING CERTIFICATION FORM**

**TOWN OF STONINGTON, CONNECTICUT**

**INVITATION TO BID FOR  
STONINGTON TOWN DOCK  
NORTH DOCK REHABILITATION**

**ITB: #2025-004ston**

**CONNECTICUT DEPARTMENT OF LABOR'S PREVAILING WAGE DETERMINATION**

To be provided by addendum.

**SECTION 00410**  
**BID FORM (EJCDC FORM C410)**

# **BID FORM FOR CONSTRUCTION CONTRACT**

The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

## **ARTICLE 1—OWNER AND BIDDER**

1.01 This Bid is submitted to:

Town of Stonington Department of Finance

James Sullivan, Director of Finance

152 Elm Street, 3<sup>rd</sup> floor

Stonington, Connecticut 06378

860-525-5070

1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

## **ARTICLE 2—ATTACHMENTS TO THIS BID**

2.01 The following documents are submitted with and made a condition of this Bid:

- A. Required Bid security;
- B. List of Proposed Subcontractors;
- C. List of Proposed Suppliers;
- D. Evidence of authority to do business in the state of the Project; or a written covenant to obtain such authority within the time for acceptance of Bids;
- E. Contractor's license number as evidence of Bidder's State Contractor's License or a covenant by Bidder to obtain said license within the time for acceptance of Bids;
- F. Required Bidder Qualification Statement – see C-451

## ARTICLE 3—BASIS OF BID—LUMP SUM BID AND UNIT PRICES

### 3.01 Lump Sum Bids

- A. Bidder will complete the Work in accordance with the Contract Documents for the following lump sum (stipulated) price(s), together with any Unit Prices indicated in Paragraph 3.02:

1. Lump Sum Price (Base Bid and Alternates)

Item No.	Base Bid	
1	General Conditions	\$
2	Mobilization / Demobilization	\$
3	Environmental Protections, Construction Barricades, & Erosion & Sediment Controls	\$
4	Demolition and Removals	\$
5	Excavating, Backfilling & Compacting	\$
6	Timber Piles	\$
7	Steel Piles	\$
8	Bituminous Concrete Pavement	\$
9	Cast-In-Place Concrete	\$
10	Structural Steel & Metal Fabrications	\$
11	Timber Decking & Heavy Timber Framing	\$
	Total Lump Sum Bid Price for Base Bid	\$
A	Alternate A <b>[Add]</b>	\$

### 3.02 Unit Price Bids

- A. Bidder will perform the following Work at the indicated unit prices if requested:

Item No.	Description	Unit	Bid Unit Price
UP-1	Timber Pile (40 feet long, furnished and installed)	EA	
UP-2	16-inch Dia Steel Pipe Pile (40 feet long, coated and filled with concrete, furnished & installed)	EA	
UP-3	HP-Pile (40 feet long, coated and installed)	EA	
UP-4	Double Tire Fenders (48" Dia, furnished with hardware & installed)	Per Pair	
UP-5	Cast-in-Place Concrete (supplied, placed and cured)	CY	
UP-6	Excavation Work (material removed from property)	CY	
UP-7	Crushed Stone (furnished & installed)	CY	
UP-8	Seawall Repair	SF	
UP-9	Dolphin (complete, furnished & installed)	EA	
UP-10	Ladder (fabricated, furnished & installed)	EA	
UP-11	Storm Bollard (complete, subbase, furnished & installed)	EA	
UP-12	Bituminous Pavement (complete, subbase, furnished & installed)	SF	
UP-13	Timber Decking (furnished and installed)	10 LF	
UP-14	Heavy Timber Framing (furnished and installed)	10 LF	
UP-15	Tie-Back Assembly (furnished and installed)	EA	

EJCDC® C-410, Bid Form for Construction Contract.

Copyright© 2018 National Society of Professional Engineers, American Council of Engineering Companies, and American Society of Civil Engineers. All rights reserved.

Modified to include RD edits from RUS Bulletin 1780-26 (5/24/2023).



B. Bidder acknowledges that:

1. each Bid Unit Price includes an amount considered by Bidder to be adequate to cover Contractor's overhead and profit for each separately identified item, and
2. estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all Unit Price Work will be based on actual quantities, determined as provided in the Contract Documents.

#### ARTICLE 4—TIME OF COMPLETION

4.01 Bidder agrees that the Work will be substantially complete and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before the dates or within the number of calendar days indicated in the Agreement.

4.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

#### ARTICLE 5—BIDDER'S ACKNOWLEDGEMENTS: ACCEPTANCE PERIOD, INSTRUCTIONS, AND RECEIPT OF ADDENDA

5.01 *Bid Acceptance Period*

- A. This Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

5.02 *Instructions to Bidders*

- A. Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security.

5.03 *Receipt of Addenda*

- A. Bidder hereby acknowledges receipt of the following Addenda: **[Add rows as needed. Bidder is to complete table.]**

Addendum Number	Addendum Date

#### ARTICLE 6—BIDDER'S REPRESENTATIONS AND CERTIFICATIONS

6.01 *Bidder's Representations*

- A. In submitting this Bid, Bidder represents the following:
1. Bidder has examined and carefully studied the Bidding Documents, including Addenda.
  2. Bidder has visited the Site, conducted a thorough visual examination of the Site and adjacent areas, and become familiar with the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
  3. Bidder is familiar with all Laws and Regulations that may affect cost, progress, and performance of the Work, **including all Domestic Preference requirements.**

4. Bidder has carefully studied the reports of explorations and tests of subsurface conditions at or adjacent to the Site and the drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, with respect to the Technical Data in such reports and drawings.
5. Bidder has carefully studied the reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, with respect to Technical Data in such reports and drawings.
6. 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 the Technical Data identified in the Supplementary Conditions or by definition, with respect to the effect of such information, observations, and Technical Data on (a) the cost, progress, and performance of the Work; (b) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, if selected as Contractor; and (c) Bidder's (Contractor's) safety precautions and programs.
7. Based on the information and observations referred to in the preceding paragraph, Bidder 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.
8. Bidder 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 Bidding Documents.
9. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and of discrepancies between Site conditions and the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
10. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
11. The submission of this Bid constitutes an incontrovertible representation by Bidder that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

6.02 *Bidder's Certifications*

A. The Bidder certifies the following:

1. This Bid is genuine and not made in the interest of or on 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.
2. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid.
3. Bidder has not solicited or induced any individual or entity to refrain from bidding.

4. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 8.02.A:
  - a. Corrupt practice means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process.
  - b. 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.
  - c. 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.
  - d. 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.

BIDDER hereby submits this Bid as set forth above:

Bidder:

\_\_\_\_\_  
*(typed or printed name of organization)*

By:

\_\_\_\_\_  
*(individual's signature)*

Name:

\_\_\_\_\_  
*(typed or printed)*

Title:

\_\_\_\_\_  
*(typed or printed)*

Date:

\_\_\_\_\_  
*(typed or printed)*

*If Bidder is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.*

Attest:

\_\_\_\_\_  
*(individual's signature)*

Name:

\_\_\_\_\_  
*(typed or printed)*

Title:

\_\_\_\_\_  
*(typed or printed)*

Date:

\_\_\_\_\_  
*(typed or printed)*

Address for giving notices:

\_\_\_\_\_  
\_\_\_\_\_

Bidder's Contact:

Name:

\_\_\_\_\_  
*(typed or printed)*

Title:

\_\_\_\_\_  
*(typed or printed)*

Phone:

Email:

Address:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Bidder's Contractor License No.: (if applicable)

\_\_\_\_\_

**SECTION 00430**  
**BID BOND (EJCDC FORM C430)**

## BID BOND (PENAL SUM FORM)

<b>Bidder</b> Name: Address <i>(principal place of business)</i> :	<b>Surety</b> Name: Address <i>(principal place of business)</i> :
<b>Owner</b> Name: <b>Town of Stonington</b> Address <i>(principal place of business)</i> : <b>152 Elm Street</b> <b>Stonington, CT, 06378</b>	<b>Bid</b> Project <i>(name and location)</i> : <b>North Pier Rehabilitation</b> <b>Stonington Town Dock</b> <b>Town of Stonington</b>  Bid Due Date: <b>[Enter date bid is due]</b>
<b>Bond</b> Penal Sum: Date of Bond:	
Surety and Bidder, intending to be legally bound hereby, subject to the terms set forth in this Bid Bond, do each cause this Bid Bond to be duly executed by an authorized officer, agent, or representative.	
Bidder	Surety
_____ <i>(Full formal name of Bidder)</i>	_____ <i>(Full formal name of Surety) (corporate seal)</i>
By: _____ <i>(Signature)</i>	By: _____ <i>(Signature) (Attach Power of Attorney)</i>
Name: _____ <i>(Printed or typed)</i>	Name: _____ <i>(Printed or typed)</i>
Title: _____	Title: _____
Attest: _____ <i>(Signature)</i>	Attest: _____ <i>(Signature)</i>
Name: _____ <i>(Printed or typed)</i>	Name: _____ <i>(Printed or typed)</i>
Title: _____	Title: _____
<i>Notes: (1) Note: Addresses are to be used for giving any required notice. (2) Provide execution by any additional parties, such as joint venturers, if necessary.</i>	

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 will be Owner's sole and exclusive remedy upon default of Bidder.
2. Default of Bidder occurs 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 will 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 does not in the aggregate exceed 120 days from the Bid due date without Surety's written consent.
6. No suit or action will 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 will be commenced only in a court of competent jurisdiction located in the state in which the Project is located.
8. Notices required hereunder must 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 Postal Service registered or certified mail, return receipt requested, postage pre-paid, and will 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 will 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 governs and the remainder of this Bond that is not in conflict therewith continues in full force and effect.
11. The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.

**SECTION 00520**  
**AGREEMENT BETWEEN OWNER AND CONTRACTOR**  
**(EJCDC FORM C520)**



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

This Agreement is by and between **Town of Stonington** ("Owner") and **[name of contracting entity]** ("Contractor").

Terms used in this Agreement have the meanings stated in the General Conditions and the Supplementary Conditions.

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:

North Pier Rehabilitation

## ARTICLE 2—THE PROJECT

2.01 The project, of which the work under the contract documents is a part, is generally described as follows:

North Pier Rehabilitation

## ARTICLE 3—ENGINEER

3.01 The Owner has retained **Docko** ("Engineer") to act as Owner's representative, assume all duties and responsibilities of Engineer, and have the rights and authority assigned to Engineer in the Contract.

3.02 The part of the Project that pertains to the Work has been designed by **Docko**.

## ARTICLE 4—CONTRACT TIMES

4.01 *Time is 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.

4.02 *Contract Times: Dates*

A. The Work will be substantially complete on or before **October 3, 2025**, and completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before **October 17, 2025**.

~~4.03 *Contract Times: Days*~~

~~A. The Work will be substantially complete within **[number]** 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 ~~[number]~~ days after the date when the Contract Times commence to run.

#### ~~4.04~~ *Milestones*

~~A. Parts of the Work must 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]~~

#### 4.05 *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 Contract Times, as duly modified. 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 **\$500** for each day that expires after the time (as duly adjusted pursuant to the Contract) specified 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 Times (as duly adjusted pursuant to the Contract) for completion and readiness for final payment, Contractor shall pay Owner **\$500** for each day that expires after such time until the Work is completed and ready for final payment.
- ~~3. *Milestones:* Contractor shall pay Owner \$[number] 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, or until the time specified for Substantial Completion is reached, at which time the rate indicated in Paragraph 4.05.A.1 will apply, rather than the Milestone rate.~~
4. Liquidated damages for failing to timely attain Milestones, Substantial Completion, and final completion are not additive, and will not be imposed concurrently.

#### 4.06 *Special Damages*

- A. 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.

- C. The special damages imposed in this paragraph are supplemental to any liquidated damages for delayed completion established in this Agreement.

## 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).

SAMPLE – DO NOT USE					
Unit Price Work					
Item 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.

## 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 the basis of Contractor's Applications for Payment on or about the **fourteen days after submittal of the Application for Payment** 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. **95** percent of the value of the Work completed (with the balance being retainage).
    - b. **95** percent of cost of materials and equipment not incorporated in the Work (with the balance being retainage).
- B. Upon Substantial Completion **of the entire construction to be provided under the construction Contract Documents**, Owner shall pay an amount sufficient to increase total payments to Contractor to **93%** percent of the Work completed, less such amounts set off by Owner pursuant to Paragraph 15.01.E of the General Conditions, and less **100%** 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.

### 6.03 *Final Payment*

- A. Upon final completion and acceptance of the Work, Owner shall pay the remainder of the Contract Price in accordance with Paragraph 15.06 of the General Conditions.

### 6.04 *Consent of Surety*

- A. Owner will not make final payment, or return or release retainage at Substantial Completion or any other time, unless Contractor submits written consent of the surety to such payment, return, or release.

### 6.05 *Interest*

- A. All amounts not paid when due will bear interest at the rate of [0%] percent per annum.

## ARTICLE 7—CONTRACT DOCUMENTS

### 7.01 *Contents*

- A. The Contract Documents consist of all of the following:
  - 1. This Agreement.
  - 2. Bonds:
    - a. Performance bond (together with power of attorney).
    - b. Payment bond (together with power of attorney).
  - 3. General Conditions.
  - 4. Supplementary Conditions.
  - 5. Specifications as listed in the table of contents of the project manual (copy of list attached).
  - 6. Drawings (not attached but incorporated by reference) consisting of 13 sheets with each sheet bearing the following general title: **Pier Rehabilitation**.
  - 7. Drawings listed on the attached sheet index.
  - 8. Addenda (numbers \_\_\_\_\_ to \_\_\_\_\_, inclusive).
  - 9. Attachments to this Agreement (enumerated as follows):
    - a. Contract Drawings
    - b. Regulatory Permits
    - c. Schedule of Special Inspections
  - 10. 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.
    - e. Warranty Bond, if any.
- B. The Contract Documents listed in Paragraph 7.01.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 7.
- D. The Contract Documents may only be amended, modified, or supplemented as provided in the Contract.

## **ARTICLE 8—REPRESENTATIONS, CERTIFICATIONS, STIPULATIONS, AND CONTRACT PROVISIONS REQUIRED FOR CONTRACTS UNDER FEDERAL AWARDS**

### **8.01 Contractor's Representations**

- A. In order to induce Owner to enter into this Contract, Contractor makes the following representations:
1. Contractor has examined and carefully studied the Contract Documents, including Addenda.
  2. Contractor has visited the Site, conducted a thorough visual examination of the Site and adjacent areas, and become familiar with the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
  3. Contractor is familiar with all Laws and Regulations that may affect cost, progress, and performance of the Work.
  4. Contractor has carefully studied the reports of explorations and tests of subsurface conditions at or adjacent to the Site and the drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, with respect to the Technical Data in such reports and drawings.
  5. Contractor has carefully studied the reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, with respect to Technical Data in such reports and drawings.
  6. 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 Technical Data identified in the Supplementary Conditions or by definition, with respect to the effect of such information, observations, and Technical Data on (a) the cost, progress, and performance of the Work; (b) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor; and (c) Contractor's safety precautions and programs.
  7. 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.
  8. 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.
  9. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and of discrepancies between Site conditions and the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.

10. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
11. 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.
12. Contractor's entry into this Contract constitutes an incontrovertible representation by Contractor, that without exception, Contractor will abide with all requirements imposed by the terms of the federal grant, from which this project is funded, and by the terms imposed by the Small Business Administration, the federal grantor agency.

#### 8.02 *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 8.02:
  1. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process or in the Contract execution;
  2. "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.

#### 8.03 *Standard General Conditions*

- A. Owner stipulates that if the General Conditions that are made a part of this Contract are EJCDC® C-700, Standard General Conditions for the Construction Contract (2018), 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.

#### 8.04 *Provisions for Town of Stonington Construction Contracts Funded By Federal Grants or Awards*

- A. Domestic Preference for Procurements** - As appropriate, and to the extent consistent with law, the contractor should, to the greatest extent practicable, provide a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States. The requirements of this section must be included in all subcontracts and purchase orders for work

or products under this contract. This includes, but is not limited to iron, aluminum, steel, cement, and other manufactured products.

For purposes of this clause:

*Produced in the United States* means, for iron and steel products, that all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States.

*Manufactured products* mean items and construction materials composed in whole or in part of non-ferrous metals such as aluminum; plastics and polymer-based products such as polyvinyl chloride pipe; aggregates such as concrete; glass, including optical fiber; and lumber.”

**B. Buy American Provisions Compliance** - To the extent applicable, Supplier must comply with all applicable provisions of the Buy American Act. Purchases made in accordance with the Buy American Act must follow the applicable procurement rules calling for free and open competition.

The Contractor must comply with the requirements of the Build America, Buy America (BABA) Act, 41 USC 8301 note, and all applicable rules and notices, as may be amended, if applicable to the Town’s infrastructure project. Pursuant to HUD’s Notice, “Public Interest Phased Implementation Waiver for FY 2022 and 2023 of Build America, Buy America Provisions as Applied to Recipients of HUD Federal Financial Assistance” (88 FR 17001), any funds obligated by HUD on or after the applicable listed effective dates, are subject to BABA requirements, unless excepted by a waiver.

**C. Access to Records** - The Contractor agrees to provide the Town of Stonington, (insert name of pass-through entity, if applicable), the SBA/HUD/Program Administrator, the Comptroller General of the United States, or any of their authorized representatives access to any books, documents, papers, and records of the Contractor which are directly pertinent to this contract for the purposes of making audits, examinations, excerpts, and transcriptions.

The Contractor agrees to permit any of the foregoing parties to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed.

The Contractor agrees to provide the SBA Administrator or his/her/they authorized representatives access to construction or other work sites pertaining to the work being completed under the contract.

The Town of Stonington and the Contractor acknowledge and agree that no language in this contract is intended to prohibit audits or internal reviews by the FEMA Administrator or the Comptroller General of the United States.

**D. SBA Seal, Logo, and Flags** - The contractor shall not use the SBA seal(s), logos, crests, or reproductions of flags or likenesses of SBA agency officials without specific SBA pre-approval. The contractor shall include this provision in any and all subcontracts.

**E. Compliance with Federal Law, Regulations, And Executive Orders and Acknowledgement of Federal Funding** - This is an acknowledgement that HUD financial assistance, passed through the SBA, will be used to fund all or a portion of the contract. The contractor will comply with all



applicable federal law, regulations, executive orders, HUD and SBA policies, procedures, and directives.

**F. No Obligation by Federal Government** - The federal government is not a party to this contract and is not subject to any obligations or liabilities to the non-federal entity, contractor, or any other party pertaining to any matter resulting from the contract.

**G. Program Fraud and False or Fraudulent Statements or Related Acts** - The contractor acknowledges that 31 U.S.C. Chap. 38 (Administrative Remedies for False Claims and Statements) applies to the contractor's actions pertaining to this contract.

**H. Contracting with small businesses, minority businesses, women's business enterprises, veteran-owned businesses and labor surplus area firms -**

(a) The Town of Stonington shall ensure that small and minority businesses, women's business enterprises, veteran-owned businesses, and labor surplus area firms are considered

(b) Consideration includes:

(1) Placing qualified business types on solicitation lists;

(2) Soliciting these business types whenever they are deemed eligible as potential sources;

(3) Dividing procurement transactions into separate procurements to permit maximum participation by these business types;

(4) Establishing delivery schedules that encourage participation by these business types; and

(5) Using the services and assistance of organizations such as the Small Business Administration and the Minority Business Development Agency of the Department of Commerce.

(6) The Contractor shall apply this section to subcontracts.

**I. License and Delivery of Works Subject to Copyright and Data Rights** - The Contractor grants to the Town of Stonington, a paid-up, royalty-free, nonexclusive, irrevocable, worldwide license in data first produced in the performance of this contract to reproduce, publish, or otherwise use, including prepare derivative works, distribute copies to the public, and perform publicly and display publicly such data. For data required by the contract but not first produced in the performance of this contract, the Contractor will identify such data and grant to the Town of Stonington or acquires on its behalf a license of the same scope as for data first produced in the performance of this contract. Data, as used herein, shall include any work subject to copyright under 17 U.S.C. § 102, for example, any written reports or literary works, software and/or source code, music, choreography, pictures or images, graphics, sculptures, videos, motion pictures or other audiovisual works, sound and/or video recordings, and architectural works. Upon or before the completion of this contract, the Contractor will deliver to the Town of Stonington data first produced in the performance of this contract and data required by the contract but not

first produced in the performance of this contract in formats acceptable by the Town of Stonington.

**J. Never contract with the enemy** - Federal awarding agencies and recipients are subject to the regulations implementing Never Contract with the Enemy in 2 CFR part 183. The regulations in 2 CFR part 183 affect covered contracts, grants and cooperative agreements that are expected to exceed \$50,000 within the period of performance, are performed outside the United States and its territories, and are in support of a contingency operation in which members of the Armed Forces are actively engaged in hostilities.

**K. Increasing Seat Belt Use in the United States** - Pursuant to Executive Order 13043, 62 FR 19217 (Apr. 18, 1997), Recipient should encourage its contractors to adopt and enforce on-the-job seat belt policies and programs for their employees when operating company-owned, rented or personally owned vehicles.

**L. Reducing Text Messaging While Driving** - Pursuant to Executive Order 13513, 74 FR 51225 (Oct. 6, 2009), Recipient should encourage its employees, subrecipients, and contractors to adopt and enforce policies that ban text messaging while driving, and Recipient should establish workplace safety policies to decrease accidents caused by distracted drivers.

**M. Termination -**

- A. *Termination For Cause, Sanctions And Penalties* - If, through any cause, the Contractor shall fail to fulfill, in a timely and proper manner, its obligations under this Agreement, or if the Consultant shall violate any laws or any of the covenants, agreements, or stipulations of this Agreement, the Town shall thereupon have the right to terminate this Agreement for cause by giving written notice to the Contractor of such termination and specifying the effective date thereof, at least five (5) days before the effective date of such termination. In that event, all finished or unfinished reports, documents, data, studies, photographs, or other material prepared by the Contractor pursuant to its performance under this Agreement shall, at the option of the Town, become the Town's property. The Contractor shall be entitled to receive just and equitable compensation for any satisfactory services completed up to the effective date of termination. The Contractor shall not be responsible for any claims resulting from the Town's use of the documents on another project or changes made to the documents without the Contractor's express written permission;

The term "cause" includes, without limitation the following:

- 1) If the Contractor furnished any statement, representation, warranty or certification in connection with this Agreement, which is materially false, deceptive, incorrect, or incomplete;
- 2) If the Contractor fails to perform to the Town's satisfaction any material requirement of this Agreement or is in violation of any specific provision thereof or any State or Federal law or requirement; or

- 3) If the Town reasonably determines that satisfactory performance of this Agreement is substantially endangered or can reasonably anticipate such an occurrence or default.

Should the Town terminate this Agreement for cause, the Contractor shall not be relieved of liability to the Town for any damages sustained by the Town by virtue of any breach of this Agreement by the Contractor and the Town may withhold any payment to the Contractor for the purposes of setoff until such time as the exact amount of damages due the Town from the Contractor is determined. Further, if applicable, the Town shall have the right to:

- 1) Complete the work of this Agreement, or any part thereof, either by itself or by other consultants, at the expense of the Contractor;
- 2) Purchase the products or services that are the subject of this Agreement elsewhere and hold the Contractor responsible for any increase in cost;
- 3) Pursue any equitable remedy, including, but not limited to, specific performance or injunction; and/or
- 4) Disqualify the Contractor from bidding on, submitting proposals for, or being awarded any Town contract for a period not to exceed two (2) years from the date of such termination.

B. *Termination for Convenience* - The Town may terminate this Agreement at any time the Town determines that the purposes of the distribution of monies under the Agreement would no longer be served by the services provided. The Town shall affect such termination by giving written notice of termination to the Contractor and specifying the effective date thereof, at least twenty (20) days before the effective date of such termination. In that event, all finished or unfinished documents and other materials as described Subsection A shall, at the option of the Town, become property of the Town. If the Agreement is terminated by the Town as provided herein, the Contractor shall be paid an amount which bears the same ratio to the total compensation as the services actually and satisfactorily performed to the effective date of termination bear to the total services of the Contractor pursuant to the terms of the Agreement, less payments of compensation previously made, and subject to the Town's right of set off for any damages pursuant to the terms of the Agreement.

**N. Equal Employment Opportunity** - During the performance of this contract, the contractor agrees as follows:

(1) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer; recruitment or

recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

(2) The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.

(3) The contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the contractor's legal duty to furnish information.

(4) The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(5) The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(6) The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(7) In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(8) The contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (8) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with

respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: *Provided*, however, that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

The applicant further agrees that it will be bound by the above equal opportunity clause with respect to its own employment practices when it participates in federally assisted construction work: *Provided*, that if the applicant so participating is a state or local government, the above equal opportunity clause is not applicable to any agency, instrumentality or subdivision of such government which does not participate in work on or under the contract.

The applicant agrees that it will assist and cooperate actively with the administering agency and the Secretary of Labor in obtaining the compliance of contractors and subcontractors with the equal opportunity clause and the rules, regulations, and relevant orders of the Secretary of Labor, that it will furnish the administering agency and the Secretary of Labor such information as they may require for the supervision of such compliance, and that it will otherwise assist the administering agency in the discharge of the agency's primary responsibility for securing compliance.

The applicant further agrees that it will refrain from entering into any contract or contract modification subject to Executive Order 11246 of September 24, 1965, with a contractor debarred from, or who has not demonstrated eligibility for, Government contracts and federally assisted construction contracts pursuant to the Executive Order and will carry out such sanctions and penalties for violation of the equal opportunity clause as may be imposed upon contractors and subcontractors by the administering agency or the Secretary of Labor pursuant to Part II, Subpart D of the Executive Order. In addition, the applicant agrees that if it fails or refuses to comply with these undertakings, the administering agency may take any or all of the following actions: Cancel, terminate, or suspend in whole or in part this grant (contract, loan, insurance, guarantee); refrain from extending any further assistance to the applicant under the program with respect to which the failure or refund occurred until satisfactory assurance of future compliance has been received from such applicant; and refer the case to the Department of Justice for appropriate legal proceedings.

**O. Davis-Bacon Act -**

The Agency head shall cause or require the contracting officer to insert in full in any contract in excess of \$2,000 which is entered into for the actual construction, alteration and/or repair, including painting and decorating, of a public building or public work, or building or work financed in whole or in part from Federal funds or in accordance with guarantees of a Federal agency or financed from funds obtained by pledge of any contract of a Federal agency to make a loan, grant or annual contribution (except where a different meaning is expressly indicated), and which is subject to the labor standards provisions of any of the acts listed in § 5.1, the following clauses (or any modifications thereof to meet the particular needs of the agency, *Provided*, That such modifications are first approved by the Department of Labor):

**(1) *Minimum wages* -**

(i) All laborers and mechanics employed or working upon the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act ([29 CFR part 3](#))), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of [paragraph \(a\)\(1\)\(iv\)](#) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in [§ 5.5\(a\)\(4\)](#). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: *Provided*, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under [paragraph \(a\)\(1\)\(ii\)](#) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

(ii)

(A) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

- (1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and
- (2) The classification is utilized in the area by the construction industry; and
- (3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to [paragraphs \(a\)\(1\)\(ii\) \(B\)](#) or [\(C\)](#) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(i) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(ii) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, *Provided*, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside, in a separate account, assets for the meeting of obligations under the plan or program.

## **(2) *Withholding* –**

The (write in name of Federal Agency or the loan or grant recipient) shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary

to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), all or part of the wages required by the contract, the (Agency) may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

**(3) *Payrolls and basic records -***

(i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work (or under the United States Housing Act of 1937, or under the Housing Act of 1949, in the construction or development of the project). Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under [29 CFR 5.5\(a\)\(1\)\(iv\)](#) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii)

(A) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the (write in name of appropriate federal agency) if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit the payrolls to the applicant, sponsor, or owner, as the case may be, for transmission to the (write in name of agency). The payrolls submitted shall set out accurately and completely all of the information required to be maintained under [29 CFR 5.5\(a\)\(3\)\(i\)](#), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead, the payrolls shall only need to include an individually identifying number for each employee (*e.g.*, the last four digits of the employee's social security number). The required weekly payroll information



may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the (write in name of appropriate federal agency) if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit them to the applicant, sponsor, or owner, as the case may be, for transmission to the (write in name of agency), the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the sponsoring government agency (or the applicant, sponsor, or owner).

(B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be provided under [§ 5.5 \(a\)\(3\)\(ii\)](#) of Regulations, [29 CFR part 5](#), the appropriate information is being maintained under [§ 5.5 \(a\)\(3\)\(i\)](#) of Regulations, [29 CFR part 5](#), and that such information is correct and complete;

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, [29 CFR part 3](#);

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by [paragraph \(a\)\(3\)\(ii\)\(B\)](#) of this section.

(D) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under [paragraph \(a\)\(3\)\(i\)](#) of this section available for inspection, copying, or transcription by authorized representatives of the (write the name of the agency) or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the Federal agency may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to [29 CFR 5.12](#).

**(4) *Apprentices and trainees* -**

(i) *Apprentices* - Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that

determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) *Trainees* - Except as provided in [29 CFR 5.16](#), trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) *Equal employment opportunity* - The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and [29 CFR part 30](#).

(5) ***Compliance with Copeland Act requirements*** - The contractor shall comply with the requirements of [29 CFR part 3](#), which are incorporated by reference in this contract.

(6) ***Subcontracts*** - The contractor or subcontractor shall insert in any subcontracts the clauses contained in [29 CFR 5.5\(a\)\(1\)](#) through [\(10\)](#) and such other clauses as the (write in the name of the Federal agency) may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in [29 CFR 5.5](#).

(7) **Contract termination: debarment** - A breach of the contract clauses in [29 CFR 5.5](#) may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in [29 CFR 5.12](#).

(8) **Compliance with Davis-Bacon and Related Act requirements** - All rulings and interpretations of the Davis-Bacon and Related Acts contained in [29 CFR parts 1, 3, and 5](#) are herein incorporated by reference in this contract.

(9) **Disputes concerning labor standards** - Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in [29 CFR parts 5, 6, and 7](#). Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

(10) **Certification of eligibility** -

(i) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or [29 CFR 5.12\(a\)\(1\)](#).

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or [29 CFR 5.12\(a\)\(1\)](#).

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, [18 U.S.C. 1001](#).

P. The current prevailing wage determination issued by the U.S. Department of Labor is included in the bid document as **Exhibit G**. Contractor will be responsible for preparing and submitting, weekly certified payrolls, to the project manager for their review.

**Q. Compliance with the Copeland "Anti-Kickback" Act**

**Contractor** - The contractor shall comply with 18 U.S.C. § 874, 40 U.S.C. § 3145, and the requirements of 29 C.F.R. Part 3 as may be applicable, which are incorporated by reference into this contract.

**Subcontracts** - The contractor or subcontractor shall insert in any subcontracts the clause above and such other clauses as HUD may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all of these contract clauses.

**Breach** - A breach of the contract clauses above may be grounds for termination of the contract, and for debarment as a contractor and subcontractor as provided in 29 C.F.R. § 5.12.

a. Application - The advertised specifications for every contract in excess of \$2,000, to which the Federal Government or the District of Columbia is a party, for

construction, alteration, or repair, including painting and decorating, of public buildings and public works of the Government or the District of Columbia that are located in a State or the District of Columbia and which requires or involves the employment of mechanics or laborers shall contain a provision stating the minimum wages to be paid various classes of laborers and mechanics.

- b. Based on Prevailing Wage - The minimum wages shall be based on the wages the Secretary of Labor determines to be prevailing for the corresponding classes of laborers and mechanics employed on projects of a character similar to the contract work in the civil subdivision of the State in which the work is to be performed, or in the District of Columbia if the work is to be performed there.
- c. Stipulations Required in Contract - Every contract based upon the specifications referred to in subsection (a) must contain stipulations that—
  - (1) the contractor or subcontractor shall pay all mechanics and laborers employed directly on the site of the work, unconditionally and at least once a week, and without subsequent deduction or rebate on any account, the full amounts accrued at time of payment, computed at wage rates not less than those stated in the advertised specifications, regardless of any contractual relationship which may be alleged to exist between the contractor or subcontractor and the laborers and mechanics;
  - (2) the contractor will post the scale of wages to be paid in a prominent and easily accessible place at the site of the work; and
  - (3) there may be withheld from the contractor so much of accrued payments as the contracting officer considers necessary to pay to laborers and mechanics employed by the contractor or any subcontractor on the work the difference between the rates of wages required by the contract to be paid laborers and mechanics on the work and the rates of wages received by the laborers and mechanics and not refunded to the contractor or subcontractors or their agents.
- d. Discharge of Obligation - The obligation of a contractor or subcontractor to make payment in accordance with the prevailing wage determinations of the Secretary of Labor, under this subchapter and other laws incorporating this subchapter by reference, may be discharged by making payments in cash, by making contributions described in section 3141(2)(B)(i) of this title, by assuming an enforceable commitment to bear the costs of a plan or program referred to in section 3141 (2)(B)(ii) of this title, or by any combination of payment, contribution, and assumption, where the aggregate of the payments, contributions, and costs is not less than the basic hourly rate of pay plus the amount referred to in section 3141(2)(B) of this title.
- e. Overtime Pay - In determining the overtime pay to which a laborer or mechanic is entitled under any federal law, the regular or basic hourly rate of pay (or other alternative rate on which premium rate of overtime compensation is computed) of the laborer or mechanic is deemed to be the rate computed under section 3141 (2)(A) of this title, except that where the amount of payments, contributions, or costs incurred with respect to the laborer or mechanic exceeds the applicable prevailing wage, the regular or basic hourly rate of pay (or other alternative rate)

is the amount of payments, contributions, or costs actually incurred with respect to the laborer or mechanic minus the greater of the amount of contributions or costs of the types described in section 3141(2)(B) of this title actually incurred with respect to the laborer or mechanic or the amount determined under section 3141(2)(B) of this title, but not actually paid.

- f. If the contracting officer finds that any laborer or mechanic employed by the contractor or any subcontractor directly on the site of the work covered by the contract has been or is being paid a rate of wages less than the rate of wages required by the contract to be paid, the Federal Government by written notice to the contractor may terminate the contractor's right to proceed with the work or the part of the work as to which there has been a failure to pay the required wages. The Government may have the work completed, by contract or otherwise, and the contractor and the contractor's sureties shall be liable to the Government for any excess costs the Government incurs.
- g. Each contractor and subcontractor, each week, must furnish a statement on the wages paid each employee during the prior week.

**R. Contract Work Hours and Safety Standards Act – (40 U.S.C. 3701-3708)**

- a. Standard Workweek - The wages of every laborer and mechanic employed by any contractor or subcontractor in the performance of work on a contract described in section 3701 of this title shall be computed on the basis of a standard workweek of 40 hours. Work in excess of the standard workweek is permitted subject to this section. For each workweek in which the laborer or mechanic is so employed, wages include compensation, at a rate not less than one and one-half times the basic rate of pay, for all hours worked in excess of 40 hours in such workweek.
- b. Contract Requirements – A contract described in section 3701 of this title, and any obligation of the Federal Government, a territory of the United States, or the District of Columbia in connection with that contract, must provide that—
  - i. A contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall not require or permit any laborer or mechanic, in any workweek in which the laborer or mechanic is employed on that work, to work more than 40 hours in that workweek, except as provided in this chapter; and
  - ii. When a violation of clause (1) occurs, the contractor and any subcontractor responsible for the violation are liable –
    - (a) To the affected employee for the employee's unpaid wages; and
    - (b) To the US Government, the District of Columbia, or a territory, for liquidated damages as provided in the contract.

- (c) Liquidated Damages - Liquidated damages under subsection (b)(2)(B) shall be computed for each individual employed as a laborer or mechanic in violation of this chapter and shall be equal to \$10 for each calendar day on which the individual was required or permitted to work in excess of the standard workweek without payment of the overtime wages required by this chapter.
  - (d) Amounts Withheld to Satisfy Liabilities - Subject to section 3703 of this title, the governmental agency for which the contract work is done or which is providing financial assistance for the work may withhold, or have withheld, from money payable because of work performed by a contractor or subcontractor, amounts administratively determined to be necessary to satisfy the liabilities of the contractor or subcontractor for unpaid wages and liquidated damages as provided in this section.
- c. Further Compliance with the Contract Work Hours and Safety Standards Act –
  - i. The contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid.
  - ii. Records to be maintained under this provision shall be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the Department of xxx, and the Department of Labor, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job.
- S. **Rights to Inventions Made Under a Contract or Agreement** - - If the Federal award meets the definition of “funding agreement” under 37 CFR § 401.2 (a) and the recipient or subrecipient wishes to enter into a contract with a small business firm or nonprofit organization regarding the substitution of parties, assignment or performance of experimental, developmental, or research work under that “funding agreement,” the recipient or subrecipient must comply with the requirements of 37 CFR Part 401, “Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements,” and any implementing regulations issued by the awarding agency.
- T. **Clean Air Act** – (42 U.S.C. 7401-7671q) and Federal Water Pollution Control Act (33 U.S.C. 1251-1387) -The contractor agrees to report each violation to the Town of Stonington and understands and agrees that the Town of Stonington will, in turn, report each violation as required to assure notification to HUD and the SBA, and the appropriate [Environmental Protection Agency Regional Office](#). The contractor agrees to include these requirements in



each subcontract exceeding \$150,000 financed in whole or in part with federal assistance provided by HUD.

- U. Federal Water Pollution Control Act** - The contractor agrees to comply with all applicable standards, orders, or regulations issued pursuant to the federal Water Pollution Control Act, as amended, 33 U.S.C. § 1251 *et seq.* The contractor agrees to report each violation to the Town of Stonington and understands and agrees that the Town of Stonington will, in turn, report each violation as required to assure notification to HUD and the SBA, and the appropriate [Environmental Protection Agency Regional Office](#).
- V. Suspension and Debarment** - This contract is a covered transaction for purposes of 2 C.F.R. § 200.214 and 2 C.F.R. Part 180 and 2 C.F.R. Part 3000. As such, the contractor is required to verify that none of the contractor's principals (defined at 2 C.F.R. § 180.995) or its affiliates (defined at 2 C.F.R. § 180.905) are excluded (defined at 2 C.F.R. § 180.940) or disqualified (defined at 2 C.F.R. § 180.935).

The contractor must comply with 2 C.F.R. Part 180, subpart C and 2 C.F.R. Part 3000, subpart C, and must include a requirement to comply with these regulations in any lower tier covered transaction it enters into.

This certification is a material representation of fact relied upon by the Town of Stonington. If it is later determined that the contractor did not comply with 2 C.F.R. Part 180, subpart C and 2 C.F.R. Part 3000, subpart C, in addition to remedies available to the Town of Stonington, the federal government may pursue available remedies, including but not limited to suspension and/or debarment.

The bidder or proposer agrees to comply with the requirements of 2 C.F.R. Part 180, subpart C and 2 C.F.R. Part 3000, subpart C while this offer is valid and throughout the period of any contract that may arise from this offer. The bidder or proposer further agrees to include a provision requiring such compliance in its lower tier covered transactions.

- W. Byrd Anti-Lobbying Amendment, 31 U.S.C. § 1352 (as amended)** - Contractors who apply or bid for an award of more than \$100,000 shall file the required certification. Each tier certifies to the tier above that it will not and has not used federally appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, officer or employee of Congress, or an employee of a Member of Congress in connection with obtaining any federal contract, grant, or any other award covered by 31 U.S.C. § 1352. Each tier shall also disclose any lobbying with non-federal funds that takes place in connection with obtaining any federal award. Such disclosures are forwarded from tier to tier up to the recipient who in turn will forward the certification(s) to the federal awarding agency. See Anti-Lobbying certification form at **Exhibit F**.
- X. Procurement of Recovered Materials** - In the performance of this contract, the Contractor shall make maximum use of products containing recovered materials that are EPA-designated items unless the product cannot be acquired;

Competitively within a timeframe providing for compliance with the contract performance schedule;



Meeting contract performance requirements; or At a reasonable price.

Information about this requirement, along with the list of EPA-designated items, is available at EPA's Comprehensive Procurement Guidelines webpage:  
<https://www.epa.gov/smm/comprehensive-procurement-guideline-cpg-program>.

The Contractor also agrees to comply with all other applicable requirements of Section 6002 of the Solid Waste Disposal Act.

**Y. Prohibition on Contracting for Covered Telecommunications Equipment or Services –**

(a) *Definitions* - As used in this clause, the terms backhaul; covered foreign country; covered telecommunications equipment or services; interconnection arrangements; roaming; substantial or essential component; and telecommunications equipment or services have the meaning as defined in FEMA Policy 405-143-1, Prohibitions on Expending Federal Award Funds for Covered Telecommunications Equipment or Services (Interim), as used in this clause.

(b) *Prohibitions* - Section 889(b) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019, Pub. L. No. 115-232, and 2 C.F.R. § 200.216 prohibit the head of an executive agency on or after Aug.13, 2020, from obligating or expending grant, cooperative agreement, loan, or loan guarantee funds on certain telecommunications products or from certain entities for national security reasons.

Unless an exception in paragraph (c) of this clause applies, the contractor and its subcontractors may not use grant, cooperative agreement, loan, or loan guarantee funds from the Federal Emergency Management Agency to:

- Procure or obtain any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology of any system;
- Enter into, extend, or renew a contract to procure or obtain any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology of any system;
- Enter into, extend, or renew contracts with entities that use covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system; or
- Provide, as part of its performance of this contract, subcontract, or other contractual instrument, any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system.

(c) *Exceptions* –

- (1) This clause does not prohibit contractors from providing -

- (i) A service that connects to the facilities of a third-party, such as backhaul, roaming, or interconnection arrangements; or
  - (ii) Telecommunications equipment that cannot route or redirect user data traffic or permit visibility into any user data or packets that such equipment transmits or otherwise handles.
- (2) Reporting requirement -
  - (i) In the event the contractor identifies covered telecommunications equipment or services used as a substantial or essential component of any system, or as critical technology as part of any system, during contract performance, or the contractor is notified of such by a subcontractor at any tier or by any other source, the contractor shall report the information in paragraph (d)(2) of this clause to the recipient or subrecipient, unless elsewhere in this contract are established procedures for reporting the information.
  - (ii) The Contractor shall report the following information pursuant to paragraph (d)(1) of this clause –
    - Within one business day from the date of such identification or notification: The contract number; the order number(s), if applicable; supplier name; supplier unique entity identifier (if known); supplier Commercial and Government Entity (CAGE) code (if known); brand; model number (original equipment manufacturer number, manufacturer part number, or wholesaler number); item description; and any readily available information about mitigation actions undertaken or recommended.
    - Within 10 business days of submitting the information in paragraph (d)(2)(i) of this clause: Any further available information about mitigation actions undertaken or recommended. In addition, the contractor shall describe the efforts it undertook to prevent use or submission of covered telecommunications equipment or services, and any additional efforts that will be incorporated to prevent future use or submission of covered telecommunications equipment or services.
- (3) Subcontracts –

The Contractor shall insert the substance of this clause, including this paragraph (3), in all subcontracts and other contractual instruments.

**Z. Dispute Resolution -**

**A. Executive Meeting –**

The parties shall endeavor to resolve all claims, disputes, or other matters in controversy arising out of or related to the Contract (“Claims”) through a

meeting of the chief executives of each party, or their respective designees (“Executive Meeting”).

A request for an Executive Meeting shall be made by a party in writing and delivered to the other party. The request may be made concurrently with the filing of a non-binding mediation as set forth herein. The Executive Meeting shall be a condition precedent to mediation unless 30 days have passed after the Executive Meeting has been requested with no meeting having been held.

The Executive Meeting shall be held in the place where the Project is located, unless another location is mutually agreed upon.

**B. Mediation –**

Any Claim subject to, but not resolved by, an Executive Meeting shall be subject to mediation which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with its Construction Industry Mediation Procedures in effect on the date of the Agreement. A request for mediation shall be made in writing, delivered to the other party to the Contract, and filed with the person or entity administering the mediation.

The request may be made concurrently with the filing of arbitration but, in such event, mediation shall proceed in advance of arbitration, which shall be stayed pending mediation for a period of 60 days from the date of filing, unless stayed for a longer period by agreement of the parties or court order. If an arbitration is stayed pursuant to this Section, the parties may nonetheless proceed to the selection of the arbitrator(s) and agree upon a schedule for later proceedings.

The parties shall share the mediator’s fee and any filing fees equally. The mediation shall be held in the place where the Project is located, unless another location is mutually agreed upon. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof.

**C. Arbitration –**

Any Claim subject to, but not resolved by, mediation shall, in the sole discretion of the Town, be subject to arbitration which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with its Construction Industry Arbitration Rules in effect on the date of the Agreement. A demand for arbitration shall be made in writing, delivered to the other party to the Contract, and filed with the person or entity administering the arbitration.

A demand for arbitration shall be made no earlier than concurrently with the filing of a request for mediation, but in no event shall it be made after the date when the institution of legal or equitable proceedings based on the Claim would be barred by the applicable statute of limitations. For statute of limitations purposes, receipt of a written demand for

arbitration by the person or entity administering the arbitration shall constitute the institution of legal or equitable proceedings based on the Claim.

The award rendered by the arbitrator or arbitrators shall be final, and judgment may be entered upon it in accordance with applicable law.

Any judgment will be entered or court action will be brought in a court of competent jurisdiction within the State of Connecticut.

D. Performance During Dispute –

Unless otherwise directed by the Town of Stamford, Contractor shall continue performance under this Contract while matters in dispute are being resolved.

E. Claims for Damages –

Should either party to the Contract suffer injury or damage to person or property because of any act or omission of the party or of any of his employees, agents or others for whose acts he is legally liable, a claim for damages therefor shall be made in writing to such other party within a reasonable time after the first observance of such injury or damage.

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

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

Owner:

Contractor:

\_\_\_\_\_  
(typed or printed name of organization)

By: \_\_\_\_\_  
(individual's signature)

Date: \_\_\_\_\_  
(date signed)

Name: \_\_\_\_\_  
(typed or printed)

Title: \_\_\_\_\_  
(typed or printed)

Attest: \_\_\_\_\_  
(individual's signature)

Title: \_\_\_\_\_  
(typed or printed)

Address for giving notices:

\_\_\_\_\_  
\_\_\_\_\_

Designated Representative:

Name: \_\_\_\_\_  
(typed or printed)

Title: \_\_\_\_\_  
(typed or printed)

Address:

\_\_\_\_\_  
\_\_\_\_\_

Phone: \_\_\_\_\_

Email: \_\_\_\_\_

(If **[Type of Entity]** is a corporation, attach evidence of authority to sign. If **[Type of Entity]** is a public body, attach evidence of authority to sign and resolution or other documents authorizing execution of this Agreement.)

\_\_\_\_\_  
(typed or printed name of organization)

By: \_\_\_\_\_  
(individual's signature)

Date: \_\_\_\_\_  
(date signed)

Name: \_\_\_\_\_  
(typed or printed)

Title: \_\_\_\_\_  
(typed or printed)

(If **[Type of Entity]** is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.)

Attest: \_\_\_\_\_  
(individual's signature)

Title: \_\_\_\_\_  
(typed or printed)

Address for giving notices:

\_\_\_\_\_  
\_\_\_\_\_

Designated Representative:

Name: \_\_\_\_\_  
(typed or printed)

Title: \_\_\_\_\_  
(typed or printed)

Address:

\_\_\_\_\_  
\_\_\_\_\_

Phone: \_\_\_\_\_

Email: \_\_\_\_\_

License No.: \_\_\_\_\_  
(where applicable)

State: \_\_\_\_\_

**SECTION 00610**  
**PERFORMANCE BOND (EJCDC FORM 610)**

## PERFORMANCE BOND

<b>Contractor</b> Name: Address <i>(principal place of business)</i> :	<b>Surety</b> Name: Address <i>(principal place of business)</i> :
<b>Owner</b> Name: <b>Town of Stonington</b> Mailing address <i>(principal place of business)</i> : <b>152 Elm Street</b> <b>Stonington, CT, 06378</b>	<b>Contract</b> Description <i>(name and location)</i> : North Pier Rehabilitation Stonington Town Dock Town of Stonington Contract Price: <b>[Amount from Contract]</b> Effective Date of Contract: <b>[Date from Contract]</b>
<b>Bond</b> Bond Amount: Date of Bond: <i>(Date of Bond cannot be earlier than Effective Date of Contract)</i> Modifications to this Bond form: <input type="checkbox"/> None <input type="checkbox"/> See Paragraph 16	
Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth in this Performance Bond, do each cause this Performance Bond to be duly executed by an authorized officer, agent, or representative.	
Contractor as Principal	Surety
<i>(Full formal name of Contractor)</i>	<i>(Full formal name of Surety) (corporate seal)</i>
By: _____ <div style="text-align: center;"><i>(Signature)</i></div>	By: _____ <div style="text-align: center;"><i>(Signature)(Attach Power of Attorney)</i></div>
Name: _____ <div style="text-align: center;"><i>(Printed or typed)</i></div>	Name: _____ <div style="text-align: center;"><i>(Printed or typed)</i></div>
Title: _____	Title: _____
Attest: _____ <div style="text-align: center;"><i>(Signature)</i></div>	Attest: _____ <div style="text-align: center;"><i>(Signature)</i></div>
Name: _____ <div style="text-align: center;"><i>(Printed or typed)</i></div>	Name: _____ <div style="text-align: center;"><i>(Printed or typed)</i></div>
Title: _____	Title: _____
<i>Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party is considered plural where applicable.</i>	

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 will arise after:
  - 3.1. The Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice may 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 will 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 does 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 does 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.
- 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 will not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety will 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 will not be reduced or set off on account of any such unrelated obligations. No right of action will 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 must be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and must 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 will be applicable.
- 12. Notice to the Surety, the Owner, or the Contractor must 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 will be deemed deleted therefrom and provisions conforming to such

statutory or other legal requirement will be deemed incorporated herein. When so furnished, the intent is that this Bond will 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 will be deemed to be Subcontractor and the term Owner will be deemed to be Contractor.
16. Modifications to this Bond are as follows: **None**

**SECTION 00700**  
**GENERAL CONDITIONS (EJCDC FORM C700)**

# STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

## TABLE OF CONTENTS

	Page
Article 1—Definitions and Terminology.....	1
1.01 Defined Terms.....	1
1.02 Terminology .....	6
Article 2—Preliminary Matters .....	7
2.01 Delivery of Performance and Payment Bonds; Evidence of Insurance.....	7
2.02 Copies of Documents .....	7
2.03 Before Starting Construction .....	7
2.04 Preconstruction Conference; Designation of Authorized Representatives .....	8
2.05 Acceptance of Schedules .....	8
2.06 Electronic Transmittals .....	8
Article 3—Contract Documents: Intent, Requirements, Reuse.....	9
3.01 Intent.....	9
3.02 Reference Standards.....	9
3.03 Reporting and Resolving Discrepancies .....	10
3.04 Requirements of the Contract Documents.....	10
3.05 Reuse of Documents .....	11
Article 4—Commencement and Progress of the Work .....	11
4.01 Commencement of Contract Times; Notice to Proceed.....	11
4.02 Starting the Work.....	11
4.03 Reference Points .....	11
4.04 Progress Schedule .....	12
4.05 Delays in Contractor’s Progress .....	12
Article 5—Site; Subsurface and Physical Conditions; Hazardous Environmental Conditions .....	13
5.01 Availability of Lands .....	13
5.02 Use of Site and Other Areas.....	14
5.03 Subsurface and Physical Conditions.....	15
5.04 Differing Subsurface or Physical Conditions .....	16

5.05	Underground Facilities .....	17
5.06	Hazardous Environmental Conditions at Site .....	19
Article 6—Bonds and Insurance.....		21
6.01	Performance, Payment, and Other Bonds .....	21
6.02	Insurance—General Provisions .....	22
6.03	Contractor’s Insurance.....	24
6.04	Builder’s Risk and Other Property Insurance .....	25
6.05	Property Losses; Subrogation .....	25
6.06	Receipt and Application of Property Insurance Proceeds .....	27
Article 7—Contractor’s Responsibilities .....		27
7.01	Contractor’s Means and Methods of Construction .....	27
7.02	Supervision and Superintendence .....	27
7.03	Labor; Working Hours .....	27
7.04	Services, Materials, and Equipment .....	28
7.05	“Or Equals” .....	28
7.06	Substitutes .....	29
7.07	Concerning Subcontractors and Suppliers.....	31
7.08	Patent Fees and Royalties.....	32
7.09	Permits .....	33
7.10	Taxes .....	33
7.11	Laws and Regulations.....	33
7.12	Record Documents.....	33
7.13	Safety and Protection .....	34
7.14	Hazard Communication Programs .....	35
7.15	Emergencies .....	35
7.16	Submittals .....	35
7.17	Contractor’s General Warranty and Guarantee .....	38
7.18	Indemnification .....	39
7.19	Delegation of Professional Design Services .....	39
Article 8—Other Work at the Site.....		40
8.01	Other Work .....	40
8.02	Coordination .....	41
8.03	Legal Relationships.....	41

Article 9—Owner’s Responsibilities .....	42
9.01 Communications to Contractor .....	42
9.02 Replacement of Engineer .....	42
9.03 Furnish Data .....	42
9.04 Pay When Due.....	42
9.05 Lands and Easements; Reports, Tests, and Drawings .....	43
9.06 Insurance.....	43
9.07 Change Orders .....	43
9.08 Inspections, Tests, and Approvals.....	43
9.09 Limitations on Owner’s Responsibilities .....	43
9.10 Undisclosed Hazardous Environmental Condition.....	43
9.11 Evidence of Financial Arrangements.....	43
9.12 Safety Programs .....	43
Article 10—Engineer’s Status During Construction .....	44
10.01 Owner’s Representative.....	44
10.02 Visits to Site.....	44
10.03 Resident Project Representative.....	44
10.04 Engineer’s Authority .....	44
10.05 Determinations for Unit Price Work .....	45
10.06 Decisions on Requirements of Contract Documents and Acceptability of Work .....	45
10.07 Limitations on Engineer’s Authority and Responsibilities .....	45
10.08 Compliance with Safety Program.....	45
Article 11—Changes to the Contract .....	46
11.01 Amending and Supplementing the Contract .....	46
11.02 Change Orders .....	46
11.03 Work Change Directives.....	46
11.04 Field Orders.....	47
11.05 Owner-Authorized Changes in the Work .....	47
11.06 Unauthorized Changes in the Work.....	47
11.07 Change of Contract Price .....	47
11.08 Change of Contract Times.....	48
11.09 Change Proposals.....	49
11.10 Notification to Surety.....	50

Article 12—Claims.....	50
12.01    Claims.....	50
Article 13—Cost of the Work; Allowances; Unit Price Work .....	51
13.01    Cost of the Work .....	51
13.02    Allowances .....	55
13.03    Unit Price Work.....	55
Article 14—Tests and Inspections; Correction, Removal, or Acceptance of Defective Work .....	56
14.01    Access to Work.....	56
14.02    Tests, Inspections, and Approvals.....	56
14.03    Defective Work .....	57
14.04    Acceptance of Defective Work.....	58
14.05    Uncovering Work .....	58
14.06    Owner May Stop the Work .....	58
14.07    Owner May Correct Defective Work.....	59
Article 15—Payments to Contractor; Set-Offs; Completion; Correction Period .....	59
15.01    Progress Payments.....	59
15.02    Contractor’s Warranty of Title .....	62
15.03    Substantial Completion.....	62
15.04    Partial Use or Occupancy .....	63
15.05    Final Inspection .....	64
15.06    Final Payment.....	64
15.07    Waiver of Claims .....	65
15.08    Correction Period .....	66
Article 16—Suspension of Work and Termination .....	67
16.01    Owner May Suspend Work .....	67
16.02    Owner May Terminate for Cause.....	67
16.03    Owner May Terminate for Convenience.....	68
16.04    Contractor May Stop Work or Terminate .....	68
Article 17—Final Resolution of Disputes .....	69
17.01    Methods and Procedures.....	69
Article 18—Miscellaneous .....	69
18.01    Giving Notice .....	69
18.02    Computation of Times.....	69

18.03	Cumulative Remedies .....	70
18.04	Limitation of Damages .....	70
18.05	No Waiver .....	70
18.06	Survival of Obligations .....	70
18.07	Controlling Law .....	70
18.08	Assignment of Contract.....	70
18.09	Successors and Assigns .....	70
18.10	Headings.....	70



# STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

## ARTICLE 1—DEFINITIONS AND TERMINOLOGY

### 1.01 *Defined Terms*

- A. Wherever used in the Bidding Requirements or Contract Documents, a term printed with initial capital letters, including the term's singular and plural forms, will have the meaning indicated in the definitions below. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.
1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.
  2. *Agreement*—The written instrument, executed by Owner and Contractor, that sets forth the Contract Price and Contract Times, identifies the parties and the Engineer, and designates the specific items that are Contract Documents.
  3. *Application for Payment*—The document prepared by Contractor, in a form acceptable to Engineer, to request progress or final payments, and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
  4. *Bid*—The offer of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
  5. *Bidder*—An individual or entity that submits a Bid to Owner.
  6. *Bidding Documents*—The Bidding Requirements, the proposed Contract Documents, and all Addenda.
  7. *Bidding Requirements*—The Advertisement or invitation to bid, Instructions to Bidders, Bid Bond or other Bid security, if any, the Bid Form, and the Bid with any attachments.
  8. *Change Order*—A document which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, or other revision to the Contract, issued on or after the Effective Date of the Contract.
  9. *Change Proposal*—A written request by Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment in Contract Price or Contract Times; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; challenging a set-off against payments due; or seeking other relief with respect to the terms of the Contract.
  10. *Claim*
    - a. A demand or assertion by Owner directly to Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment of Contract Price or Contract Times; contesting an initial decision by Engineer concerning the

- requirements of the Contract Documents or the acceptability of Work under the Contract Documents; contesting Engineer's decision regarding a Change Proposal; seeking resolution of a contractual issue that Engineer has declined to address; or seeking other relief with respect to the terms of the Contract.
- b. A demand or assertion by Contractor directly to Owner, duly submitted in compliance with the procedural requirements set forth herein, contesting Engineer's decision regarding a Change Proposal, or seeking resolution of a contractual issue that Engineer has declined to address.
  - c. A demand or assertion by Owner or Contractor, duly submitted in compliance with the procedural requirements set forth herein, made pursuant to Paragraph 12.01.A.4, concerning disputes arising after Engineer has issued a recommendation of final payment.
  - d. A demand for money or services by a third party is not a Claim.
11. *Constituent of Concern*—Asbestos, petroleum, radioactive materials, polychlorinated biphenyls (PCBs), lead-based paint (as defined by the HUD/EPA standard), hazardous waste, and any substance, product, waste, or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to Laws and Regulations regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.
  12. *Contract*—The entire and integrated written contract between Owner and Contractor concerning the Work.
  13. *Contract Documents*—Those items so designated in the Agreement, and which together comprise the Contract.
  14. *Contract Price*—The money that Owner has agreed to pay Contractor for completion of the Work in accordance with the Contract Documents.
  15. *Contract Times*—The number of days or the dates by which Contractor shall: (a) achieve Milestones, if any; (b) achieve Substantial Completion; and (c) complete the Work.
  16. *Contractor*—The individual or entity with which Owner has contracted for performance of the Work.
  17. *Cost of the Work*—See Paragraph 13.01 for definition.
  18. *Drawings*—The part of the Contract that graphically shows the scope, extent, and character of the Work to be performed by Contractor.
  19. *Effective Date of the Contract*—The date, indicated in the Agreement, on which the Contract becomes effective.
  20. *Electronic Document*—Any Project-related correspondence, attachments to correspondence, data, documents, drawings, information, or graphics, including but not limited to Shop Drawings and other Submittals, that are in an electronic or digital format.
  21. *Electronic Means*—Electronic mail (email), upload/download from a secure Project website, or other communications methods that allow: (a) the transmission or communication of Electronic Documents; (b) the documentation of transmissions, including sending and receipt; (c) printing of the transmitted Electronic Document by the

recipient; (d) the storage and archiving of the Electronic Document by sender and recipient; and (e) the use by recipient of the Electronic Document for purposes permitted by this Contract. Electronic Means does not include the use of text messaging, or of Facebook, Twitter, Instagram, or similar social media services for transmission of Electronic Documents.

22. *Engineer*—The individual or entity named as such in the Agreement.
23. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but does not change the Contract Price or the Contract Times.
24. *Hazardous Environmental Condition*—The presence at the Site of Constituents of Concern in such quantities or circumstances that may present a danger to persons or property exposed thereto.
  - a. The presence at the Site of materials that are necessary for the execution of the Work, or that are to be incorporated into the Work, and that are controlled and contained pursuant to industry practices, Laws and Regulations, and the requirements of the Contract, is not a Hazardous Environmental Condition.
  - b. The presence of Constituents of Concern that are to be removed or remediated as part of the Work is not a Hazardous Environmental Condition.
  - c. The presence of Constituents of Concern as part of the routine, anticipated, and obvious working conditions at the Site, is not a Hazardous Environmental Condition.
25. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, statutes, rules, regulations, ordinances, codes, and binding decrees, resolutions, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
26. *Liens*—Charges, security interests, or encumbrances upon Contract-related funds, real property, or personal property.
27. *Milestone*—A principal event in the performance of the Work that the Contract requires Contractor to achieve by an intermediate completion date, or by a time prior to Substantial Completion of all the Work.
28. *Notice of Award*—The written notice by Owner to a Bidder of Owner's acceptance of the Bid.
29. *Notice to Proceed*—A written notice by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work.
30. *Owner*—The individual or entity with which Contractor has contracted regarding the Work, and which has agreed to pay Contractor for the performance of the Work, pursuant to the terms of the Contract.
31. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising Contractor's plan to accomplish the Work within the Contract Times.
32. *Project*—The total undertaking to be accomplished for Owner by engineers, contractors, and others, including planning, study, design, construction, testing, commissioning, and start-up, and of which the Work to be performed under the Contract Documents is a part.

33. *Resident Project Representative*—The authorized representative of Engineer assigned to assist Engineer at the Site. As used herein, the term Resident Project Representative (RPR) includes any assistants or field staff of Resident Project Representative.
34. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and that establish the standards by which such portion of the Work will be judged.
35. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements for Engineer’s review of the submittals.
36. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor’s Applications for Payment.
37. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information that are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work. Shop Drawings, whether approved or not, are not Drawings and are not Contract Documents.
38. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements, and such other lands or areas furnished by Owner which are designated for the use of Contractor.
39. *Specifications*—The part of the Contract that consists of written requirements for materials, equipment, systems, standards, and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable to the Work.
40. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work.
41. *Submittal*—A written or graphic document, prepared by or for Contractor, which the Contract Documents require Contractor to submit to Engineer, or that is indicated as a Submittal in the Schedule of Submittals accepted by Engineer. Submittals may include Shop Drawings and Samples; schedules; product data; Owner-delegated designs; sustainable design information; information on special procedures; testing plans; results of tests and evaluations, source quality-control testing and inspections, and field or Site quality-control testing and inspections; warranties and certifications; Suppliers’ instructions and reports; records of delivery of spare parts and tools; operations and maintenance data; Project photographic documentation; record documents; and other such documents required by the Contract Documents. Submittals, whether or not approved or accepted by Engineer, are not Contract Documents. Change Proposals, Change Orders, Claims, notices, Applications for Payment, and requests for interpretation or clarification are not Submittals.
42. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms “substantially complete” and “substantially completed” as applied to all or part of the Work refer to Substantial Completion of such Work.

43. *Successful Bidder*—The Bidder to which the Owner makes an award of contract.
44. *Supplementary Conditions*—The part of the Contract that amends or supplements these General Conditions.
45. *Supplier*—A manufacturer, fabricator, supplier, distributor, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or a Subcontractor.
46. *Technical Data*
- a. Those items expressly identified as Technical Data in the Supplementary Conditions, with respect to either (1) existing subsurface conditions at or adjacent to the Site, or existing physical conditions at or adjacent to the Site including existing surface or subsurface structures (except Underground Facilities) or (2) Hazardous Environmental Conditions at the Site.
  - b. If no such express identifications of Technical Data have been made with respect to conditions at the Site, then Technical Data is defined, with respect to conditions at the Site under Paragraphs 5.03, 5.04, and 5.06, as the data contained in boring logs, recorded measurements of subsurface water levels, assessments of the condition of subsurface facilities, laboratory test results, and other factual, objective information regarding conditions at the Site that are set forth in any geotechnical, environmental, or other Site or facilities conditions report prepared for the Project and made available to Contractor.
  - c. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data, and instead Underground Facilities are shown or indicated on the Drawings.
47. *Underground Facilities*—All active or not-in-service underground lines, pipelines, conduits, ducts, encasements, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or systems at the Site, including but not limited to those facilities or systems that produce, transmit, distribute, or convey telephone or other communications, cable television, fiber optic transmissions, power, electricity, light, heat, gases, oil, crude oil products, liquid petroleum products, water, steam, waste, wastewater, storm water, other liquids or chemicals, or traffic or other control systems. An abandoned facility or system is not an Underground Facility.
48. *Unit Price Work*—Work to be paid for on the basis of unit prices.
49. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction; furnishing, installing, and incorporating all materials and equipment into such construction; and may include related services such as testing, start-up, and commissioning, all as required by the Contract Documents.
50. *Work Change Directive*—A written directive to Contractor issued on or after the Effective Date of the Contract, signed by Owner and recommended by Engineer, ordering an addition, deletion, or revision in the Work.

## 1.02 Terminology

- A. The words and terms discussed in Paragraphs 1.02.B, C, D, and E are not defined terms that require initial capital letters, but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.
- B. *Intent of Certain Terms or Adjectives:* The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed” or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Article 10 or any other provision of the Contract Documents.
- C. *Day:* The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.
- D. *Defective:* The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
  - 1. does not conform to the Contract Documents;
  - 2. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or
  - 3. has been damaged prior to Engineer’s recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 15.03 or Paragraph 15.04).
- E. *Furnish, Install, Perform, Provide*
  - 1. The word “furnish,” when used in connection with services, materials, or equipment, means to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.
  - 2. The word “install,” when used in connection with services, materials, or equipment, means to put into use or place in final position said services, materials, or equipment complete and ready for intended use.
  - 3. The words “perform” or “provide,” when used in connection with services, materials, or equipment, means to furnish and install said services, materials, or equipment complete and ready for intended use.
  - 4. If the Contract Documents establish an obligation of Contractor with respect to specific services, materials, or equipment, but do not expressly use any of the four words “furnish,” “install,” “perform,” or “provide,” then Contractor shall furnish and install said services, materials, or equipment complete and ready for intended use.

- F. *Contract Price or Contract Times*: References to a change in “Contract Price or Contract Times” or “Contract Times or Contract Price” or similar, indicate that such change applies to (1) Contract Price, (2) Contract Times, or (3) both Contract Price and Contract Times, as warranted, even if the term “or both” is not expressed.
- G. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

## ARTICLE 2—PRELIMINARY MATTERS

### 2.01 *Delivery of Performance and Payment Bonds; Evidence of Insurance*

- A. *Performance and Payment Bonds*: When Contractor delivers the signed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner the performance bond and payment bond (if the Contract requires Contractor to furnish such bonds).
- B. *Evidence of Contractor’s Insurance*: When Contractor delivers the signed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner, with copies to each additional insured (as identified in the Contract), the certificates, endorsements, and other evidence of insurance required to be provided by Contractor in accordance with Article 6, except to the extent the Supplementary Conditions expressly establish other dates for delivery of specific insurance policies.
- C. *Evidence of Owner’s Insurance*: After receipt of the signed counterparts of the Agreement and all required bonds and insurance documentation, Owner shall promptly deliver to Contractor, with copies to each additional insured (as identified in the Contract), the certificates and other evidence of insurance required to be provided by Owner under Article 6.

### 2.02 *Copies of Documents*

- A. Owner shall furnish to Contractor four printed copies of the Contract (including one fully signed counterpart of the Agreement), and one copy in electronic portable document format (PDF). Additional printed copies will be furnished upon request at the cost of reproduction.
- B. Owner shall maintain and safeguard at least one original printed record version of the Contract, including Drawings and Specifications signed and sealed by Engineer and other design professionals. Owner shall make such original printed record version of the Contract available to Contractor for review. Owner may delegate the responsibilities under this provision to Engineer.

### 2.03 *Before Starting Construction*

- A. *Preliminary Schedules*: Within 10 days after the Effective Date of the Contract (or as otherwise required by the Contract Documents), Contractor shall submit to Engineer for timely review:
  - 1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract;
  - 2. a preliminary Schedule of Submittals; and
  - 3. a preliminary 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 of overhead and profit applicable to each item of Work.

**2.04**    *Preconstruction Conference; Designation of Authorized Representatives*

- A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work, and to discuss the schedules referred to in Paragraph 2.03.A, procedures for handling Shop Drawings, Samples, and other Submittals, processing Applications for Payment, electronic or digital transmittals, and maintaining required records.
- B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit and receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

**2.05**    *Acceptance of Schedules*

- A. At least 10 days before submission of the first Application for Payment a conference, attended by Contractor, Engineer, and others as appropriate, will be held to review the schedules submitted in accordance with Paragraph 2.03.A. No progress payment will be made to Contractor until acceptable schedules are submitted to Engineer.
  - 1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.
  - 2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.
  - 3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to the component parts of the Work.
  - 4. If a schedule is not acceptable, Contractor will have an additional 10 days to revise and resubmit the schedule.

**2.06**    *Electronic Transmittals*

- A. Except as otherwise stated elsewhere in the Contract, the Owner, Engineer, and Contractor may send, and shall accept, Electronic Documents transmitted by Electronic Means.
- B. If the Contract does not establish protocols for Electronic Means, then Owner, Engineer, and Contractor shall jointly develop such protocols.
- C. Subject to any governing protocols for Electronic Means, when transmitting Electronic Documents by Electronic Means, the transmitting party makes no representations as to long-term compatibility, usability, or readability of the Electronic Documents resulting from the recipient's use of software application packages, operating systems, or computer hardware differing from those used in the drafting or transmittal of the Electronic Documents.



## ARTICLE 3—CONTRACT DOCUMENTS: INTENT, REQUIREMENTS, REUSE

### 3.01 *Intent*

- A. The Contract Documents are complementary; what is required by one Contract Document is as binding as if required by all.
- B. It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents.
- C. Unless otherwise stated in the Contract Documents, if there is a discrepancy between the electronic versions of the Contract Documents (including any printed copies derived from such electronic versions) and the printed record version, the printed record version will govern.
- D. The Contract supersedes prior negotiations, representations, and agreements, whether written or oral.
- E. Engineer will issue clarifications and interpretations of the Contract Documents as provided herein.
- F. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation will be deemed stricken, and all remaining provisions will continue to be valid and binding upon Owner and Contractor, which agree that the Contract Documents will 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.
- G. Nothing in the Contract Documents creates:
  - 1. any contractual relationship between Owner or Engineer and any Subcontractor, Supplier, or other individual or entity performing or furnishing any of the Work, for the benefit of such Subcontractor, Supplier, or other individual or entity; or
  - 2. any obligation on the part of Owner or Engineer to pay or to see to the payment of any money due any such Subcontractor, Supplier, or other individual or entity, except as may otherwise be required by Laws and Regulations.

### 3.02 *Reference Standards*

- A. *Standards Specifications, Codes, Laws and Regulations*
  - 1. Reference in the Contract Documents to standard specifications, manuals, reference standards, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, means the standard specification, manual, reference standard, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Contract if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.
  - 2. No provision of any such standard specification, manual, reference standard, or code, and no instruction of a Supplier, will be effective to change the duties or responsibilities of Owner, Contractor, or Engineer from those set forth in the part of the Contract Documents prepared by or for Engineer. No such provision or instruction shall be effective to assign to Owner or Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility

inconsistent with the provisions of the part of the Contract Documents prepared by or for Engineer.

### 3.03 *Reporting and Resolving Discrepancies*

#### A. *Reporting Discrepancies*

1. *Contractor's Verification of Figures and Field Measurements:* Before undertaking each part of the Work, Contractor shall carefully study the Contract Documents, and check and verify pertinent figures and dimensions therein, particularly with respect to applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy that Contractor discovers, or has actual knowledge of, and shall not proceed with any Work affected thereby until the conflict, error, ambiguity, or discrepancy is resolved by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract issued pursuant to Paragraph 11.01.
2. *Contractor's Review of Contract Documents:* If, before or during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) actual field conditions, (c) any standard specification, manual, reference standard, or code, or (d) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 7.15) until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract issued pursuant to Paragraph 11.01.
3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

#### B. *Resolving Discrepancies*

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the part of the Contract Documents prepared by or for Engineer take precedence in resolving any conflict, error, ambiguity, or discrepancy between such provisions of the Contract Documents and:
  - a. the provisions of any standard specification, manual, reference standard, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference as a Contract Document); or
  - b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

### 3.04 *Requirements of the Contract Documents*

- A. During the performance of the Work and until final payment, Contractor and Owner shall submit to the Engineer in writing all matters in question concerning the requirements of the Contract Documents (sometimes referred to as requests for information or interpretation—RFIs), or relating to the acceptability of the Work under the Contract Documents, as soon as possible after such matters arise. Engineer will be the initial interpreter of the requirements of the Contract Documents, and judge of the acceptability of the Work.

- B. Engineer will, with reasonable promptness, render a written clarification, interpretation, or decision on the issue submitted, or initiate an amendment or supplement to the Contract Documents. Engineer's written clarification, interpretation, or decision will be final and binding on Contractor, unless it appeals by submitting a Change Proposal, and on Owner, unless it appeals by filing a Claim.
- C. If a submitted matter in question concerns terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work under the Contract Documents, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, then Engineer will promptly notify Owner and Contractor in writing that Engineer is unable to provide a decision or interpretation. If Owner and Contractor are unable to agree on resolution of such a matter in question, either party may pursue resolution as provided in Article 12.

### 3.05 *Reuse of Documents*

- A. Contractor and its Subcontractors and Suppliers shall not:
  - 1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media versions, or reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer; or
  - 2. have or acquire any title or ownership rights in any other Contract Documents, reuse any such Contract Documents for any purpose without Owner's express written consent, or violate any copyrights pertaining to such Contract Documents.
- B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein precludes Contractor from retaining copies of the Contract Documents for record purposes.

## **ARTICLE 4—COMMENCEMENT AND PROGRESS OF THE WORK**

### 4.01 *Commencement of Contract Times; Notice to Proceed*

- A. The Contract Times will commence to run on the 30th day after the Effective Date of the Contract or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Contract. In no event will the Contract Times commence to run later than the 60th day after the day of Bid opening or the 30th day after the Effective Date of the Contract, whichever date is earlier.

### 4.02 *Starting the Work*

- A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work may be done at the Site prior to such date.

### 4.03 *Reference Points*

- A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the

established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

#### 4.04 *Progress Schedule*

- A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.05 as it may be adjusted from time to time as provided below.
  - 1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.05) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times.
  - 2. Proposed adjustments in the Progress Schedule that will change the Contract Times must be submitted in accordance with the requirements of Article 11.
- B. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work will be delayed or postponed pending resolution of any disputes or disagreements, or during any appeal process, except as permitted by Paragraph 16.04, or as Owner and Contractor may otherwise agree in writing.

#### 4.05 *Delays in Contractor's Progress*

- A. If Owner, Engineer, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times.
- B. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor. Delay, disruption, and interference attributable to and within the control of a Subcontractor or Supplier shall be deemed to be within the control of Contractor.
- C. If Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor shall be entitled to an equitable adjustment in Contract Times. Such an adjustment will be Contractor's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include but are not limited to the following:
  - 1. Severe and unavoidable natural catastrophes such as fires, floods, epidemics, and earthquakes;
  - 2. Abnormal weather conditions;
  - 3. Acts or failures to act of third-party utility owners or other third-party entities (other than those third-party utility owners or other third-party entities performing other work at or adjacent to the Site as arranged by or under contract with Owner, as contemplated in Article 8); and
  - 4. Acts of war or terrorism.

- D. Contractor's entitlement to an adjustment of Contract Times or Contract Price is limited as follows:
1. Contractor's entitlement to an adjustment of the Contract Times is conditioned on the delay, disruption, or interference adversely affecting an activity on the critical path to completion of the Work, as of the time of the delay, disruption, or interference.
  2. Contractor shall not be entitled to an adjustment in Contract Price for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor. Such a concurrent delay by Contractor shall not preclude an adjustment of Contract Times to which Contractor is otherwise entitled.
  3. Adjustments of Contract Times or Contract Price are subject to the provisions of Article 11.
- E. Each Contractor request or Change Proposal seeking an increase in Contract Times or Contract Price must be supplemented by supporting data that sets forth in detail the following:
1. The circumstances that form the basis for the requested adjustment;
  2. The date upon which each cause of delay, disruption, or interference began to affect the progress of the Work;
  3. The date upon which each cause of delay, disruption, or interference ceased to affect the progress of the Work;
  4. The number of days' increase in Contract Times claimed as a consequence of each such cause of delay, disruption, or interference; and
  5. The impact on Contract Price, in accordance with the provisions of Paragraph 11.07.
- Contractor shall also furnish such additional supporting documentation as Owner or Engineer may require including, where appropriate, a revised progress schedule indicating all the activities affected by the delay, disruption, or interference, and an explanation of the effect of the delay, disruption, or interference on the critical path to completion of the Work.
- F. Delays, disruption, and interference to the performance or progress of the Work resulting from the existence of a differing subsurface or physical condition, an Underground Facility that was not shown or indicated by the Contract Documents, or not shown or indicated with reasonable accuracy, and those resulting from Hazardous Environmental Conditions, are governed by Article 5, together with the provisions of Paragraphs 4.05.D and 4.05.E.
- G. Paragraph 8.03 addresses delays, disruption, and interference to the performance or progress of the Work resulting from the performance of certain other work at or adjacent to the Site.

## **ARTICLE 5—SITE; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS**

### **5.01 *Availability of Lands***

- A. Owner shall furnish the Site. Owner shall notify Contractor in writing of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work.

- B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which permanent improvements are to be made and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.
- C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

## 5.02 *Use of Site and Other Areas*

### A. *Limitation on Use of Site and Other Areas*

1. Contractor shall confine construction equipment, temporary construction facilities, the storage of materials and equipment, and the operations of workers to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and such other adjacent areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for (a) damage to the Site; (b) damage to any such other adjacent areas used for Contractor's operations; (c) damage to any other adjacent land or areas, or to improvements, structures, utilities, or similar facilities located at such adjacent lands or areas; and (d) for injuries and losses sustained by the owners or occupants of any such land or areas; provided that such damage or injuries result from the performance of the Work or from other actions or conduct of the Contractor or those for which Contractor is responsible.
  2. If a damage or injury claim is made by the owner or occupant of any such land or area because of the performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible, Contractor shall (a) take immediate corrective or remedial action as required by Paragraph 7.13, or otherwise; (b) promptly attempt to settle the claim as to all parties through negotiations with such owner or occupant, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or in a court of competent jurisdiction; and (c) to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from and against any such claim, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused directly or indirectly, in whole or in part by, or based upon, Contractor's performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible.
- B. *Removal of Debris During Performance of the Work:* During the progress of the Work the Contractor shall keep the Site and other adjacent areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris will conform to applicable Laws and Regulations.
  - C. *Cleaning:* Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site and adjacent areas all tools, appliances, construction equipment

and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

- D. *Loading of Structures:* Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent structures or land to stresses or pressures that will endanger them.

### 5.03 *Subsurface and Physical Conditions*

- A. *Reports and Drawings:* The Supplementary Conditions identify:

1. Those reports of explorations and tests of subsurface conditions at or adjacent to the Site that contain Technical Data;
2. Those drawings of existing physical conditions at or adjacent to the Site, including those drawings depicting existing surface or subsurface structures at or adjacent to the Site (except Underground Facilities), that contain Technical Data; and
3. Technical Data contained in such reports and drawings.

- B. *Underground Facilities:* Underground Facilities are shown or indicated on the Drawings, pursuant to Paragraph 5.05, and not in the drawings referred to in Paragraph 5.03.A. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data.

- C. *Reliance by Contractor on Technical Data:* Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely upon the accuracy of the Technical Data as defined in Paragraph 1.01.A.46.b.

- D. *Limitations of Other Data and Documents:* Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:
1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto;
  2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings;
  3. the contents of other Site-related documents made available to Contractor, such as record drawings from other projects at or adjacent to the Site, or Owner's archival documents concerning the Site; or
  4. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions, or information.

#### 5.04 *Differing Subsurface or Physical Conditions*

- A. *Notice by Contractor:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed at the Site:
1. is of such a nature as to establish that any Technical Data on which Contractor is entitled to rely as provided in Paragraph 5.03 is materially inaccurate;
  2. is of such a nature as to require a change in the Drawings or Specifications;
  3. differs materially from that shown or indicated in the Contract Documents; or
  4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except with respect to an emergency) until receipt of a written statement permitting Contractor to do so.

- B. *Engineer's Review:* After receipt of written notice as required by the preceding paragraph, Engineer will promptly review the subsurface or physical condition in question; determine whether it is necessary for Owner to obtain additional exploration or tests with respect to the condition; conclude whether the condition falls within any one or more of the differing site condition categories in Paragraph 5.04.A; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or Specifications; and advise Owner in writing of Engineer's findings, conclusions, and recommendations.
- C. *Owner's Statement to Contractor Regarding Site Condition:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the subsurface or physical condition in question, addressing the resumption of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.
- D. *Early Resumption of Work:* If at any time Engineer determines that Work in connection with the subsurface or physical condition in question may resume prior to completion of Engineer's review or Owner's issuance of its statement to Contractor, because the condition in question has been adequately documented, and analyzed on a preliminary basis, then the Engineer may at its discretion instruct Contractor to resume such Work.
- E. *Possible Price and Times Adjustments*
1. Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times, to the extent that the existence of a differing subsurface or physical condition, or any related delay, disruption, or interference, causes an increase or decrease in



Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

- a. Such condition must fall within any one or more of the categories described in Paragraph 5.04.A;
  - b. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03; and,
  - c. Contractor's entitlement to an adjustment of the Contract Times is subject to the provisions of Paragraphs 4.05.D and 4.05.E.
2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times with respect to a subsurface or physical condition if:
    - a. Contractor knew of the existence of such condition at the time Contractor made a commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract, or otherwise;
    - b. The existence of such condition reasonably could have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas expressly required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such commitment; or
    - c. Contractor failed to give the written notice required by Paragraph 5.04.A.
  3. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, then any such adjustment will be set forth in a Change Order.
  4. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the subsurface or physical condition in question.
- F. *Underground Facilities; Hazardous Environmental Conditions:* Paragraph 5.05 governs rights and responsibilities regarding the presence or location of Underground Facilities. Paragraph 5.06 governs rights and responsibilities regarding Hazardous Environmental Conditions. The provisions of Paragraphs 5.03 and 5.04 are not applicable to the presence or location of Underground Facilities, or to Hazardous Environmental Conditions.

#### 5.05 *Underground Facilities*

- A. *Contractor's Responsibilities:* Unless it is otherwise expressly provided in the Supplementary Conditions, the cost of all of the following are included in the Contract Price, and Contractor shall have full responsibility for:
1. reviewing and checking all information and data regarding existing Underground Facilities at the Site;
  2. complying with applicable state and local utility damage prevention Laws and Regulations;

3. verifying the actual location of those Underground Facilities shown or indicated in the Contract Documents as being within the area affected by the Work, by exposing such Underground Facilities during the course of construction;
  4. coordination of the Work with the owners (including Owner) of such Underground Facilities, during construction; and
  5. the safety and protection of all existing Underground Facilities at the Site, and repairing any damage thereto resulting from the Work.
- B. *Notice by Contractor:* If Contractor believes that an Underground Facility that is uncovered or revealed at the Site was not shown or indicated on the Drawings, or was not shown or indicated on the Drawings with reasonable accuracy, then Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing regarding such Underground Facility.
- C. *Engineer's Review:* Engineer will:
1. promptly review the Underground Facility and conclude whether such Underground Facility was not shown or indicated on the Drawings, or was not shown or indicated with reasonable accuracy;
  2. identify and communicate with the owner of the Underground Facility; prepare recommendations to Owner (and if necessary issue any preliminary instructions to Contractor) regarding the Contractor's resumption of Work in connection with the Underground Facility in question;
  3. obtain any pertinent cost or schedule information from Contractor; determine the extent, if any, to which a change is required in the Drawings or Specifications to reflect and document the consequences of the existence or location of the Underground Facility; and
  4. advise Owner in writing of Engineer's findings, conclusions, and recommendations.
- During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.
- D. *Owner's Statement to Contractor Regarding Underground Facility:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the Underground Facility in question addressing the resumption of Work in connection with such Underground Facility, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations in whole or in part.
- E. *Early Resumption of Work:* If at any time Engineer determines that Work in connection with the Underground Facility may resume prior to completion of Engineer's review or Owner's issuance of its statement to Contractor, because the Underground Facility in question and conditions affected by its presence have been adequately documented, and analyzed on a preliminary basis, then the Engineer may at its discretion instruct Contractor to resume such Work.
- F. *Possible Price and Times Adjustments*
1. Contractor shall be entitled to an equitable adjustment in the Contract Price or Contract Times, to the extent that any existing Underground Facility at the Site that was not shown

or indicated on the Drawings, or was not shown or indicated with reasonable accuracy, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

- a. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03;
  - b. Contractor's entitlement to an adjustment of the Contract Times is subject to the provisions of Paragraphs 4.05.D and 4.05.E; and
  - c. Contractor gave the notice required in Paragraph 5.05.B.
2. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, then any such adjustment will be set forth in a Change Order.
  3. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the Underground Facility in question.
  4. The information and data shown or indicated on the Drawings with respect to existing Underground Facilities at the Site is based on information and data (a) furnished by the owners of such Underground Facilities, or by others, (b) obtained from available records, or (c) gathered in an investigation conducted in accordance with the current edition of ASCE 38, Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data, by the American Society of Civil Engineers. If such information or data is incorrect or incomplete, Contractor's remedies are limited to those set forth in this Paragraph 5.05.F.

#### 5.06 *Hazardous Environmental Conditions at Site*

A. *Reports and Drawings:* The Supplementary Conditions identify:

1. those reports known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site;
2. drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site; and
3. Technical Data contained in such reports and drawings.

B. *Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely on the accuracy of the Technical Data as defined in Paragraph 1.01.A.46.b. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures

- of construction to be employed by Contractor, and safety precautions and programs incident thereto;
2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
  3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions or information.
- C. Contractor shall not be responsible for removing or remediating any Hazardous Environmental Condition encountered, uncovered, or revealed at the Site unless such removal or remediation is expressly identified in the Contract Documents to be within the scope of the Work.
- D. Contractor shall be responsible for controlling, containing, and duly removing all Constituents of Concern brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible, and for any associated costs; and for the costs of removing and remediating any Hazardous Environmental Condition created by the presence of any such Constituents of Concern.
- E. If Contractor encounters, uncovers, or reveals a Hazardous Environmental Condition whose removal or remediation is not expressly identified in the Contract Documents as being within the scope of the Work, or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, then Contractor shall immediately: (1) secure or otherwise isolate such condition; (2) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 7.15); and (3) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 5.06.F. If Contractor or anyone for whom Contractor is responsible created the Hazardous Environmental Condition in question, then Owner may remove and remediate the Hazardous Environmental Condition, and impose a set-off against payments to account for the associated costs.
- F. Contractor shall not resume Work in connection with such Hazardous Environmental Condition or in any affected area until after Owner has obtained any required permits related thereto, and delivered written notice to Contractor either (1) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (2) specifying any special conditions under which such Work may be resumed safely.
- G. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, as a result of such Work stoppage, such special conditions under which Work is agreed to be resumed by Contractor, or any costs or expenses incurred in response to the Hazardous Environmental Condition, then within 30 days of Owner's written notice regarding the resumption of Work, Contractor may submit a Change Proposal, or Owner may impose a set-off. Entitlement to any such adjustment is subject to the provisions of Paragraphs 4.05.D, 4.05.E, 11.07, and 11.08.
- H. If, after receipt of such written notice, Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special

conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work, following the contractual change procedures in Article 11. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 8.

- I. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court, arbitration, or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition (1) was not shown or indicated in the Drawings, Specifications, or other Contract Documents, identified as Technical Data entitled to limited reliance pursuant to Paragraph 5.06.B, or identified in the Contract Documents to be included within the scope of the Work, and (2) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.I obligates Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- J. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the failure to control, contain, or remove a Constituent of Concern brought to the Site by Contractor or by anyone for whom Contractor is responsible, or to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.J obligates Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- K. The provisions of Paragraphs 5.03, 5.04, and 5.05 do not apply to the presence of Constituents of Concern or to a Hazardous Environmental Condition uncovered or revealed at the Site.

## **ARTICLE 6—BONDS AND INSURANCE**

### **6.01 *Performance, Payment, and Other Bonds***

- A. Contractor shall furnish a performance bond and a payment bond, each in an amount at least equal to the Contract Price, as security for the faithful performance and payment of Contractor's obligations under the Contract. These bonds must remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 15.08, whichever is later, except as provided otherwise by Laws or Regulations, the terms of a prescribed bond form, the Supplementary Conditions, or other provisions of the Contract.
- B. Contractor shall also furnish such other bonds (if any) as are required by the Supplementary Conditions or other provisions of the Contract.
- C. All bonds must be in the form included in the Bidding Documents or otherwise specified by Owner prior to execution of the Contract, except as provided otherwise by Laws or

Regulations, and must be issued and signed by a surety named in “Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies” as published in Department Circular 570 (as amended and supplemented) by the Bureau of the Fiscal Service, U.S. Department of the Treasury. A bond signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual’s authority to bind the surety. The evidence of authority must show that it is effective on the date the agent or attorney-in-fact signed the accompanying bond.

- D. Contractor shall obtain the required bonds from surety companies that are duly licensed or authorized, in the state or jurisdiction in which the Project is located, to issue bonds in the required amounts.
- E. If the surety on a bond furnished by Contractor is declared bankrupt or becomes insolvent, or the surety ceases to meet the requirements above, then Contractor shall promptly notify Owner and Engineer in writing and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which must comply with the bond and surety requirements above.
- F. If Contractor has failed to obtain a required bond, Owner may exclude the Contractor from the Site and exercise Owner’s termination rights under Article 16.
- G. Upon request to Owner from any Subcontractor, Supplier, or other person or entity claiming to have furnished labor, services, materials, or equipment used in the performance of the Work, Owner shall provide a copy of the payment bond to such person or entity.
- H. Upon request to Contractor from any Subcontractor, Supplier, or other person or entity claiming to have furnished labor, services, materials, or equipment used in the performance of the Work, Contractor shall provide a copy of the payment bond to such person or entity.

#### 6.02 *Insurance—General Provisions*

- A. Owner and Contractor shall obtain and maintain insurance as required in this article and in the Supplementary Conditions.
- B. All insurance required by the Contract to be purchased and maintained by Owner or Contractor shall be obtained from insurance companies that are duly licensed or authorized in the state or jurisdiction in which the Project is located to issue insurance policies for the required limits and coverages. Unless a different standard is indicated in the Supplementary Conditions, all companies that provide insurance policies required under this Contract shall have an A.M. Best rating of A-VII or better.
- C. Alternative forms of insurance coverage, including but not limited to self-insurance and “Occupational Accident and Excess Employer’s Indemnity Policies,” are not sufficient to meet the insurance requirements of this Contract, unless expressly allowed in the Supplementary Conditions.
- D. Contractor shall deliver to Owner, with copies to each additional insured identified in the Contract, certificates of insurance and endorsements establishing that Contractor has obtained and is maintaining the policies and coverages required by the Contract. Upon request by Owner or any other insured, Contractor shall also furnish other evidence of such required insurance, including but not limited to copies of policies, documentation of applicable self-insured retentions (if allowed) and deductibles, full disclosure of all relevant exclusions, and evidence of insurance required to be purchased and maintained by

Subcontractors or Suppliers. In any documentation furnished under this provision, Contractor, Subcontractors, and Suppliers may block out (redact) (1) any confidential premium or pricing information and (2) any wording specific to a project or jurisdiction other than those applicable to this Contract.

- E. Owner shall deliver to Contractor, with copies to each additional insured identified in the Contract, certificates of insurance and endorsements establishing that Owner has obtained and is maintaining the policies and coverages required of Owner by the Contract (if any). Upon request by Contractor or any other insured, Owner shall also provide other evidence of such required insurance (if any), including but not limited to copies of policies, documentation of applicable self-insured retentions (if allowed) and deductibles, and full disclosure of all relevant exclusions. In any documentation furnished under this provision, Owner may block out (redact) (1) any confidential premium or pricing information and (2) any wording specific to a project or jurisdiction other than those relevant to this Contract.
- F. Failure of Owner or Contractor to demand such certificates or other evidence of the other party's full compliance with these insurance requirements, or failure of Owner or Contractor to identify a deficiency in compliance from the evidence provided, will not be construed as a waiver of the other party's obligation to obtain and maintain such insurance.
- G. In addition to the liability insurance required to be provided by Contractor, the Owner, at Owner's option, may purchase and maintain Owner's own liability insurance. Owner's liability policies, if any, operate separately and independently from policies required to be provided by Contractor, and Contractor cannot rely upon Owner's liability policies for any of Contractor's obligations to the Owner, Engineer, or third parties.
- H. Contractor shall require:
  - 1. Subcontractors to purchase and maintain worker's compensation, commercial general liability, and other insurance that is appropriate for their participation in the Project, and to name as additional insureds Owner and Engineer (and any other individuals or entities identified in the Supplementary Conditions as additional insureds on Contractor's liability policies) on each Subcontractor's commercial general liability insurance policy; and
  - 2. Suppliers to purchase and maintain insurance that is appropriate for their participation in the Project.
- I. If either party does not purchase or maintain the insurance required of such party by the Contract, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage.
- J. If Contractor has failed to obtain and maintain required insurance, Contractor's entitlement to enter or remain at the Site will end immediately, and Owner may impose an appropriate set-off against payment for any associated costs (including but not limited to the cost of purchasing necessary insurance coverage), and exercise Owner's termination rights under Article 16.
- K. Without prejudice to any other right or remedy, if a party has failed to obtain required insurance, the other party may elect (but is in no way obligated) to obtain equivalent insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and the Contract Price will be adjusted accordingly.

- L. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor or Contractor's interests. Contractor is responsible for determining whether such coverage and limits are adequate to protect its interests, and for obtaining and maintaining any additional insurance that Contractor deems necessary.
- M. The insurance and insurance limits required herein will not be deemed as a limitation on Contractor's liability, or that of its Subcontractors or Suppliers, under the indemnities granted to Owner and other individuals and entities in the Contract or otherwise.
- N. All the policies of insurance required to be purchased and maintained under this Contract will contain a provision or endorsement that the coverage afforded will not be canceled, or renewal refused, until at least 10 days prior written notice has been given to the purchasing policyholder. Within three days of receipt of any such written notice, the purchasing policyholder shall provide a copy of the notice to each other insured and Engineer.

#### 6.03 *Contractor's Insurance*

- A. *Required Insurance:* Contractor shall purchase and maintain Worker's Compensation, Commercial General Liability, and other insurance pursuant to the specific requirements of the Supplementary Conditions.
- B. *General Provisions:* The policies of insurance required by this Paragraph 6.03 as supplemented must:
  - 1. include at least the specific coverages required;
  - 2. be written for not less than the limits provided, or those required by Laws or Regulations, whichever is greater;
  - 3. remain in effect at least until the Work is complete (as set forth in Paragraph 15.06.D), and longer if expressly required elsewhere in this Contract, and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work as a warranty or correction obligation, or otherwise, or returning to the Site to conduct other tasks arising from the Contract;
  - 4. apply with respect to the performance of the Work, whether such performance is by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable; and
  - 5. include all necessary endorsements to support the stated requirements.
- C. *Additional Insureds:* The Contractor's commercial general liability, automobile liability, employer's liability, umbrella or excess, pollution liability, and unmanned aerial vehicle liability policies, if required by this Contract, must:
  - 1. include and list as additional insureds Owner and Engineer, and any individuals or entities identified as additional insureds in the Supplementary Conditions;
  - 2. include coverage for the respective officers, directors, members, partners, employees, and consultants of all such additional insureds;
  - 3. afford primary coverage to these additional insureds for all claims covered thereby (including as applicable those arising from both ongoing and completed operations);



4. not seek contribution from insurance maintained by the additional insured; and
5. as to commercial general liability insurance, apply to additional insureds with respect to liability caused in whole or in part by Contractor's acts or omissions, or the acts and omissions of those working on Contractor's behalf, in the performance of Contractor's operations.

#### 6.04 *Builder's Risk and Other Property Insurance*

- A. *Builder's Risk*: Unless otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain builder's risk insurance upon the Work on a completed value basis, in the amount of the Work's full insurable replacement cost (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). The specific requirements applicable to the builder's risk insurance are set forth in the Supplementary Conditions.
- B. *Property Insurance for Facilities of Owner Where Work Will Occur*: Owner is responsible for obtaining and maintaining property insurance covering each existing structure, building, or facility in which any part of the Work will occur, or to which any part of the Work will attach or be adjoined. Such property insurance will be written on a special perils (all-risk) form, on a replacement cost basis, providing coverage consistent with that required for the builder's risk insurance, and will be maintained until the Work is complete, as set forth in Paragraph 15.06.D.
- C. *Property Insurance for Substantially Complete Facilities*: Promptly after Substantial Completion, and before actual occupancy or use of the substantially completed Work, Owner will obtain property insurance for such substantially completed Work, and maintain such property insurance at least until the Work is complete, as set forth in Paragraph 15.06.D. Such property insurance will be written on a special perils (all-risk) form, on a replacement cost basis, and provide coverage consistent with that required for the builder's risk insurance. The builder's risk insurance may terminate upon written confirmation of Owner's procurement of such property insurance.
- D. *Partial Occupancy or Use by Owner*: If Owner will occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work, as provided in Paragraph 15.04, then Owner (directly, if it is the purchaser of the builder's risk policy, or through Contractor) will provide advance notice of such occupancy or use to the builder's risk insurer, and obtain an endorsement consenting to the continuation of coverage prior to commencing such partial occupancy or use.
- E. *Insurance of Other Property; Additional Insurance*: If the express insurance provisions of the Contract do not require or address the insurance of a property item or interest, then the entity or individual owning such property item will be responsible for insuring it. If Contractor elects to obtain other special insurance to be included in or supplement the builder's risk or property insurance policies provided under this Paragraph 6.04, it may do so at Contractor's expense.

#### 6.05 *Property Losses; Subrogation*

- A. The builder's risk insurance policy purchased and maintained in accordance with Paragraph 6.04 (or an installation floater policy if authorized by the Supplementary Conditions), will contain provisions to the effect that in the event of payment of any loss or damage the insurer will have no rights of recovery against any insureds thereunder, or against

Engineer or its consultants, or their officers, directors, members, partners, employees, agents, consultants, or subcontractors.

1. Owner and Contractor waive all rights against each other and the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from any of the perils, risks, or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Engineer, its consultants, all individuals or entities identified in the Supplementary Conditions as builder's risk or installation floater insureds, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, under such policies for losses and damages so caused.
  2. None of the above waivers extends to the rights that any party making such waiver may have to the proceeds of insurance held by Owner or Contractor as trustee or fiduciary, or otherwise payable under any policy so issued.
- B. Any property insurance policy maintained by Owner covering any loss, damage, or consequential loss to Owner's existing structures, buildings, or facilities in which any part of the Work will occur, or to which any part of the Work will attach or adjoin; to adjacent structures, buildings, or facilities of Owner; or to part or all of the completed or substantially completed Work, during partial occupancy or use pursuant to Paragraph 15.04, after Substantial Completion pursuant to Paragraph 15.03, or after final payment pursuant to Paragraph 15.06, will contain provisions to the effect that in the event of payment of any loss or damage the insurer will have no rights of recovery against any insureds thereunder, or against Contractor, Subcontractors, or Engineer, or the officers, directors, members, partners, employees, agents, consultants, or subcontractors of each and any of them, and that the insured is allowed to waive the insurer's rights of subrogation in a written contract executed prior to the loss, damage, or consequential loss.
1. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from fire or any of the perils, risks, or causes of loss covered by such policies.
- C. The waivers in this Paragraph 6.05 include the waiver of rights due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other insured peril, risk, or cause of loss.
- D. Contractor shall be responsible for assuring that each Subcontract contains provisions whereby the Subcontractor waives all rights against Owner, Contractor, all individuals or entities identified in the Supplementary Conditions as insureds, the Engineer and its consultants, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, relating to, or resulting from fire or other peril, risk, or cause of loss covered by builder's risk insurance, installation floater, and any other property insurance applicable to the Work.

6.06 *Receipt and Application of Property Insurance Proceeds*

- A. Any insured loss under the builder's risk and other policies of property insurance required by Paragraph 6.04 will be adjusted and settled with the named insured that purchased the policy. Such named insured shall act as fiduciary for the other insureds, and give notice to such other insureds that adjustment and settlement of a claim is in progress. Any other insured may state its position regarding a claim for insured loss in writing within 15 days after notice of such claim.
- B. Proceeds for such insured losses may be made payable by the insurer either jointly to multiple insureds, or to the named insured that purchased the policy in its own right and as fiduciary for other insureds, subject to the requirements of any applicable mortgage clause. A named insured receiving insurance proceeds under the builder's risk and other policies of insurance required by Paragraph 6.04 shall maintain such proceeds in a segregated account, and distribute such proceeds in accordance with such agreement as the parties in interest may reach, or as otherwise required under the dispute resolution provisions of this Contract or applicable Laws and Regulations.
- C. If no other special agreement is reached, Contractor shall repair or replace the damaged Work, using allocated insurance proceeds.

**ARTICLE 7—CONTRACTOR'S RESPONSIBILITIES**

7.01 *Contractor's Means and Methods of Construction*

- A. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction.
- B. If the Contract Documents note, or Contractor determines, that professional engineering or other design services are needed to carry out Contractor's responsibilities for construction means, methods, techniques, sequences, and procedures, or for Site safety, then Contractor shall cause such services to be provided by a properly licensed design professional, at Contractor's expense. Such services are not Owner-delegated professional design services under this Contract, and neither Owner nor Engineer has any responsibility with respect to (1) Contractor's determination of the need for such services, (2) the qualifications or licensing of the design professionals retained or employed by Contractor, (3) the performance of such services, or (4) any errors, omissions, or defects in such services.

7.02 *Supervision and Superintendence*

- A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents.
- B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who will not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

7.03 *Labor; Working Hours*

- A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall maintain good discipline and order at the Site.

- B. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of Contractor's employees; of Suppliers and Subcontractors, and their employees; and of any other individuals or entities performing or furnishing any of the Work, just as Contractor is responsible for Contractor's own acts and omissions.
- C. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site will be performed during regular working hours, Monday through Friday. Contractor will not perform Work on a Saturday, Sunday, or any legal holiday. Contractor may perform Work outside regular working hours or on Saturdays, Sundays, or legal holidays only with Owner's written consent, which will not be unreasonably withheld.

#### 7.04 *Services, Materials, and Equipment*

- A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start up, and completion of the Work, whether or not such items are specifically called for in the Contract Documents.
- B. All materials and equipment incorporated into the Work must be new and of good quality, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications will expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.
- C. All materials and equipment must be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

#### 7.05 *"Or Equals"*

- A. *Contractor's Request; Governing Criteria:* Whenever an item of equipment or material is specified or described in the Contract Documents by using the names of one or more proprietary items or specific Suppliers, the Contract Price has been based upon Contractor furnishing such item as specified. The specification or description of such an item is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or equal" item is permitted, Contractor may request that Engineer authorize the use of other items of equipment or material, or items from other proposed Suppliers, under the circumstances described below.
  - 1. If Engineer in its sole discretion determines that an item of equipment or material proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, Engineer will deem it an "or equal" item. For the purposes of this paragraph, a proposed item of equipment or material will be considered functionally equal to an item so named if:
    - a. in the exercise of reasonable judgment Engineer determines that the proposed item:
      - 1) is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;

- 2) will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole;
  - 3) has a proven record of performance and availability of responsive service; and
  - 4) is not objectionable to Owner.
- b. Contractor certifies that, if the proposed item is approved and incorporated into the Work:
- 1) there will be no increase in cost to the Owner or increase in Contract Times; and
  - 2) the item will conform substantially to the detailed requirements of the item named in the Contract Documents.
- B. *Contractor's Expense*: Contractor shall provide all data in support of any proposed "or equal" item at Contractor's expense.
- C. *Engineer's Evaluation and Determination*: Engineer will be allowed a reasonable time to evaluate each "or-equal" request. Engineer may require Contractor to furnish additional data about the proposed "or-equal" item. Engineer will be the sole judge of acceptability. No "or-equal" item will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an "or-equal," which will be evidenced by an approved Shop Drawing or other written communication. Engineer will advise Contractor in writing of any negative determination.
- D. *Effect of Engineer's Determination*: Neither approval nor denial of an "or-equal" request will result in any change in Contract Price. The Engineer's denial of an "or-equal" request will be final and binding, and may not be reversed through an appeal under any provision of the Contract.
- E. *Treatment as a Substitution Request*: If Engineer determines that an item of equipment or material proposed by Contractor does not qualify as an "or-equal" item, Contractor may request that Engineer consider the item a proposed substitute pursuant to Paragraph 7.06.

#### 7.06 Substitutes

- A. *Contractor's Request; Governing Criteria*: Unless the specification or description of an item of equipment or material required to be furnished under the Contract Documents contains or is followed by words reading that no substitution is permitted, Contractor may request that Engineer authorize the use of other items of equipment or material under the circumstances described below. To the extent possible such requests must be made before commencement of related construction at the Site.
1. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is functionally equivalent to that named and an acceptable substitute therefor. Engineer will not accept requests for review of proposed substitute items of equipment or material from anyone other than Contractor.
  2. The requirements for review by Engineer will be as set forth in Paragraph 7.06.B, as supplemented by the Specifications, and as Engineer may decide is appropriate under the circumstances.

3. Contractor shall make written application to Engineer for review of a proposed substitute item of equipment or material that Contractor seeks to furnish or use. The application:
  - a. will certify that the proposed substitute item will:
    - 1) perform adequately the functions and achieve the results called for by the general design;
    - 2) be similar in substance to the item specified; and
    - 3) be suited to the same use as the item specified.
  - b. will state:
    - 1) the extent, if any, to which the use of the proposed substitute item will necessitate a change in Contract Times;
    - 2) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item; and
    - 3) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty.
  - c. will identify:
    - 1) all variations of the proposed substitute item from the item specified; and
    - 2) available engineering, sales, maintenance, repair, and replacement services.
  - d. will contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including but not limited to changes in Contract Price, shared savings, costs of redesign, and claims of other contractors affected by any resulting change.
- B. *Engineer's Evaluation and Determination*: Engineer will be allowed a reasonable time to evaluate each substitute request, and to obtain comments and direction from Owner. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No substitute will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an acceptable substitute. Engineer's determination will be evidenced by a Field Order or a proposed Change Order accounting for the substitution itself and all related impacts, including changes in Contract Price or Contract Times. Engineer will advise Contractor in writing of any negative determination.
- C. *Special Guarantee*: Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- D. *Reimbursement of Engineer's Cost*: Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.

- E. *Contractor's Expense*: Contractor shall provide all data in support of any proposed substitute at Contractor's expense.
- F. *Effect of Engineer's Determination*: If Engineer approves the substitution request, Contractor shall execute the proposed Change Order and proceed with the substitution. The Engineer's denial of a substitution request will be final and binding, and may not be reversed through an appeal under any provision of the Contract. Contractor may challenge the scope of reimbursement costs imposed under Paragraph 7.06.D, by timely submittal of a Change Proposal.

#### 7.07 *Concerning Subcontractors and Suppliers*

- A. Contractor may retain Subcontractors and Suppliers for the performance of parts of the Work. Such Subcontractors and Suppliers must be acceptable to Owner. The Contractor's retention of a Subcontractor or Supplier for the performance of parts of the Work will not relieve Contractor's obligation to Owner to perform and complete the Work in accordance with the Contract Documents.
- B. Contractor shall retain specific Subcontractors and Suppliers for the performance of designated parts of the Work if required by the Contract to do so.
- C. Subsequent to the submittal of Contractor's Bid or final negotiation of the terms of the Contract, Owner may not require Contractor to retain any Subcontractor or Supplier to furnish or perform any of the Work against which Contractor has reasonable objection.
- D. Prior to entry into any binding subcontract or purchase order, Contractor shall submit to Owner the identity of the proposed Subcontractor or Supplier (unless Owner has already deemed such proposed Subcontractor or Supplier acceptable during the bidding process or otherwise). Such proposed Subcontractor or Supplier shall be deemed acceptable to Owner unless Owner raises a substantive, reasonable objection within 5 days.
- E. Owner may require the replacement of any Subcontractor or Supplier. Owner also may require Contractor to retain specific replacements; provided, however, that Owner may not require a replacement to which Contractor has a reasonable objection. If Contractor has submitted the identity of certain Subcontractors or Suppliers for acceptance by Owner, and Owner has accepted it (either in writing or by failing to make written objection thereto), then Owner may subsequently revoke the acceptance of any such Subcontractor or Supplier so identified solely on the basis of substantive, reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor or Supplier.
- F. If Owner requires the replacement of any Subcontractor or Supplier retained by Contractor to perform any part of the Work, then Contractor shall be entitled to an adjustment in Contract Price or Contract Times, with respect to the replacement; and Contractor shall initiate a Change Proposal for such adjustment within 30 days of Owner's requirement of replacement.
- G. No acceptance by Owner of any such Subcontractor or Supplier, whether initially or as a replacement, will constitute a waiver of the right of Owner to the completion of the Work in accordance with the Contract Documents.

- H. On a monthly basis, Contractor shall submit to Engineer a complete list of all Subcontractors and Suppliers having a direct contract with Contractor, and of all other Subcontractors and Suppliers known to Contractor at the time of submittal.
- I. Contractor shall be solely responsible for scheduling and coordinating the work of Subcontractors and Suppliers.
- J. The divisions and sections of the Specifications and the identifications of any Drawings do not control Contractor in dividing the Work among Subcontractors or Suppliers, or in delineating the Work to be performed by any specific trade.
- K. All Work performed for Contractor by a Subcontractor or Supplier must be pursuant to an appropriate contractual agreement that specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract for the benefit of Owner and Engineer.
- L. Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor for Work performed for Contractor by the Subcontractor or Supplier.
- M. Contractor shall restrict all Subcontractors and Suppliers from communicating with Engineer or Owner, except through Contractor or in case of an emergency, or as otherwise expressly allowed in this Contract.

#### 7.08 *Patent Fees and Royalties*

- A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If an invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights will be disclosed in the Contract Documents.
- B. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, and its officers, directors, members, partners, employees, agents, consultants, and subcontractors, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device specified in the Contract Documents, but not identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.
- C. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.



#### 7.09 *Permits*

- A. Unless otherwise provided in the Contract Documents, Contractor shall obtain and pay for all construction permits, licenses, and certificates of occupancy. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of the submission of Contractor's Bid (or when Contractor became bound under a negotiated contract). Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.

#### 7.10 *Taxes*

- A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

#### 7.11 *Laws and Regulations*

- A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. If Contractor performs any Work or takes any other action knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all resulting costs and losses, and shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work or other action. It is not Contractor's responsibility to make certain that the Work described in the Contract Documents is in accordance with Laws and Regulations, but this does not relieve Contractor of its obligations under Paragraph 3.03.
- C. Owner or Contractor may give written notice to the other party of any changes after the submission of Contractor's Bid (or after the date when Contractor became bound under a negotiated contract) in Laws or Regulations having an effect on the cost or time of performance of the Work, including but not limited to changes in Laws or Regulations having an effect on procuring permits and on sales, use, value-added, consumption, and other similar taxes. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times resulting from such changes, then within 30 days of such written notice Contractor may submit a Change Proposal, or Owner may initiate a Claim.

#### 7.12 *Record Documents*

- A. Contractor shall maintain in a safe place at the Site one printed record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, written interpretations and clarifications, and approved Shop Drawings. Contractor shall keep such record documents in good order and annotate them to show changes made during construction. These record documents, together with all approved Samples, will be available to Engineer for reference. Upon completion of the Work, Contractor shall deliver these record documents to Engineer.

### 7.13 *Safety and Protection*

- A. Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations.
- B. Contractor shall designate a qualified and experienced safety representative whose duties and responsibilities are the prevention of Work-related accidents and the maintenance and supervision of safety precautions and programs.
- C. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:
  - 1. all persons on the Site or who may be affected by the Work;
  - 2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
  - 3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, other work in progress, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- D. All damage, injury, or loss to any property referred to in Paragraph 7.13.C.2 or 7.13.C.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor at its expense (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).
- E. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection.
- F. Contractor shall notify Owner; the owners of adjacent property; the owners of Underground Facilities and other utilities (if the identity of such owners is known to Contractor); and other contractors and utility owners performing work at or adjacent to the Site, in writing, when Contractor knows that prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property or work in progress.
- G. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. Any Owner's safety programs that are applicable to the Work are identified or included in the Supplementary Conditions or Specifications.
- H. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.

- I. Contractor's duties and responsibilities for safety and protection will continue until all the Work is completed, Engineer has issued a written notice to Owner and Contractor in accordance with Paragraph 15.06.C that the Work is acceptable, and Contractor has left the Site (except as otherwise expressly provided in connection with Substantial Completion).
- J. Contractor's duties and responsibilities for safety and protection will resume whenever Contractor or any Subcontractor or Supplier returns to the Site to fulfill warranty or correction obligations, or to conduct other tasks arising from the Contract Documents.

7.14 *Hazard Communication Programs*

- A. Contractor shall be responsible for coordinating any exchange of safety data sheets (formerly known as material safety data sheets) or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

7.15 *Emergencies*

- A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused by an emergency, or are required as a result of Contractor's response to an emergency. If Engineer determines that a change in the Contract Documents is required because of an emergency or Contractor's response, a Work Change Directive or Change Order will be issued.

7.16 *Submittals*

A. *Shop Drawing and Sample Requirements*

- 1. Before submitting a Shop Drawing or Sample, Contractor shall:
  - a. review and coordinate the Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
  - b. determine and verify:
    - 1) all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect to the Submittal;
    - 2) the suitability of all materials and equipment offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
    - 3) all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto;
  - c. confirm that the Submittal is complete with respect to all related data included in the Submittal.
- 2. Each Shop Drawing or Sample must bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review of that Submittal, and that Contractor approves the Submittal.

3. With each Shop Drawing or Sample, Contractor shall give Engineer specific written notice of any variations that the Submittal may have from the requirements of the Contract Documents. This notice must be set forth in a written communication separate from the Submittal; and, in addition, in the case of a Shop Drawing by a specific notation made on the Shop Drawing itself.
- B. *Submittal Procedures for Shop Drawings and Samples:* Contractor shall label and submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals.
1. *Shop Drawings*
    - a. Contractor shall submit the number of copies required in the Specifications.
    - b. Data shown on the Shop Drawings must be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide, and to enable Engineer to review the information for the limited purposes required by Paragraph 7.16.C.
  2. *Samples*
    - a. Contractor shall submit the number of Samples required in the Specifications.
    - b. Contractor shall clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the Submittal for the limited purposes required by Paragraph 7.16.C.
  3. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.
- C. *Engineer's Review of Shop Drawings and Samples*
1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the accepted Schedule of Submittals. Engineer's review and approval will be only to determine if the items covered by the Submittals will, after installation or incorporation in the Work, comply with the requirements of the Contract Documents, and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
  2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction, or to safety precautions or programs incident thereto.
  3. Engineer's review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
  4. Engineer's review and approval of a Shop Drawing or Sample will not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 7.16.A.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer will

document any such approved variation from the requirements of the Contract Documents in a Field Order or other appropriate Contract modification.

5. Engineer's review and approval of a Shop Drawing or Sample will not relieve Contractor from responsibility for complying with the requirements of Paragraphs 7.16.A and B.
6. Engineer's review and approval of a Shop Drawing or Sample, or of a variation from the requirements of the Contract Documents, will not, under any circumstances, change the Contract Times or Contract Price, unless such changes are included in a Change Order.
7. Neither Engineer's receipt, review, acceptance, or approval of a Shop Drawing or Sample will result in such item becoming a Contract Document.
8. Contractor shall perform the Work in compliance with the requirements and commitments set forth in approved Shop Drawings and Samples, subject to the provisions of Paragraph 7.16.C.4.

*D. Resubmittal Procedures for Shop Drawings and Samples*

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous Submittals.
2. Contractor shall furnish required Shop Drawing and Sample submittals with sufficient information and accuracy to obtain required approval of an item with no more than two resubmittals. Engineer will record Engineer's time for reviewing a third or subsequent resubmittal of a Shop Drawing or Sample, and Contractor shall be responsible for Engineer's charges to Owner for such time. Owner may impose a set-off against payments due Contractor to secure reimbursement for such charges.
3. If Contractor requests a change of a previously approved Shop Drawing or Sample, Contractor shall be responsible for Engineer's charges to Owner for its review time, and Owner may impose a set-off against payments due Contractor to secure reimbursement for such charges, unless the need for such change is beyond the control of Contractor.

*E. Submittals Other than Shop Drawings, Samples, and Owner-Delegated Designs*

1. The following provisions apply to all Submittals other than Shop Drawings, Samples, and Owner-delegated designs:
  - a. Contractor shall submit all such Submittals to the Engineer in accordance with the Schedule of Submittals and pursuant to the applicable terms of the Contract Documents.
  - b. Engineer will provide timely review of all such Submittals in accordance with the Schedule of Submittals and return such Submittals with a notation of either Accepted or Not Accepted. Any such Submittal that is not returned within the time established in the Schedule of Submittals will be deemed accepted.
  - c. Engineer's review will be only to determine if the Submittal is acceptable under the requirements of the Contract Documents as to general form and content of the Submittal.

- d. If any such Submittal is not accepted, Contractor shall confer with Engineer regarding the reason for the non-acceptance, and resubmit an acceptable document.
- 2. Procedures for the submittal and acceptance of the Progress Schedule, the Schedule of Submittals, and the Schedule of Values are set forth in Paragraphs 2.03, 2.04, and 2.05.
- F. Owner-delegated Designs: Submittals pursuant to Owner-delegated designs are governed by the provisions of Paragraph 7.19.

**7.17 Contractor's General Warranty and Guarantee**

- A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer is entitled to rely on Contractor's warranty and guarantee.
- B. Owner's rights under this warranty and guarantee are in addition to, and are not limited by, Owner's rights under the correction period provisions of Paragraph 15.08. The time in which Owner may enforce its warranty and guarantee rights under this Paragraph 7.17 is limited only by applicable Laws and Regulations restricting actions to enforce such rights; provided, however, that after the end of the correction period under Paragraph 15.08:
  - 1. Owner shall give Contractor written notice of any defective Work within 60 days of the discovery that such Work is defective; and
  - 2. Such notice will be deemed the start of an event giving rise to a Claim under Paragraph 12.01.B, such that any related Claim must be brought within 30 days of the notice.
- C. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:
  - 1. abuse, or improper modification, maintenance, or operation, by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or
  - 2. normal wear and tear under normal usage.
- D. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents is absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents, a release of Contractor's obligation to perform the Work in accordance with the Contract Documents, or a release of Owner's warranty and guarantee rights under this Paragraph 7.17:
  - 1. Observations by Engineer;
  - 2. Recommendation by Engineer or payment by Owner of any progress or final payment;
  - 3. The issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;
  - 4. Use or occupancy of the Work or any part thereof by Owner;
  - 5. Any review and approval of a Shop Drawing or Sample submittal;
  - 6. The issuance of a notice of acceptability by Engineer;
  - 7. The end of the correction period established in Paragraph 15.08;
  - 8. Any inspection, test, or approval by others; or

9. Any correction of defective Work by Owner.
- E. If the Contract requires the Contractor to accept the assignment of a contract entered into by Owner, then the specific warranties, guarantees, and correction obligations contained in the assigned contract will govern with respect to Contractor's performance obligations to Owner for the Work described in the assigned contract.

#### 7.18 *Indemnification*

- A. To the fullest extent permitted by Laws and Regulations, and in addition to any other obligations of Contractor under the Contract or otherwise, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from losses, damages, costs, and judgments (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising from third-party claims or actions relating to or resulting from the performance or furnishing of the Work, provided that any such claim, action, loss, cost, judgment or damage is attributable to bodily injury, sickness, disease, or death, or to damage to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom, but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable.
- B. In any and all claims against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 7.18.A will not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.

#### 7.19 *Delegation of Professional Design Services*

- A. Owner may require Contractor to provide professional design services for a portion of the Work by express delegation in the Contract Documents. Such delegation will specify the performance and design criteria that such services must satisfy, and the Submittals that Contractor must furnish to Engineer with respect to the Owner-delegated design.
- B. Contractor shall cause such Owner-delegated professional design services to be provided pursuant to the professional standard of care by a properly licensed design professional, whose signature and seal must appear on all drawings, calculations, specifications, certifications, and Submittals prepared by such design professional. Such design professional must issue all certifications of design required by Laws and Regulations.
- C. If a Shop Drawing or other Submittal related to the Owner-delegated design is prepared by Contractor, a Subcontractor, or others for submittal to Engineer, then such Shop Drawing or other Submittal must bear the written approval of Contractor's design professional when submitted by Contractor to Engineer.

- D. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, and approvals performed or provided by the design professionals retained or employed by Contractor under an Owner-delegated design, subject to the professional standard of care and the performance and design criteria stated in the Contract Documents.
- E. Pursuant to this Paragraph 7.19, Engineer's review, approval, and other determinations regarding design drawings, calculations, specifications, certifications, and other Submittals furnished by Contractor pursuant to an Owner-delegated design will be only for the following limited purposes:
  - 1. Checking for conformance with the requirements of this Paragraph 7.19;
  - 2. Confirming that Contractor (through its design professionals) has used the performance and design criteria specified in the Contract Documents; and
  - 3. Establishing that the design furnished by Contractor is consistent with the design concept expressed in the Contract Documents.
- F. Contractor shall not be responsible for the adequacy of performance or design criteria specified by Owner or Engineer.
- G. Contractor is not required to provide professional services in violation of applicable Laws and Regulations.

## **ARTICLE 8—OTHER WORK AT THE SITE**

### **8.01 *Other Work***

- A. In addition to and apart from the Work under the Contract Documents, the Owner may perform other work at or adjacent to the Site. Such other work may be performed by Owner's employees, or through contracts between the Owner and third parties. Owner may also arrange to have third-party utility owners perform work on their utilities and facilities at or adjacent to the Site.
- B. If Owner performs other work at or adjacent to the Site with Owner's employees, or through contracts for such other work, then Owner shall give Contractor written notice thereof prior to starting any such other work. If Owner has advance information regarding the start of any third-party utility work that Owner has arranged to take place at or adjacent to the Site, Owner shall provide such information to Contractor.
- C. Contractor shall afford proper and safe access to the Site to each contractor that performs such other work, each utility owner performing other work, and Owner, if Owner is performing other work with Owner's employees, and provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work.
- D. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected.



- E. If the proper execution or results of any part of Contractor's Work depends upon work performed by others, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.
- F. The provisions of this article are not applicable to work that is performed by third-party utilities or other third-party entities without a contract with Owner, or that is performed without having been arranged by Owner. If such work occurs, then any related delay, disruption, or interference incurred by Contractor is governed by the provisions of Paragraph 4.05.C.3.

#### 8.02 *Coordination*

- A. If Owner intends to contract with others for the performance of other work at or adjacent to the Site, to perform other work at or adjacent to the Site with Owner's employees, or to arrange to have utility owners perform work at or adjacent to the Site, the following will be set forth in the Supplementary Conditions or provided to Contractor prior to the start of any such other work:
  - 1. The identity of the individual or entity that will have authority and responsibility for coordination of the activities among the various contractors;
  - 2. An itemization of the specific matters to be covered by such authority and responsibility; and
  - 3. The extent of such authority and responsibilities.
- B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

#### 8.03 *Legal Relationships*

- A. If, in the course of performing other work for Owner at or adjacent to the Site, the Owner's employees, any other contractor working for Owner, or any utility owner that Owner has arranged to perform work, causes damage to the Work or to the property of Contractor or its Subcontractors, or delays, disrupts, interferes with, or increases the scope or cost of the performance of the Work, through actions or inaction, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times. Contractor must submit any Change Proposal seeking an equitable adjustment in the Contract Price or the Contract Times under this paragraph within 30 days of the damaging, delaying, disrupting, or interfering event. The entitlement to, and extent of, any such equitable adjustment will take into account information (if any) regarding such other work that was provided to Contractor in the Contract Documents prior to the submittal of the Bid or the final negotiation of the terms of the Contract, and any remedies available to Contractor under Laws or Regulations concerning utility action or inaction. When applicable, any such equitable adjustment in Contract Price will be conditioned on Contractor assigning to Owner all Contractor's rights against such other contractor or utility owner with respect to the damage, delay, disruption, or interference that is the subject of the adjustment. Contractor's entitlement to an adjustment of the Contract Times or Contract Price is subject to the provisions of Paragraphs 4.05.D and 4.05.E.

- B. Contractor shall take reasonable and customary measures to avoid damaging, delaying, disrupting, or interfering with the work of Owner, any other contractor, or any utility owner performing other work at or adjacent to the Site.
  - 1. If Contractor fails to take such measures and as a result damages, delays, disrupts, or interferes with the work of any such other contractor or utility owner, then Owner may impose a set-off against payments due Contractor, and assign to such other contractor or utility owner the Owner's contractual rights against Contractor with respect to the breach of the obligations set forth in this Paragraph 8.03.B.
  - 2. When Owner is performing other work at or adjacent to the Site with Owner's employees, Contractor shall be liable to Owner for damage to such other work, and for the reasonable direct delay, disruption, and interference costs incurred by Owner as a result of Contractor's failure to take reasonable and customary measures with respect to Owner's other work. In response to such damage, delay, disruption, or interference, Owner may impose a set-off against payments due Contractor.
- C. If Contractor damages, delays, disrupts, or interferes with the work of any other contractor, or any utility owner performing other work at or adjacent to the Site, through Contractor's failure to take reasonable and customary measures to avoid such impacts, or if any claim arising out of Contractor's actions, inactions, or negligence in performance of the Work at or adjacent to the Site is made by any such other contractor or utility owner against Contractor, Owner, or Engineer, then Contractor shall (1) promptly attempt to settle the claim as to all parties through negotiations with such other contractor or utility owner, or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law, and (2) indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claims, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such damage, delay, disruption, or interference.

## **ARTICLE 9—OWNER'S RESPONSIBILITIES**

### **9.01    *Communications to Contractor***

- A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.

### **9.02    *Replacement of Engineer***

- A. Owner may at its discretion appoint an engineer to replace Engineer, provided Contractor makes no reasonable objection to the replacement engineer. The replacement engineer's status under the Contract Documents will be that of the former Engineer.

### **9.03    *Furnish Data***

- A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

### **9.04    *Pay When Due***

- A. Owner shall make payments to Contractor when they are due as provided in the Agreement.

9.05 *Lands and Easements; Reports, Tests, and Drawings*

- A. Owner's duties with respect to providing lands and easements are set forth in Paragraph 5.01.
- B. Owner's duties with respect to providing engineering surveys to establish reference points are set forth in Paragraph 4.03.
- C. Article 5 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of conditions at the Site, and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

9.06 *Insurance*

- A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 6.

9.07 *Change Orders*

- A. Owner's responsibilities with respect to Change Orders are set forth in Article 11.

9.08 *Inspections, Tests, and Approvals*

- A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 14.02.B.

9.09 *Limitations on Owner's Responsibilities*

- A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

9.10 *Undisclosed Hazardous Environmental Condition*

- A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 5.06.

9.11 *Evidence of Financial Arrangements*

- A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract (including obligations under proposed changes in the Work).

9.12 *Safety Programs*

- A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed.
- B. Owner shall furnish copies of any applicable Owner safety programs to Contractor.

## ARTICLE 10—ENGINEER'S STATUS DURING CONSTRUCTION

### 10.01 *Owner's Representative*

- A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract.

### 10.02 *Visits to Site*

- A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe, as an experienced and qualified design professional, the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.
- B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 10.07. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

### 10.03 *Resident Project Representative*

- A. If Owner and Engineer have agreed that Engineer will furnish a Resident Project Representative to represent Engineer at the Site and assist Engineer in observing the progress and quality of the Work, then the authority and responsibilities of any such Resident Project Representative will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in the Supplementary Conditions and in Paragraph 10.07.
- B. If Owner designates an individual or entity who is not Engineer's consultant, agent, or employee to represent Owner at the Site, then the responsibilities and authority of such individual or entity will be as provided in the Supplementary Conditions.

### 10.04 *Engineer's Authority*

- A. Engineer has the authority to reject Work in accordance with Article 14.
- B. Engineer's authority as to Submittals is set forth in Paragraph 7.16.
- C. Engineer's authority as to design drawings, calculations, specifications, certifications and other Submittals from Contractor in response to Owner's delegation (if any) to Contractor of professional design services, is set forth in Paragraph 7.19.
- D. Engineer's authority as to changes in the Work is set forth in Article 11.

E. Engineer's authority as to Applications for Payment is set forth in Article 15.

**10.05 *Determinations for Unit Price Work***

A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor as set forth in Paragraph 13.03.

**10.06 *Decisions on Requirements of Contract Documents and Acceptability of Work***

A. Engineer will render decisions regarding the requirements of the Contract Documents, and judge the acceptability of the Work, pursuant to the specific procedures set forth herein for initial interpretations, Change Proposals, and acceptance of the Work. In rendering such decisions and judgments, Engineer will not show partiality to Owner or Contractor, and will not be liable to Owner, Contractor, or others in connection with any proceedings, interpretations, decisions, or judgments conducted or rendered in good faith.

**10.07 *Limitations on Engineer's Authority and Responsibilities***

A. Neither Engineer's authority or responsibility under this Article 10 or under any other provision of the Contract, nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer, will create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.

D. Engineer's review of the final Application for Payment and accompanying documentation, and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Contractor under Paragraph 15.06.A, will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals, that the results certified indicate compliance with the Contract Documents.

E. The limitations upon authority and responsibility set forth in this Paragraph 10.07 also apply to the Resident Project Representative, if any.

**10.08 *Compliance with Safety Program***

A. While at the Site, Engineer's employees and representatives will comply with the specific applicable requirements of Owner's and Contractor's safety programs of which Engineer has been informed.

## ARTICLE 11—CHANGES TO THE CONTRACT

### 11.01 *Amending and Supplementing the Contract*

- A. The Contract may be amended or supplemented by a Change Order.
- B. If an amendment or supplement to the Contract includes a change in the Contract Price or the Contract Times, such amendment or supplement must be set forth in a Change Order.
- C. All changes to the Contract that involve (1) the performance or acceptability of the Work, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, must be supported by Engineer's recommendation. Owner and Contractor may amend other terms and conditions of the Contract without the recommendation of the Engineer.

### 11.02 *Change Orders*

- A. Owner and Contractor shall execute appropriate Change Orders covering:
  - 1. Changes in Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive;
  - 2. Changes in Contract Price resulting from an Owner set-off, unless Contractor has duly contested such set-off;
  - 3. Changes in the Work which are: (a) ordered by Owner pursuant to Paragraph 11.05, (b) required because of Owner's acceptance of defective Work under Paragraph 14.04 or Owner's correction of defective Work under Paragraph 14.07, or (c) agreed to by the parties, subject to the need for Engineer's recommendation if the change in the Work involves the design (as set forth in the Drawings, Specifications, or otherwise) or other engineering or technical matters; and
  - 4. Changes that embody the substance of any final and binding results under: Paragraph 11.03.B, resolving the impact of a Work Change Directive; Paragraph 11.09, concerning Change Proposals; Article 12, Claims; Paragraph 13.02.D, final adjustments resulting from allowances; Paragraph 13.03.D, final adjustments relating to determination of quantities for Unit Price Work; and similar provisions.
- B. If Owner or Contractor refuses to execute a Change Order that is required to be executed under the terms of Paragraph 11.02.A, it will be deemed to be of full force and effect, as if fully executed.

### 11.03 *Work Change Directives*

- A. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the modification ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order, following negotiations by the parties as to the Work Change Directive's effect, if any, on the Contract Price and Contract Times; or, if negotiations are unsuccessful, by a determination under the terms of the Contract Documents governing adjustments, expressly including Paragraph 11.07 regarding change of Contract Price.

- B. If Owner has issued a Work Change Directive and:
  - 1. Contractor believes that an adjustment in Contract Times or Contract Price is necessary, then Contractor shall submit any Change Proposal seeking such an adjustment no later than 30 days after the completion of the Work set out in the Work Change Directive.
  - 2. Owner believes that an adjustment in Contract Times or Contract Price is necessary, then Owner shall submit any Claim seeking such an adjustment no later than 60 days after issuance of the Work Change Directive.

11.04 *Field Orders -N/A*

11.05 *Owner-Authorized Changes in the Work*

- A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work. Changes involving the design (as set forth in the Drawings, Specifications, or otherwise) or other engineering or technical matters will be supported by Engineer's recommendation.
- B. Such changes in the Work may be accomplished by a Change Order, if Owner and Contractor have agreed as to the effect, if any, of the changes on Contract Times or Contract Price; or by a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved; or, in the case of a deletion in the Work, promptly cease construction activities with respect to such deleted Work. Added or revised Work must be performed under the applicable conditions of the Contract Documents.
- C. Nothing in this Paragraph 11.05 obligates Contractor to undertake work that Contractor reasonably concludes cannot be performed in a manner consistent with Contractor's safety obligations under the Contract Documents or Laws and Regulations.

11.06 *Unauthorized Changes in the Work*

- A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents, as amended, modified, or supplemented, except in the case of an emergency as provided in Paragraph 7.15 or in the case of uncovering Work as provided in Paragraph 14.05.C.2.

11.07 *Change of Contract Price*

- A. The Contract Price may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Price must comply with the provisions of Paragraph 11.09. Any Claim for an adjustment of Contract Price must comply with the provisions of Article 12.
- B. An adjustment in the Contract Price will be determined as follows:
  - 1. Where the Work involved is covered by unit prices contained in the Contract Documents, then by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 13.03);
  - 2. Where the Work involved is not covered by unit prices contained in the Contract Documents, then by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 11.07.C.2); or
  - 3. Where the Work involved is not covered by unit prices contained in the Contract Documents and the parties do not reach mutual agreement to a lump sum, then on the

basis of the Cost of the Work (determined as provided in Paragraph 13.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 11.07.C).

C. *Contractor's Fee*: When applicable, the Contractor's fee for overhead and profit will be determined as follows:

1. A mutually acceptable fixed fee; or
2. If a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
  - a. For costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2, the Contractor's fee will be 15 percent;
  - b. For costs incurred under Paragraph 13.01.B.3, the Contractor's fee will be 5 percent;
  - c. Where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 11.07.C.2.a and 11.07.C.2.b is that the Contractor's fee will be based on: (1) a fee of 15 percent of the costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2 by the Subcontractor that actually performs the Work, at whatever tier, and (2) with respect to Contractor itself and to any Subcontractors of a tier higher than that of the Subcontractor that actually performs the Work, a fee of 5 percent of the amount (fee plus underlying costs incurred) attributable to the next lower tier Subcontractor; provided, however, that for any such subcontracted Work the maximum total fee to be paid by Owner will be no greater than 27 percent of the costs incurred by the Subcontractor that actually performs the Work;
  - d. No fee will be payable on the basis of costs itemized under Paragraphs 13.01.B.4, 13.01.B.5, and 13.01.C;
  - e. The amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in Cost of the Work will be the amount of the actual net decrease in Cost of the Work and a deduction of an additional amount equal to 5 percent of such actual net decrease in Cost of the Work; and
  - f. When both additions and credits are involved in any one change or Change Proposal, the adjustment in Contractor's fee will be computed by determining the sum of the costs in each of the cost categories in Paragraph 13.01.B (specifically, payroll costs, Paragraph 13.01.B.1; incorporated materials and equipment costs, Paragraph 13.01.B.2; Subcontract costs, Paragraph 13.01.B.3; special consultants costs, Paragraph 13.01.B.4; and other costs, Paragraph 13.01.B.5) and applying to each such cost category sum the appropriate fee from Paragraphs 11.07.C.2.a through 11.07.C.2.e, inclusive.

#### 11.08 *Change of Contract Times*

- A. The Contract Times may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Times must comply with the provisions of Paragraph 11.09. Any Claim for an adjustment in the Contract Times must comply with the provisions of Article 12.
- B. Delay, disruption, and interference in the Work, and any related changes in Contract Times, are addressed in and governed by Paragraph 4.05.



## 11.09 *Change Proposals*

A. *Purpose and Content:* Contractor shall submit a Change Proposal to Engineer to request an adjustment in the Contract Times or Contract Price; contest an initial decision by Engineer concerning the requirements of the Contract Documents or relating to the acceptability of the Work under the Contract Documents; challenge a set-off against payment due; or seek other relief under the Contract. The Change Proposal will specify any proposed change in Contract Times or Contract Price, or other proposed relief, and explain the reason for the proposed change, with citations to any governing or applicable provisions of the Contract Documents. Each Change Proposal will address only one issue, or a set of closely related issues.

### B. *Change Proposal Procedures*

1. *Submittal:* Contractor shall submit each Change Proposal to Engineer within 30 days after the start of the event giving rise thereto, or after such initial decision.
2. *Supporting Data:* The Contractor shall submit supporting data, including the proposed change in Contract Price or Contract Time (if any), to the Engineer and Owner within 15 days after the submittal of the Change Proposal.
  - a. Change Proposals based on or related to delay, interruption, or interference must comply with the provisions of Paragraphs 4.05.D and 4.05.E.
  - b. Change proposals related to a change of Contract Price must include full and detailed accounts of materials incorporated into the Work and labor and equipment used for the subject Work.

The supporting data must be accompanied by a written statement that the supporting data are accurate and complete, and that any requested time or price adjustment is the entire adjustment to which Contractor believes it is entitled as a result of said event.

3. *Engineer's Initial Review:* Engineer will advise Owner regarding the Change Proposal, and consider any comments or response from Owner regarding the Change Proposal. If in its discretion Engineer concludes that additional supporting data is needed before conducting a full review and making a decision regarding the Change Proposal, then Engineer may request that Contractor submit such additional supporting data by a date specified by Engineer, prior to Engineer beginning its full review of the Change Proposal.
4. *Engineer's Full Review and Action on the Change Proposal:* Upon receipt of Contractor's supporting data (including any additional data requested by Engineer), Engineer will conduct a full review of each Change Proposal and, within 30 days after such receipt of the Contractor's supporting data, either approve the Change Proposal in whole, deny it in whole, or approve it in part and deny it in part. Such actions must be in writing, with a copy provided to Owner and Contractor. If Engineer does not take action on the Change Proposal within 30 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of Engineer's inaction the Change Proposal is deemed denied, thereby commencing the time for appeal of the denial under Article 12.
5. *Binding Decision:* Engineer's decision is final and binding upon Owner and Contractor, unless Owner or Contractor appeals the decision by filing a Claim under Article 12.

- C. *Resolution of Certain Change Proposals*: If the Change Proposal does not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters, then Engineer will notify the parties in writing that the Engineer is unable to resolve the Change Proposal. For purposes of further resolution of such a Change Proposal, such notice will be deemed a denial, and Contractor may choose to seek resolution under the terms of Article 12.
- D. *Post-Completion*: Contractor shall not submit any Change Proposals after Engineer issues a written recommendation of final payment pursuant to Paragraph 15.06.B.

#### 11.10 *Notification to Surety*

- A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

### ARTICLE 12—CLAIMS

#### 12.01 *Claims*

- A. *Claims Process*: The following disputes between Owner and Contractor are subject to the Claims process set forth in this article:
  - 1. Appeals by Owner or Contractor of Engineer's decisions regarding Change Proposals;
  - 2. Owner demands for adjustments in the Contract Price or Contract Times, or other relief under the Contract Documents;
  - 3. Disputes that Engineer has been unable to address because they do not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters; and
  - 4. Subject to the waiver provisions of Paragraph 15.07, any dispute arising after Engineer has issued a written recommendation of final payment pursuant to Paragraph 15.06.B.
- B. *Submittal of Claim*: The party submitting a Claim shall deliver it directly to the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto; in the case of appeals regarding Change Proposals within 30 days of the decision under appeal. The party submitting the Claim shall also furnish a copy to the Engineer, for its information only. The responsibility to substantiate a Claim rests with the party making the Claim. In the case of a Claim by Contractor seeking an increase in the Contract Times or Contract Price, Contractor shall certify that the Claim is made in good faith, that the supporting data are accurate and complete, and that to the best of Contractor's knowledge and belief the amount of time or money requested accurately reflects the full amount to which Contractor is entitled.
- C. *Review and Resolution*: The party receiving a Claim shall review it thoroughly, giving full consideration to its merits. The two parties shall seek to resolve the Claim through the exchange of information and direct negotiations. The parties may extend the time for resolving the Claim by mutual agreement. All actions taken on a Claim will be stated in writing and submitted to the other party, with a copy to Engineer.

D. *Mediation*

1. At any time after initiation of a Claim, Owner and Contractor may mutually agree to mediation of the underlying dispute. The agreement to mediate will stay the Claim submittal and response process.
  2. If Owner and Contractor agree to mediation, then after 60 days from such agreement, either Owner or Contractor may unilaterally terminate the mediation process, and the Claim submittal and decision process will resume as of the date of the termination. If the mediation proceeds but is unsuccessful in resolving the dispute, the Claim submittal and decision process will resume as of the date of the conclusion of the mediation, as determined by the mediator.
  3. Owner and Contractor shall each pay one-half of the mediator's fees and costs.
- E. *Partial Approval*: If the party receiving a Claim approves the Claim in part and denies it in part, such action will be final and binding unless within 30 days of such action the other party invokes the procedure set forth in Article 17 for final resolution of disputes.
- F. *Denial of Claim*: If efforts to resolve a Claim are not successful, the party receiving the Claim may deny it by giving written notice of denial to the other party. If the receiving party does not take action on the Claim within 90 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of the inaction, the Claim is deemed denied, thereby commencing the time for appeal of the denial. A denial of the Claim will be final and binding unless within 30 days of the denial the other party invokes the procedure set forth in Article 17 for the final resolution of disputes.
- G. *Final and Binding Results*: If the parties reach a mutual agreement regarding a Claim, whether through approval of the Claim, direct negotiations, mediation, or otherwise; or if a Claim is approved in part and denied in part, or denied in full, and such actions become final and binding; then the results of the agreement or action on the Claim will be incorporated in a Change Order or other written document to the extent they affect the Contract, including the Work, the Contract Times, or the Contract Price.

**ARTICLE 13—COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK**

13.01 *Cost of the Work*

- A. *Purposes for Determination of Cost of the Work*: The term Cost of the Work means the sum of all costs necessary for the proper performance of the Work at issue, as further defined below. The provisions of this Paragraph 13.01 are used for two distinct purposes:
1. To determine Cost of the Work when Cost of the Work is a component of the Contract Price, under cost-plus-fee, time-and-materials, or other cost-based terms; or
  2. When needed to determine the value of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price. When the value of any such adjustment is determined on the basis of Cost of the Work, Contractor is entitled only to those additional or incremental costs required because of the change in the Work or because of the event giving rise to the adjustment.
- B. *Costs Included*: Except as otherwise may be agreed to in writing by Owner, costs included in the Cost of the Work will be in amounts no higher than those commonly incurred in the

locality of the Project, will not include any of the costs itemized in Paragraph 13.01.C, and will include only the following items:

1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor in advance of the subject Work. Such employees include, without limitation, superintendents, foremen, safety managers, safety representatives, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work will be apportioned on the basis of their time spent on the Work. Payroll costs include, but are not limited to, salaries and wages plus the cost of fringe benefits, which include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, sick leave, and vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, will be included in the above to the extent authorized by Owner.
2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts will accrue to Owner. All trade discounts, rebates, and refunds and returns from sale of surplus materials and equipment will accrue to Owner, and Contractor shall make provisions so that they may be obtained.
3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, which will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee will be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 13.01.
4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed or retained for services specifically related to the Work.
5. Other costs consisting of the following:
  - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
  - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.
    - 1) In establishing included costs for materials such as scaffolding, plating, or sheeting, consideration will be given to the actual or the estimated life of the material for use on other projects; or rental rates may be established on the basis of purchase or salvage value of such items, whichever is less. Contractor will not be eligible for compensation for such items in an amount that exceeds the purchase cost of such item.

c. *Construction Equipment Rental*

- 1) Rentals of all construction equipment and machinery, and the parts thereof, in accordance with rental agreements approved by Owner as to price (including any surcharge or special rates applicable to overtime use of the construction equipment or machinery), and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs will be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts must cease when the use thereof is no longer necessary for the Work.
  - 2) Costs for equipment and machinery owned by Contractor or a Contractor-related entity will be paid at a rate shown for such equipment in the equipment rental rate book specified in the Supplementary Conditions. An hourly rate will be computed by dividing the monthly rates by 176. These computed rates will include all operating costs.
  - 3) With respect to Work that is the result of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price ("changed Work"), included costs will be based on the time the equipment or machinery is in use on the changed Work and the costs of transportation, loading, unloading, assembly, dismantling, and removal when directly attributable to the changed Work. The cost of any such equipment or machinery, or parts thereof, must cease to accrue when the use thereof is no longer necessary for the changed Work.
- d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.
  - e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
  - f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of builder's risk or other property insurance established in accordance with Paragraph 6.04), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses will be included in the Cost of the Work for the purpose of determining Contractor's fee.
  - g. The cost of utilities, fuel, and sanitary facilities at the Site.
  - h. Minor expenses such as communication service at the Site, express and courier services, and similar petty cash items in connection with the Work.
  - i. The costs of premiums for all bonds and insurance that Contractor is required by the Contract Documents to purchase and maintain.

C. *Costs Excluded:* The term Cost of the Work does not include any of the following items:

1. Payroll costs and other compensation of Contractor's officers, executives, principals, general managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 13.01.B.1 or specifically covered by Paragraph 13.01.B.4. The payroll costs and other compensation excluded here are to be considered administrative costs covered by the Contractor's fee.
2. The cost of purchasing, renting, or furnishing small tools and hand tools.
3. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
4. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
5. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
6. Expenses incurred in preparing and advancing Claims.
7. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraph 13.01.B.

D. *Contractor's Fee*

1. When the Work as a whole is performed on the basis of cost-plus-a-fee, then:
  - a. Contractor's fee for the Work set forth in the Contract Documents as of the Effective Date of the Contract will be determined as set forth in the Agreement.
  - b. for any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price on the basis of Cost of the Work, Contractor's fee will be determined as follows:
    - 1) When the fee for the Work as a whole is a percentage of the Cost of the Work, the fee will automatically adjust as the Cost of the Work changes.
    - 2) When the fee for the Work as a whole is a fixed fee, the fee for any additions or deletions will be determined in accordance with Paragraph 11.07.C.2.
2. When the Work as a whole is performed on the basis of a stipulated sum, or any other basis other than cost-plus-a-fee, then Contractor's fee for any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price on the basis of Cost of the Work will be determined in accordance with Paragraph 11.07.C.2.

E. *Documentation and Audit:* Whenever the Cost of the Work for any purpose is to be determined pursuant to this Article 13, Contractor and pertinent Subcontractors will establish and maintain records of the costs in accordance with generally accepted accounting practices. Subject to prior written notice, Owner will be afforded reasonable access, during normal business hours, to all Contractor's accounts, records, books, correspondence, instructions,

drawings, receipts, vouchers, memoranda, and similar data relating to the Cost of the Work and Contractor's fee. Contractor shall preserve all such documents for a period of three years after the final payment by Owner. Pertinent Subcontractors will afford such access to Owner, and preserve such documents, to the same extent required of Contractor.

#### 13.02 Allowances

- A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.
- B. *Cash Allowances*: Contractor agrees that:
  - 1. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and
  - 2. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment for any of the foregoing will be valid.
- C. *Owner's Contingency Allowance*: Contractor agrees that an Owner's contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.
- D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor for Work covered by allowances, and the Contract Price will be correspondingly adjusted.

#### 13.03 Unit Price Work

- A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.
- B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Payments to Contractor for Unit Price Work will be based on actual quantities.
- C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.
- D. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, and the final adjustment of Contract Price will be set forth in a Change Order, subject to the provisions of the following paragraph.

E. *Adjustments in Unit Price*

1. Contractor or Owner shall be entitled to an adjustment in the unit price with respect to an item of Unit Price Work if:
  - a. the quantity of the item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and
  - b. Contractor's unit costs to perform the item of Unit Price Work have changed materially and significantly as a result of the quantity change.
2. The adjustment in unit price will account for and be coordinated with any related changes in quantities of other items of Work, and in Contractor's costs to perform such other Work, such that the resulting overall change in Contract Price is equitable to Owner and Contractor.
3. Adjusted unit prices will apply to all units of that item.

**ARTICLE 14—TESTS AND INSPECTIONS; CORRECTION, REMOVAL, OR ACCEPTANCE OF DEFECTIVE WORK**

14.01 *Access to Work*

- A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and authorities having jurisdiction have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's safety procedures and programs so that they may comply with such procedures and programs as applicable.

14.02 *Tests, Inspections, and Approvals*

- A. Contractor shall give Engineer timely notice of readiness of the Work (or specific parts thereof) for all required inspections and tests, and shall cooperate with inspection and testing personnel to facilitate required inspections and tests.
- B. Owner shall retain and pay for the services of an independent inspector, testing laboratory, or other qualified individual or entity to perform all inspections and tests expressly required by the Contract Documents to be furnished and paid for by Owner, except that costs incurred in connection with tests or inspections of covered Work will be governed by the provisions of Paragraph 14.05.
- C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.
- D. Contractor shall be responsible for arranging, obtaining, and paying for all inspections and tests required:
  1. by the Contract Documents, unless the Contract Documents expressly allocate responsibility for a specific inspection or test to Owner;



2. to attain Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work;
3. by manufacturers of equipment furnished under the Contract Documents;
4. for testing, adjusting, and balancing of mechanical, electrical, and other equipment to be incorporated into the Work; and
5. for acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work.

Such inspections and tests will be performed by independent inspectors, testing laboratories, or other qualified individuals or entities acceptable to Owner and Engineer.

- E. If the Contract Documents require the Work (or part thereof) to be approved by Owner, Engineer, or another designated individual or entity, then Contractor shall assume full responsibility for arranging and obtaining such approvals.
- F. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation. Such uncovering will be at Contractor's expense unless Contractor had given Engineer timely notice of Contractor's intention to cover the same and Engineer had not acted with reasonable promptness in response to such notice.

#### 14.03 *Defective Work*

- A. *Contractor's Obligation*: It is Contractor's obligation to assure that the Work is not defective.
- B. *Engineer's Authority*: Engineer has the authority to determine whether Work is defective, and to reject defective Work.
- C. *Notice of Defects*: Prompt written notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor.
- D. *Correction, or Removal and Replacement*: Promptly after receipt of written notice of defective Work, Contractor shall correct all such defective Work, whether or not fabricated, installed, or completed, or, if Engineer has rejected the defective Work, remove it from the Project and replace it with Work that is not defective.
- E. *Preservation of Warranties*: When correcting defective Work, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.
- F. *Costs and Damages*: In addition to its correction, removal, and replacement obligations with respect to defective Work, Contractor shall pay all claims, costs, losses, and damages arising out of or relating to defective Work, including but not limited to the cost of the inspection, testing, correction, removal, replacement, or reconstruction of such defective Work, fines levied against Owner by governmental authorities because the Work is defective, and the costs of repair or replacement of work of others resulting from defective Work. Prior to final payment, if Owner and Contractor are unable to agree as to the measure of such claims, costs, losses, and damages resulting from defective Work, then Owner may impose a reasonable set-off against payments due under Article 15.

#### 14.04 *Acceptance of Defective Work*

- A. If, instead of requiring correction or removal and replacement of defective Work, Owner prefers to accept it, Owner may do so (subject, if such acceptance occurs prior to final payment, to Engineer's confirmation that such acceptance is in general accord with the design intent and applicable engineering principles, and will not endanger public safety). Contractor shall pay all claims, costs, losses, and damages attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness), and for the diminished value of the Work to the extent not otherwise paid by Contractor. If any such acceptance occurs prior to final payment, the necessary revisions in the Contract Documents with respect to the Work will be incorporated in a Change Order. If the parties are unable to agree as to the decrease in the Contract Price, reflecting the diminished value of Work so accepted, then Owner may impose a reasonable set-off against payments due under Article 15. If the acceptance of defective Work occurs after final payment, Contractor shall pay an appropriate amount to Owner.

#### 14.05 *Uncovering Work*

- A. Engineer has the authority to require additional inspection or testing of the Work, whether or not the Work is fabricated, installed, or completed.
- B. If any Work is covered contrary to the written request of Engineer, then Contractor shall, if requested by Engineer, uncover such Work for Engineer's observation, and then replace the covering, all at Contractor's expense.
- C. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, then Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, and provide all necessary labor, material, and equipment.
  - 1. If it is found that the uncovered Work is defective, Contractor shall be responsible for all claims, costs, losses, and damages arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and pending Contractor's full discharge of this responsibility the Owner shall be entitled to impose a reasonable set-off against payments due under Article 15.
  - 2. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, then Contractor may submit a Change Proposal within 30 days of the determination that the Work is not defective.

#### 14.06 *Owner May Stop the Work*

- A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, then Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work will not give rise to any duty on the part of Owner to exercise this

right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

**14.07 Owner May Correct Defective Work**

- A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace defective Work as required by Engineer, then Owner may, after 7 days' written notice to Contractor, correct or remedy any such deficiency.
- B. In exercising the rights and remedies under this Paragraph 14.07, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this paragraph.
- C. All claims, costs, losses, and damages incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 14.07 will be charged against Contractor as set-offs against payments due under Article 15. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.
- D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 14.07.

**ARTICLE 15—PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD**

**15.01 Progress Payments**

- A. *Basis for Progress Payments:* The Schedule of Values established as provided in Article 2 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments for Unit Price Work will be based on the number of units completed during the pay period, as determined under the provisions of Paragraph 13.03. Progress payments for cost-based Work will be based on Cost of the Work completed by Contractor during the pay period.
- B. *Applications for Payments*
  - 1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents.
  - 2. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment must also be accompanied by: (a) a bill of sale, invoice, copies of subcontract or purchase order payments, or other documentation establishing full payment by Contractor for the materials and equipment; (b) at Owner's request, documentation warranting that Owner has received the materials and

equipment free and clear of all Liens; and (c) evidence that the materials and equipment are covered by appropriate property insurance, a warehouse bond, or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.

3. Beginning with the second Application for Payment, each Application must include an affidavit of Contractor stating that all previous progress payments received by Contractor have been applied to discharge Contractor's legitimate obligations associated with prior Applications for Payment.
4. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

*C. Review of Applications*

1. Engineer will, within 10 days after receipt of each Application for Payment, including each resubmittal, either indicate in writing a recommendation of payment and present the Application to Owner, or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.
2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:
  - a. the Work has progressed to the point indicated;
  - b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 13.03, and any other qualifications stated in the recommendation); and
  - c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.
3. By recommending any such payment Engineer will not thereby be deemed to have represented that:
  - a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract; or
  - b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.

4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
  - a. to supervise, direct, or control the Work;
  - b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto;
  - c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work;
  - d. to make any examination to ascertain how or for what purposes Contractor has used the money paid by Owner; or
  - e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.
5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 15.01.C.2.
6. Engineer will recommend reductions in payment (set-offs) necessary in Engineer's opinion to protect Owner from loss because:
  - a. the Work is defective, requiring correction or replacement;
  - b. the Contract Price has been reduced by Change Orders;
  - c. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
  - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible; or
  - e. Engineer has actual knowledge of the occurrence of any of the events that would constitute a default by Contractor and therefore justify termination for cause under the Contract Documents.

**D. *Payment Becomes Due***

1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended (subject to any Owner set-offs) will become due, and when due will be paid by Owner to Contractor.

**E. *Reductions in Payment by Owner***

1. In addition to any reductions in payment (set-offs) recommended by Engineer, Owner is entitled to impose a set-off against payment based on any of the following:
  - a. Claims have been made against Owner based on Contractor's conduct in the performance or furnishing of the Work, or Owner has incurred costs, losses, or damages resulting from Contractor's conduct in the performance or furnishing of the Work, including but not limited to claims, costs, losses, or damages from workplace injuries, adjacent property damage, non-compliance with Laws and Regulations, and patent infringement;

- b. Contractor has failed to take reasonable and customary measures to avoid damage, delay, disruption, and interference with other work at or adjacent to the Site;
  - c. Contractor has failed to provide and maintain required bonds or insurance;
  - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible;
  - e. Owner has incurred extra charges or engineering costs related to submittal reviews, evaluations of proposed substitutes, tests and inspections, or return visits to manufacturing or assembly facilities;
  - f. The Work is defective, requiring correction or replacement;
  - g. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
  - h. The Contract Price has been reduced by Change Orders;
  - i. An event has occurred that would constitute a default by Contractor and therefore justify a termination for cause;
  - j. Liquidated or other damages have accrued as a result of Contractor's failure to achieve Milestones, Substantial Completion, or final completion of the Work;
  - k. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens; or
  - l. Other items entitle Owner to a set-off against the amount recommended.
2. If Owner imposes any set-off against payment, whether based on its own knowledge or on the written recommendations of Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and the specific amount of the reduction, and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, if Contractor remedies the reasons for such action. The reduction imposed will be binding on Contractor unless it duly submits a Change Proposal contesting the reduction.
  3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld will be treated as an amount due as determined by Paragraph 15.01.D.1 and subject to interest as provided in the Agreement.

#### 15.02 *Contractor's Warranty of Title*

- A. Contractor warrants and guarantees that title to all Work, materials, and equipment furnished under the Contract will pass to Owner free and clear of (1) all Liens and other title defects, and (2) all patent, licensing, copyright, or royalty obligations, no later than 7 days after the time of payment by Owner.

#### 15.03 *Substantial Completion*

- A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete and request that Engineer issue a certificate of Substantial Completion. Contractor shall at the same time

submit to Owner and Engineer an initial draft of punch list items to be completed or corrected before final payment.

- B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.
- C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a preliminary certificate of Substantial Completion which will fix the date of Substantial Completion. Engineer shall attach to the certificate a punch list of items to be completed or corrected before final payment. Owner shall have 7 days after receipt of the preliminary certificate during which to make written objection to Engineer as to any provisions of the certificate or attached punch list. If, after considering the objections to the provisions of the preliminary certificate, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the preliminary certificate to Owner, notify Contractor in writing that the Work is not substantially complete, stating the reasons therefor. If Owner does not object to the provisions of the certificate, or if despite consideration of Owner's objections Engineer concludes that the Work is substantially complete, then Engineer will, within said 14 days, execute and deliver to Owner and Contractor a final certificate of Substantial Completion (with a revised punch list of items to be completed or corrected) reflecting such changes from the preliminary certificate as Engineer believes justified after consideration of any objections from Owner.
- D. At the time of receipt of the preliminary certificate of Substantial Completion, Owner and Contractor will confer regarding Owner's use or occupancy of the Work following Substantial Completion, review the builder's risk insurance policy with respect to the end of the builder's risk coverage, and confirm the transition to coverage of the Work under a permanent property insurance policy held by Owner. Unless Owner and Contractor agree otherwise in writing, Owner shall bear responsibility for security, operation, protection of the Work, property insurance, maintenance, heat, and utilities upon Owner's use or occupancy of the Work.
- E. After Substantial Completion the Contractor shall promptly begin work on the punch list of items to be completed or corrected prior to final payment. In appropriate cases Contractor may submit monthly Applications for Payment for completed punch list items, following the progress payment procedures set forth above.
- F. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the punch list.

#### 15.04 *Partial Use or Occupancy*

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without

significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:

1. At any time, Owner may request in writing that Contractor permit Owner to use or occupy any such part of the Work that Owner believes to be substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 15.03.A through 15.03.E for that part of the Work.
2. At any time, Contractor may notify Owner and Engineer in writing that Contractor considers any such part of the Work substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 15.03 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.
4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 6.04 regarding builder's risk or other property insurance.

#### 15.05 *Final Inspection*

- A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work, or agreed portion thereof, is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

#### 15.06 *Final Payment*

##### A. *Application for Payment*

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, annotated record documents (as provided in Paragraph 7.12), and other documents, Contractor may make application for final payment.
2. The final Application for Payment must be accompanied (except as previously delivered) by:
  - a. all documentation called for in the Contract Documents;
  - b. consent of the surety, if any, to final payment;
  - c. satisfactory evidence that all title issues have been resolved such that title to all Work, materials, and equipment has passed to Owner free and clear of any Liens or other title defects, or will so pass upon final payment.



- d. a list of all duly pending Change Proposals and Claims; and
  - e. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of the Work, and of Liens filed in connection with the Work.
- 3. In lieu of the releases or waivers of Liens specified in Paragraph 15.06.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (a) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (b) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien, or Owner at its option may issue joint checks payable to Contractor and specified Subcontractors and Suppliers.
- B. *Engineer's Review of Final Application and Recommendation of Payment:* If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract have been fulfilled, Engineer will, within 10 days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of final payment and present the final Application for Payment to Owner for payment. Such recommendation will account for any set-offs against payment that are necessary in Engineer's opinion to protect Owner from loss for the reasons stated above with respect to progress payments. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.
- C. *Notice of Acceptability:* In support of its recommendation of payment of the final Application for Payment, Engineer will also give written notice to Owner and Contractor that the Work is acceptable, subject to stated limitations in the notice and to the provisions of Paragraph 15.07.
- D. *Completion of Work:* The Work is complete (subject to surviving obligations) when it is ready for final payment as established by the Engineer's written recommendation of final payment and issuance of notice of the acceptability of the Work.
- E. *Final Payment Becomes Due:* Upon receipt from Engineer of the final Application for Payment and accompanying documentation, Owner shall set off against the amount recommended by Engineer for final payment any further sum to which Owner is entitled, including but not limited to set-offs for liquidated damages and set-offs allowed under the provisions of this Contract with respect to progress payments. Owner shall pay the resulting balance due to Contractor within 30 days of Owner's receipt of the final Application for Payment from Engineer.

#### 15.07 *Waiver of Claims*

- A. By making final payment, Owner waives its claim or right to liquidated damages or other damages for late completion by Contractor, except as set forth in an outstanding Claim,

appeal under the provisions of Article 17, set-off, or express reservation of rights by Owner. Owner reserves all other claims or rights after final payment.

- B. The acceptance of final payment by Contractor will constitute a waiver by Contractor of all claims and rights against Owner other than those pending matters that have been duly submitted as a Claim, or appealed under the provisions of Article 17.

#### 15.08 *Correction Period*

- A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the Supplementary Conditions or the terms of any applicable special guarantee required by the Contract Documents), Owner gives Contractor written notice that any Work has been found to be defective, or that Contractor's repair of any damages to the Site or adjacent areas has been found to be defective, then after receipt of such notice of defect Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:
  - 1. correct the defective repairs to the Site or such adjacent areas;
  - 2. correct such defective Work;
  - 3. remove the defective Work from the Project and replace it with Work that is not defective, if the defective Work has been rejected by Owner, and
  - 4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others, or to other land or areas resulting from the corrective measures.
- B. Owner shall give any such notice of defect within 60 days of the discovery that such Work or repairs is defective. If such notice is given within such 60 days but after the end of the correction period, the notice will be deemed a notice of defective Work under Paragraph 7.17.B.
- C. If, after receipt of a notice of defect within 60 days and within the correction period, Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. Contractor shall pay all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others). Contractor's failure to pay such costs, losses, and damages within 10 days of invoice from Owner will be deemed the start of an event giving rise to a Claim under Paragraph 12.01.B, such that any related Claim must be brought within 30 days of the failure to pay.
- D. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.
- E. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this paragraph, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

- F. Contractor's obligations under this paragraph are in addition to all other obligations and warranties. The provisions of this paragraph are not to be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

## **ARTICLE 16—SUSPENSION OF WORK AND TERMINATION**

### **16.01 *Owner May Suspend Work***

- A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by written notice to Contractor and Engineer. Such notice will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be entitled to an adjustment in the Contract Price or an extension of the Contract Times directly attributable to any such suspension. Any Change Proposal seeking such adjustments must be submitted no later than 30 days after the date fixed for resumption of Work.

### **16.02 *Owner May Terminate for Cause***

- A. The occurrence of any one or more of the following events will constitute a default by Contractor and justify termination for cause:
1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment, or failure to adhere to the Progress Schedule);
  2. Failure of Contractor to perform or otherwise to comply with a material term of the Contract Documents;
  3. Contractor's disregard of Laws or Regulations of any public body having jurisdiction; or
  4. Contractor's repeated disregard of the authority of Owner or Engineer.
- B. If one or more of the events identified in Paragraph 16.02.A occurs, then after giving Contractor (and any surety) 10 days' written notice that Owner is considering a declaration that Contractor is in default and termination of the Contract, Owner may proceed to:
1. declare Contractor to be in default, and give Contractor (and any surety) written notice that the Contract is terminated; and
  2. enforce the rights available to Owner under any applicable performance bond.
- C. Subject to the terms and operation of any applicable performance bond, if Owner has terminated the Contract for cause, Owner may exclude Contractor from the Site, take possession of the Work, incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere, and complete the Work as Owner may deem expedient.
- D. Owner may not proceed with termination of the Contract under Paragraph 16.02.B if Contractor within 7 days of receipt of notice of intent to terminate begins to correct its failure to perform and proceeds diligently to cure such failure.
- E. If Owner proceeds as provided in Paragraph 16.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds the cost to complete the Work, including all related claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects,

attorneys, and other professionals) sustained by Owner, such excess will be paid to Contractor. If the cost to complete the Work including such related claims, costs, losses, and damages exceeds such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this paragraph, Owner shall not be required to obtain the lowest price for the Work performed.

- F. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue, or any rights or remedies of Owner against Contractor or any surety under any payment bond or performance bond. Any retention or payment of money due Contractor by Owner will not release Contractor from liability.
- G. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 6.01.A, the provisions of that bond will govern over any inconsistent provisions of Paragraphs 16.02.B and 16.02.D.

#### 16.03 *Owner May Terminate for Convenience*

- A. Upon 7 days' written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):
  - 1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
  - 2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses; and
  - 3. other reasonable expenses directly attributable to termination, including costs incurred to prepare a termination for convenience cost proposal.
- B. Contractor shall not be paid for any loss of anticipated profits or revenue, post-termination overhead costs, or other economic loss arising out of or resulting from such termination.

#### 16.04 *Contractor May Stop Work or Terminate*

- A. If, through no act or fault of Contractor, (1) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (2) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (3) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon 7 days' written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the contract and recover from Owner payment on the same terms as provided in Paragraph 16.03.
- B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, 7 days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The

provisions of this paragraph are not intended to preclude Contractor from submitting a Change Proposal for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this paragraph.

## **ARTICLE 17—FINAL RESOLUTION OF DISPUTES**

### **17.01 *Methods and Procedures***

- A. *Disputes Subject to Final Resolution:* The following disputed matters are subject to final resolution under the provisions of this article:
  - 1. A timely appeal of an approval in part and denial in part of a Claim, or of a denial in full, pursuant to Article 12; and
  - 2. Disputes between Owner and Contractor concerning the Work, or obligations under the Contract Documents, that arise after final payment has been made.
- B. *Final Resolution of Disputes:* For any dispute subject to resolution under this article, Owner or Contractor may:
  - 1. elect in writing to invoke the dispute resolution process provided for in the Supplementary Conditions;
  - 2. agree with the other party to submit the dispute to another dispute resolution process; or
  - 3. if no dispute resolution process is provided for in the Supplementary Conditions or mutually agreed to, give written notice to the other party of the intent to submit the dispute to a court of competent jurisdiction.

## **ARTICLE 18—MISCELLANEOUS**

### **18.01 *Giving Notice***

- A. Whenever any provision of the Contract requires the giving of written notice to Owner, Engineer, or Contractor, it will be deemed to have been validly given only if delivered:
  - 1. in person, by a commercial courier service or otherwise, to the recipient's place of business;
  - 2. by registered or certified mail, postage prepaid, to the recipient's place of business; or
  - 3. by e-mail to the recipient, with the words "Formal Notice" or similar in the e-mail's subject line.

### **18.02 *Computation of Times***

- A. When any period of time is referred to in the Contract by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

18.03 *Cumulative Remedies*

- A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract. The provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

18.04 *Limitation of Damages*

- A. With respect to any and all Change Proposals, Claims, disputes subject to final resolution, and other matters at issue, neither Owner nor Engineer, nor any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, shall be liable to Contractor for any claims, costs, losses, or damages sustained by Contractor on or in connection with any other project or anticipated project.

18.05 *No Waiver*

- A. A party's non-enforcement of any provision will not constitute a waiver of that provision, nor will it affect the enforceability of that provision or of the remainder of this Contract.

18.06 *Survival of Obligations*

- A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract, as well as all continuing obligations indicated in the Contract, will survive final payment, completion, and acceptance of the Work or termination of the Contract or of the services of Contractor.

18.07 *Controlling Law*

- A. This Contract is to be governed by the law of the state in which the Project is located.

18.08 *Assignment of Contract*

- A. Unless expressly agreed to elsewhere in the Contract, no assignment by a party to this Contract of any rights under or interests in the Contract will be binding on the other party 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.

18.09 *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.

18.10 *Headings*

- A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

## **DIVISION 1**

# **GENERAL REQUIREMENTS**

**SECTION 01010**  
**SUMMARY OF THE WORK**



## **SECTION 01010 - SUMMARY OF THE WORK**

### **PART 1 - GENERAL**

#### **1.01 DESCRIPTION**

**A. Work Included:**

1. The “Project”, of which the “Work” of this Contract is a part of, is titled “STONINGTON TOWN DOCK NORTH DOCK REHABILITATION”. The Work consists of:
  - a. Marine Construction including the demolition of the existing pier to the limits that are identified on the Contract Drawings and the construction of a timber pier including; timber and steel piles, pile caps, stingers, access stairs, concrete and miscellaneous stone work.
  - b. Site Construction including offsite disposal of all removed materials; site preparation, sedimentation and erosion control, earthwork, paving and markings, site improvements; installation of concrete.
2. The Work also includes those items required by the Contractor to maintain safe operation and to achieve access to the site without causing interruption at the surrounding facilities during the course of construction.

**B. Related Work:**

1. Documents affecting the work of this Section include, but are not necessarily limited to Section 00710, the General Conditions and Sections in Division 1 of these Specifications.

**C. Contract Documents consist of the following:**

1. This Project Manual, including all Addenda made during the bid process and documents submitted by the successful bidder including the bid.
2. Drawings title “Pier Rehabilitation.”

**END OF SECTION**

**SECTION 01045**  
**CUTTING AND PATCHING**

## **SECTION 01045 - CUTTING AND PATCHING**

### **PART 1 – GENERAL**

#### **1.1 SECTION INCLUDES**

- A. Requirements and limitations for cutting and patching of Work

#### **1.2 RELATED SECTION**

- A. Section 01010 – Summary of Work: Work by Owner or by separate contractors
  - 1. Cutting and patching incidental to work of the Section.
  - 2. Advance notification to other Sections of openings required in work of those Sections.
  - 3. Limitations on cutting mechanical or electrical systems.

#### **1.3 SUBMITTALS**

- A. Submit written request in advance of cutting or alteration which affects:
  - 1. Structural integrity of any element of Project.
  - 2. Integrity of weather-exposed or moisture-resistant element.
  - 3. Efficiency, maintenance or safety of any operational element.
  - 4. Visual qualities of sight exposed elements.
  - 5. Work of Owner or separate contractor.
- B. Include in request:
  - 1. Location and description of affected work.
  - 2. Necessity for cutting or alteration.
  - 3. Description of proposed work and products to be used.
  - 4. Alternatives to cutting and patching.
  - 5. Effect on work of Owner or separate contractor.
  - 6. Written permission of affected separate contractor.
  - 7. Date and time work will be executed.

### **PART 2 – PRODUCTS**

#### **2.1 MATERIALS**

- A. Primary Products: Those required for original installation.
- B. Product Substitution: For any proposed change in materials, submit request for substitution under provisions of Section 00710.

### PART 3 – EXECUTION

#### 3.1 EXAMINATION

- A. Inspect existing conditions prior to commencing Work, including elements subject to damage or movement during cutting and patching.
- B. After uncovering existing work, inspect conditions affecting performance of work.
- C. Beginning of cutting or patching means acceptance of existing conditions.

#### 3.2 REPARATION

- A. Provide temporary supports to ensure structural integrity of the Work. Provide devices and methods to protect other portions of Project from damage.
- B. Provide protection from elements for areas which may be exposed by uncovering work.

#### 3.3 CUTTING AND PATCHING

- A. Execute cutting, fitting and patching to complete work.
- B. Fit products together to integrate with other work.
- C. Uncover work to install ill-timed work.
- D. Remove and replace defective or non-conforming work.
- E. Remove samples of installed work for testing when requested.
- F. Provide openings in the work for penetration of mechanical and electrical work.

#### 3.4 PERFORMANCE

- A. Execute work by methods to avoid damage to other Work, and which will provide appropriate surfaces to receive patching and finishing.
- B. Restore work with new products in accordance with requirements of Contract Documents.

### PART 4 - COMPENSATION

#### 4.1 Measurement and Payment

- A. Include in the Contract Sum all costs for Work under this Section in the quantity shown on the Contract Drawings.
- B. No separate payment will be made for Work performed under this Section.

### **END OF SECTION**

**SECTION 01050**  
**FIELD ENGINEERING**

## **SECTION 01050 - FIELD ENGINEERING**

### **PART 1 – GENERAL**

#### **1.01 DESCRIPTION**

- A. Work included: Provide such field engineering services as are required for proper completion of the Work including, but not necessarily limited to:
  - 1. Establishing and maintaining lines and levels;
  - 2. Installation of vertical and horizontal control points;
  - 3. Structural design of shores, forms, and similar items provided by the Contractor as part of his means and methods of construction.
- B. Related work:
  - 1. Documents affecting work of this Section include, but are not necessarily limited to Section 00710 and Sections in Division 1 of these Specifications.
  - 2. Additional requirements for field engineering also may be described in other Sections of these Specifications.

#### **1.02 QUALITY ASSURANCE**

- A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

#### **1.03 SUBMITTALS**

- A. Upon request of the Owner, submit:
  - 1. Data demonstrating qualifications of persons proposed to be engaged for field engineering services.
  - 2. Documentation verifying accuracy of field engineering work.
  - 3. Certification, signed by the Contractor's retained field engineer, certifying that elevations and locations of improvements are in conformance or non-conformance with requirements of the Contract Documents.

### **PART 2 – PRODUCTS**

#### **2.01 MATERIALS**

- A. Provide materials, not specifically described but required for a complete and proper execution of the Work, as selected by the Contractor subject to the review of the Owner.

### PART 3 – EXECUTION

#### 3.01 PROCEDURES

- A. In addition to procedures directed by the Contractor for proper performance of the Contractor's responsibilities:
  - 1. Locate and protect control points before starting work on the site.
    - a. Contractor shall install control points and provide, in clear notation, elevations of North American Vertical Datum 1988 (NAVD 88).
  - 2. Preserve permanent reference points during progress of the Work.
  - 3. Do not change or relocate reference points or items of the Work without specific direction from the Owner.
  - 4. Promptly advise the Owner when a reference point is lost or destroyed, or requires relocation because of other changes in the Work.
    - a. Upon direction of the Owner, require the field engineer to replace reference stakes or markers.
    - b. Locate such replacements according to the original survey control.

### PART 4 - COMPENSATION

#### 4.01 MEASUREMENT AND PAYMENT

- A. Include in the Contract Sum all costs for Work under this Section in the quantity shown on the Contract Drawings.
- B. No separate payment will be made for Work performed under this Section.

**END OF SECTION**

**SECTION 01200**  
**PROJECT MEETINGS**



## **SECTION 01200 - PROJECT MEETINGS**

### **PART 1 - GENERAL**

#### **1.01 DESCRIPTION**

- A. Work included: To enable orderly review during progress of the Work, and to provide for systematic discussion of problems, the Engineer will conduct project meetings throughout the construction period.
- B. Related work:
  - 1. Documents affecting work of this Section include, but are not necessarily limited to Section 00710, Sections in Division 1 of these Specifications.
  - 2. The Contractor's relations with his subcontractors and materials suppliers, and discussions relative thereto, are the Contractor's responsibility and normally are not part of project meetings content.

#### **1.02 QUALITY ASSURANCE**

- A. For those persons designated by the Contractor to attend and participate in project meetings, provide required authority to commit the Contractor to solutions agreed upon in the project meetings.

#### **1.03 SUBMITTALS**

- A. Agenda items: To the maximum extent practicable, advise the Engineer at least 24 hours in advance of project meetings regarding items to be added to the agenda.
- B. Minutes:
  - 1. The Engineer will compile minutes of each project meeting, and will furnish one copy to the Contractor and required copies to the Owner.
  - 2. Recipients of copies may make and distribute such other copies as they wish.

### **PART 2 - PRODUCTS**

(No products are required in this Part)

### **PART 3 - EXECUTION**

#### **3.01 MEETING SCHEDULE**

- A. Except as noted below for Pre-construction Meeting, project meetings will be held bi-weekly.

- B. Coordinate as necessary to establish mutually acceptable schedule for meetings.

### 3.02 MEETING LOCATION

- A. The Engineer will establish meeting location. To the maximum extent practicable, meetings will be held at the job site.

### 3.03 PRE-CONSTRUCTION MEETING

- A. Pre-construction Meeting will be scheduled to be held within twenty-one (21) days after the Owner has issued the Contract.
  - 1. Provide attendance by authorized representatives of the Contractor, including the Contractor's Representative (reference Section 00710), and major subcontractors.
  - 2. The Engineer will advise other interested parties, including the Owner, and request their attendance.
- B. Minimum agenda: Data will be distributed and discussed on at least the following items.
  - 1. Organizational arrangement of Contractor's forces and personnel, and those of subcontractors, materials suppliers, and Engineer.
  - 2. Channels and procedures for communication.
  - 3. Construction schedule, including sequence of critical work.
  - 4. Contract Documents, including distribution of required copies of original Documents and revisions.
  - 5. Processing of Shop Drawings and other data submitted to the Engineer for review.
  - 6. Processing of Bulletins, field decisions, and Change Orders.
  - 7. Rules and regulations governing performance of the Work; and
  - 8. Procedures for safety and first aid, security, quality control, housekeeping, and related matters.

### 3.04 PROJECT MEETINGS

- A. Attendance:

1. As a minimum, the Contractor's Representative (reference Section 00710) is required to represent the Contractor at project meetings throughout progress of the Work.
  2. Subcontractors, materials suppliers, and others may be invited to attend those project meetings in which their aspect of the Work is involved.
- B. Minimum agenda:
1. Review and revise as necessary the minutes of previous meetings.
  2. Review progress of the Work since last meeting, including status of submittals for review.
  3. Identify problems that impede planned progress.
  4. Develop corrective measures and procedures to regain planned schedule.
  5. Complete other current business.
- C. Revisions to minutes:
1. Unless published minutes are challenged in writing within two days of issuance, they will be accepted as properly stating the activities and decisions of the meeting.
  2. Persons challenging published minutes shall submit the challenge to the Engineer in writing.
  3. Challenge to minutes shall be settled as priority portion of "old business" at the next regularly scheduled meeting.

#### PART 4 - COMPENSATION

##### 4.01 MEASUREMENT AND PAYMENT

- A. Include in the Contract Sum all costs for Work under this Section in the quantity shown on the Contract Drawings.
- B. No separate payment will be made for Work performed under this Section.

**END OF SECTION**

**SECTION 01401**  
**SPECIAL INSPECTIONS**

## **SECTION 01401 – SPECIAL INSPECTIONS**

### **PART 1 – GENERAL**

#### **1.01 DESCRIPTION**

**A. Work Included:**

1. Special Inspections and Structural Testing shall be in accordance with the Connecticut State Building Code.
2. Special Inspections shall be required for the following:
  - A. Soils & Foundations
  - B. Cast-In-Place Concrete
  - C. Structural Steel
  - D. Wood Construction

**B. Related work:**

1. Documents affecting work of this Section include, but are not necessarily limited to Sections in Division 1 of these Specifications, and Section 01410

#### **1.02 QUALIFICATIONS**

- A. The Special Inspector shall be a Professional Engineer licensed in the State of Connecticut who is approved by the Structural Engineer of Record (SER) and Building Official.
- B. The testing laboratory shall be NVLAP accredited and approved by the Structural Engineer of Record (SER) and Building Official.
- C. The testing laboratory shall maintain a full time Professional Engineer licensed in the State of Connecticut on staff who shall stamp and sign all test reports. The Professional Engineer shall be responsible for the training of the testing technicians and shall be in responsible charge of the field and laboratory testing operations.
- D. Special Inspections shall be performed by inspectors who are either Professional Engineers (P.E.) or Engineers-In-Training (EIT) with an education and background in structural engineering except as indicated below.
  1. Special Inspections of soils and foundations may be performed by inspectors who are either Professional Engineers (P.E.) or Engineers-In-

Training (EIT) with an education and background in geotechnical engineering.

2. Technicians performing tests of concrete shall be ACI certified *Concrete Field Testing Technicians - Grade 1*.
3. Inspectors performing inspections of concrete work may be ACI certified *Concrete Construction Inspectors* in lieu of being a P.E. or EIT.
4. Technicians performing tests or inspections of welds shall be AWS *Certified Welding Inspectors*, technicians performing ultrasonic testing shall also be certified as an ASNT-TC Level II or Level III technician.
5. Technicians performing standard tests described by specific ASTM Standards shall have training in the performance of such tests and must be able to demonstrate either by oral or written examination competence for the test to be conducted. They shall be under the supervision of a Professional Engineer and shall not be permitted to independently evaluate test results.

#### 1.03 SUBMITTALS

- A. The Special Inspector and Testing Laboratory shall submit to the SER and Building Official for review a copy of their qualifications which shall include the names and qualifications of each of the individual inspectors and technicians who will be performing inspections or tests.
- B. The Special Inspector and Testing Laboratory shall disclose any past or present business relationship or potential conflict of interest with the Contractor or any of the Subcontractors whose work will be inspected or tested.

### PART 2 - PRODUCTS

#### 2.01 PAYMENT FOR TESTING

- A. The Owner shall engage and pay for the services of the Special Inspector and Testing Laboratory.
- B. If any materials which require Special Inspections are fabricated in a plant which is not located in Connecticut, the Contractor shall be responsible for the travel expenses of the Special Inspector or Testing Laboratory.
- C. The Contractor shall be responsible for the cost of any retesting or reinspection of work which fails to comply with the requirements of the Contract Documents.

## 2.02 CONTRACTOR RESPONSIBILITIES

- A. The Contractor shall cooperate with the Special Inspector and his agents so that the Special Inspections and testing may be performed without hindrance.
- B. The Contractor shall review the *Statement of Special Inspections* and shall be responsible for coordinating and scheduling inspections and tests. The Contractor shall notify the Special Inspector or Testing Laboratory at least 24 hours in advance of a required inspection or test. Uninspected work that required inspection may be rejected solely on that basis.
- C. The Contractor shall provide incidental labor and facilities to provide access to the work to be inspected or tested, to obtain and handle samples at the site or at source of products to be tested, to facilitate tests and inspections, storage and curing of test samples.
- D. The Contractor shall keep at the project site the latest set of construction drawings, field sketches, approved shop drawings, and specifications for use by the inspectors and testing technicians.
- E. The Special Inspection program shall in no way relieve the Contractor of his obligation to perform work in accordance with the requirements of the Contract Documents or from implementing an effective Quality Control program.
- F. The Contractor shall be solely responsible for construction site safety.

## 2.03 SCHEDULE OF INSPECTIONS AND TESTS

- A. Required inspections and tests are described in the attached Schedule of Special Inspections and in the individual specification Sections for the items to be inspected or tested.

## 2.04 LIMITS ON AUTHORITY

- A. The Special Inspector or Testing Laboratory may not release, revoke, alter, or enlarge on the requirements of the Contract Documents.
- B. The Special Inspector or Testing Laboratory will not have control over the Contractor's means and methods of construction.
- C. The Special Inspector or Testing Laboratory shall not be responsible for construction site safety.
- D. The Special Inspector or Testing Laboratory has no authority to stop the work.

### PART 3 - EXECUTION

#### 3.01 STATEMENT OF SPECIAL INSPECTIONS

- A. The *Statement of Special Inspections* will be prepared by the Structural Engineer of Record (SER).
- B. CEPP/SEC Form 101 - 2004 shall be used for the *Statement of Special Inspections*.
- C. The *Statement of Special Inspections* shall be submitted with the application for Building Permit.

#### 3.02 RECORDS AND REPORTS

- A. Detailed reports shall be prepared of each inspection or test. Reports shall include:
  - 1. date of test or inspection
  - 2. name of inspector or technician
  - 3. location of specific areas tested or inspected
  - 4. description of test or inspection and results
  - 5. applicable ASTM standard
  - 6. weather conditions
  - 7. Professional Engineer's stamp and signature
- B. Interim reports shall be submitted at the end of each week which include reports for all inspections and tests performed that week.
- C. Reports shall be addressed to the Building Official with copies sent to the SER, Architect, and Contractor.
- D. Any discrepancies from the Contract Documents found during a Special Inspection shall be immediately reported to the Contractor. If the discrepancies are not corrected, the Special Inspector shall notify the SER and Building Official.
- E. The Testing Laboratory shall immediately notify the SER by telephone or fax of any test results which fail to comply with the requirements of the Contract Documents.
- F. Reports shall be submitted within 7 days of the inspection or test. Hand written reports may be submitted if final typed copies are not available.
- G. At the completion of the work requiring Special Inspections, each inspection agency and testing laboratory shall provide a statement to the Special Inspector that all work was completed in substantial conformance with the Contract Documents and that all appropriate inspections and tests were performed.



### 3.03 FINAL REPORT OF SPECIAL INSPECTIONS

- A. The *Final Report of Special Inspections* shall be completed by the Special Inspector and submitted to the SER and Building Official prior to the issuance of a Certificate of Use and Occupancy.
- B. CEPP/SEC Form 102 - 2001 shall be used for the *Final Report of Special Inspections*.
- C. The *Final Report of Special Inspections* will certify that all required inspections have been performed and will itemize any discrepancies which were not corrected or resolved.

### PART 4 - COMPENSATION

#### 4.01 MEASUREMENT AND PAYMENT

- A. Include in the Contract Sum all costs for Work under this Section in the quantity shown on the Contract Drawings.
- B. No separate payment will be made for Work performed under this Section.

**END OF SECTION**

**SECTION 01410**  
**LABORATORY TESTING SERVICES**

## **SECTION 01410 – LABORATORY TESTING SERVICES**

### **PART 1 - GENERAL**

#### **1.01 DESCRIPTION**

**A. Work Included:**

1. Cooperate with the Owner's selected testing agency and all others responsible for testing and inspecting the Work.
2. Provide such other testing and inspecting as specified by the Contractor in this Section and/or elsewhere in the Contract Documents.

**B. Related Work:**

1. Documents affecting work of this Section include, but are not necessarily limited to Section 00710, Sections in Division 1 of these Specifications.
2. Requirements for testing may be described in various Sections of these Specifications.
3. Where no testing requirements are described, but the Structural Engineer of Record (SER) decides that testing is required, the SER may require such testing to be performed under current pertinent standards for testing. Payment for such testing will be made as described in this Section.

**C. Work Not Included:**

1. Selection of testing laboratory: The Owner will select a pre-qualified independent testing laboratory.
2. Payment for initial testing: The Owner will pay for all initial services of the testing laboratory as further described in Article 2.01 of this Section.

#### **1.02 QUALITY ASSURANCE**

- A. The testing laboratory will be qualified to the SER's acceptance in accordance with ASTM E329.
- B. Testing, when required, will be in accordance with all pertinent codes and regulations and with selected standards of the American Society for Testing and Materials.

#### **1.03 PRODUCT HANDLING**

- A. Promptly process and distribute required copies of test reports and related instructions to assure necessary re-testing and replacement of materials with the

least possible delay in progress of the Work.

## PART 2 - PRODUCTS

### 2.01 PAYMENT FOR TESTING

- A. Initial services: The Owner will pay for initial testing services requested by the SER.
- B. Retesting: When initial tests indicate non-compliance with the Contract Documents, subsequent retesting occasioned by the non-compliance shall be performed by the same testing agency, and costs thereof plus administrative fees will be deducted by the Owner from the Contract Sum.

### 2.02 CODE COMPLIANCE TESTING

- A. Inspections and tests required by codes or ordinances, or by a plan approval authority, and which are made by a legally constituted authority, shall be the responsibility of and shall be paid for by the Contractor, unless otherwise provided in the Contract Documents.

### 2.03 CONTRACTOR'S CONVEINENCE TESTING

- A. Inspecting and testing performed exclusively for the Contractor's convenience shall be the sole responsibility of the Contractor.

## PART 3 - EXECUTION

### 3.01 COORPERATION WITH TESTING LABORATORY

- A. Representatives of the testing laboratory shall have access to the Work at all times and at all locations where the Work is in progress. Provide facilities for such access to enable the laboratory to perform its functions properly.

### 3.02 TAKING SPECIMENS

- A. All specimens and samples for testing, unless otherwise provided in the Contract Documents, shall be taken by the testing personnel. All sampling equipment and personnel will be provided by the testing laboratory. All deliveries of specimens and samples to the testing laboratory will be performed by the testing laboratory.

### 3.03 SCHEDULES FOR TESTING

- A. Establishing schedule:
  - 1. By advance discussion with the testing laboratory selected by the Owner, determine the time require for the laboratory to perform its tests and to issue each of its findings.

2. Provide all required time within the construction schedule.
- B. Revising schedule: When changes of construction schedule are necessary during construction, coordinate all such changes with the testing laboratory as required.
- C. Adherence to schedule: When the testing laboratory is ready to test according to the established schedule, but is prevented from testing or taking specimens due to incompleteness of the Work, all extra charges for testing attributable to the delay shall not be borne by the Owner and may be withheld from payments due the Contractor.

#### PART 4 - COMPENSATION

##### 4.01 MEASUREMENT AND PAYMENT

- A. Include in the Contract Sum all costs for Work under this Section in the quantity shown on the Contract Drawings.
- B. No separate payment will be made for Work performed under this Section.

**END OF SECTION**

**DIVISION 2**  
**SITE CONSTRUCTION**

**SECTION 02060**  
**ENVIRONMENTAL PROTECTION**

## **SECTION 02060 – ENVIRONMENTAL PROTECTION**

### **PART 1 - GENERAL**

- 1.01 **GENERAL:** This section covers prevention of environmental pollution and damage as a result of construction and other operations under this contract and for those measures set forth in other Technical Provisions of these specifications.
- A. For the purpose of this specification, environmental pollution and damage is defined as the presence of chemical, physical, or biological elements or agents which adversely affect human health or welfare; unfavorably alter ecological balances of importance to human life; affect other species of importance to man; or degrade the utility of the environment for aesthetic, cultural and/or historical purposes.
  - B. The control of environmental pollution and damage requires consideration of air, water, and land, and includes management of visual aesthetics, noise, solid waste, radiant energy and radioactive materials, as well as other pollutants.
  - C. This project is covered by permits from the CT DEEP and US Army Corps of Engineers and the contractor is responsible for complying with all stipulated conditions therein.
- 1.02 **QUALITY CONTROL:** The Contractor shall establish and maintain quality control for environmental protection of all items set forth herein. The Contractor shall record on daily reports any issues that arise related to this section and / or problems in complying with laws, regulations and ordinances and corrective action taken.
- 1.03 **IMPLEMENTATION:** The Contractor shall familiarize himself with all Federal, State and local laws, regulations and PERMIT conditions concerning environmental protection, pollution control including considerations set forth in section 1.01 above, and abatement that are applicable to the proposed operations and the requirements imposed by those laws, regulations and permits. Prior to commencement of the work the Contractor will be required to meet with the Town of Stonington Director of Public Works, and Engineer as necessary, to develop a mutual understanding relative to compliance and administration of the environmental protection program.
- 1.04. **NOTIFICATION:** In the event of Environmental Damage or Pollution the contractor shall immediately protect the environmental resources by the best means possible and notify the Town of Stonington Director of Public Works and Engineer and appropriate agencies as soon as possible. The Director of Public Works or Engineer will notify the Contractor verbally, and confirm, in writing, of any observed noncompliance with the applicable Federal, State and local laws or regulations and permits. The Contractor shall, after receipt of such notice, inform the Director of Public Works and Engineer of proposed corrective action and take such action as may be approved. If the Contractor fails to comply promptly, the Director of Public Works / Engineer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No contract time extensions shall be granted or costs or damages allowed to the Contractor for any such suspension.



## PART 2 – MATERIALS

- 2.01 Materials utilized must be top quality suited for the specific purpose and be approved for usage in site and project specific conditions and circumstances. Submission for review by the Director of Public Works and / or Engineer must be in adequate time to allow an appropriate review of the materials and the proposed application.

## PART 3 - CONSTRUCTION METHODS

- 3.01 PROTECTION OF ENVIRONMENTAL RESOURCES: The environmental resources within the project boundaries and those which might be affected outside the limits of permanent work under this contract shall be protected during the entire period of this contract. The Contractor shall confine his activities to areas defined by the drawings and specifications. Environmental protection shall be interpreted as stated in the following subparagraphs.

A. PROTECTION OF LAND RESOURCES: Prior to the beginning of any work the Engineer will identify areas and resources of concern to be preserved within the Contractor's work area.

B. PROTECTION OF WATER RESOURCES: The Contractor shall keep construction activities under surveillance and control to avoid pollution of the water and to minimize interference with, disturbance to and damage of fish and wildlife habitat in accordance with conditions of the permits. Contractor shall maintain a floating boom waterward of the construction activities when and as necessary to contain pollutants released during the site work. Contractor shall also provide absorbent cleanup pads to remove hydrocarbons from the water surface, and shall store and dispose of waste pads in accordance with applicable regulations. Contractor shall add and remove pads as required by the Director of Public Works or Engineer. The Contractor shall also maintain such controls in good working order.

C. PROTECTION OF AIR QUALITY: The Contractor shall keep all construction and other related activities under surveillance, management and control to minimize air pollution. All activities, equipment, processes, and work operated or performed by the Contractor in accomplishing the specified construction shall be in strict accordance with regulations of the City, State and all Federal noise emission and performance laws and standards. Ambient Air Quality Standards set by the Environmental Protection Agency shall be maintained for all construction operations and activities. Special management techniques shall be implemented, as necessary, to control air pollution by the construction activities which are included in the contract. Hydrocarbons and carbon monoxide emissions from equipment shall be controlled to Federal and State allowable limits at all times. Odors shall be controlled to the extent practicable at all times for all construction activities, processing and preparation of materials. Material odors, are not subject to these controls.

- D. NOISE: The Contractor shall keep construction activities under surveillance and control to minimize damage to the environment by noise. The Contractor shall use methods and devices to control noise emitted by equipment in accordance with local ordinances as applicable.
- 3.02 CONTAMINATED SOIL HANDLING: If contaminated soils are encountered on the site during construction, the Contractor shall provide appropriate environmental and Worker Health & Safety controls in the handling of site soils. Site soils are not to be excavated but if they are to remove pile-driving obstructions, they will remain on site, and the Director of public Works and / or Engineer will direct the use of these soils for site grading activities. Environmental considerations will include diverting storm water runoff from these soils, and containment of hydrocarbons released from soils and present in storm water runoff. Site workers will be directed to minimize contact with the excavated soils, and the Contractor shall provide a written work plan outlining measures to comply with this requirement. No further site work in the area shall be begun until this report has been received and accepted.
- 3.03 POST CONSTRUCTION CLEANUP: The Contractor shall clean up all areas used for construction, storage, staging, delivery, etc., upon completion of the work and before a final inspection is called for and prior to submission of final payment application.
- 3.04 RESTORATION OF DAMAGE: The Contractor shall restore all land features including bulkhead or ramp facilities or staging, storage or other areas damaged or destroyed during operations outside the limits of the approved work areas. This work will be accomplished at the Contractors expense.
- 3.05 MAINTENANCE OF POLLUTION CONTROL FACILITIES: the contractor shall maintain any and all portable pollution control devices and facilities for the duration of the contract or for the length of time construction activities create the particular pollutant or adverse environmental impact.

#### PART 4 – METHOD OF MEASUREMENT

- 4.01 Include in the Contract Sum all costs for Work under this Section in the quantity shown on the Contract Drawings.

#### PART 5 - METHOD OF PAYMENT

- 5.01 No separate payment will be made for Work performed under this Section.

#### END OF SECTION

**SECTION 02062**  
**CONSTRUCTION BARRICADES**

## **SECTION 02062 – CONSTRUCTION BARRICADES**

### **PART 1 – GENERAL**

- 1.01 This construction project will share the site of a busy commercial Fishing Wharf and Seafood distributor with vehicle and pedestrian traffic.
- 1.02 Traffic guidance devices and barricades will be required to assure that people and vehicles are protected against inadvertent entry to the site or areas under construction during joint occupancy and fishing operations. Initially, and throughout the project, to the maximum possible extent, the Contractor will be limited to one point of access as shown.
  - A. The vehicle access drive comes in from the East edge of the site and will require a minimum 20-FT gap to not impede traffic. Site access will be secured with fencing. The work area will be bounded by timber barricades to preclude inadvertent vehicle entry and will be modified each day as necessary to assure adequacy of the barricading. Gates will have sawhorses or drums / cones.
  - B. All barricades will be continuously lit during hours of darkness whether or not the fishing and Seafood distribution operations are being conducted. All barricades will have high intensity battery powered lights with amber lenses. The wharf is not closed off or secure at night and so the barricading and inadvertent entry protection must be properly set and remain in place when the project area is not manned.

### **PART 2 – MATERIALS**

#### **2.01 Submittals**

- A. The Contractor shall submit a suitable construction barricade plan for maintaining site security against inadvertent entry.

#### **2.02 Traffic Cones**

- A. Under this item the Contractor shall furnish reflectorized orange traffic cones required on the project on the plans and as directed by the Stonington Director of Public Works or Engineer.
- B. The Contractor shall have, available on the project, a sufficient number of traffic cones to fulfill all the requirements as specified in the contract and to replace those traffic cones which have become damaged.

#### **2.03 Traffic Drums**

- A. Under this item the Contractor shall furnish traffic drums as required on the project to conform to the traffic patterns and as directed by the Director of Public Works or Engineer if necessary.

- B. The Contractor shall have, available on the project, a sufficient number of traffic drums to fulfill all the requirements as specified in the contract and to replace those which have become damaged.
- C. Traffic Drums shall be manufactured plastic or rubber devices approximately 42" in height and 18" diameter.
- D. The design of the drum will allow for the installation of barricade warning lights.
- E. If the device is other than round, the front dimension should be at least 18" and the side dimension should be at least 12".
- F. The traffic drum shall have as a minimum two 4" wide reflective orange stripes and two 6" wide reflective white stripes. The stripes shall be placed horizontally and alternated with the orange stripe on top. The alternated stripes should not touch. The sections of the traffic drum not covered with reflective sheeting shall be orange.
- G. Two classes of reflective sheeting, Type II Encapsulated Lens and Type III Microprism Reflective Sheeting, may be used on traffic drums. Only one type sheeting shall be used on a drum and all drums furnished on a construction project shall be manufactured with the same type reflective sheeting. A Materials Certificate shall be required.
- H. The drum shall be stabilized with the use of sandbags or other suitable means to prevent movement due to wind.

#### 2.04 PVC Frame Barricades

PVC Frame Barricades may be utilized in front of the gate in lieu of drums to provide high visibility and ease of movement for access by the Contractor for daily operations.

PVC construction barricades shall consist of the following materials:

- A. The frame shall be of polyvinyl chloride pipe conforming to ASTM D 2241 for PVC 1120 or 1220, SDR21 (pressure rated 200 psi); ASTM D3034, SDR 35, Schedule 40 or an approved equal.
- B. All straight members shall be of white color.
- C. Face panels used as horizontal members shall be constructed of a suitable plastic material, .060 inch high impact styrene, anodized aluminum of no less than .025 inch thickness or a comparable substitute approved by the Engineer.
- D. All hardware shall be heavy duty in accordance with standard commercial specifications stainless steel or galvanized steel.

- E. Reflective sheeting shall conform to the requirements of US DOT.
- F. The frame shall be anchored or weighted with sandbags or other approved means to assure that it stays upright and in the proper position.

#### 2.05 Wood Timbers

- A. Wood timbers will be utilized around the perimeter of the chain link fence to prevent inadvertent vehicle or pedestrian entry into the site but not to prevent cars from driving on or off the wharf. Wood timbers barricades will be large, new or used timbers painted white with orange striping, all reflectorized and set to allow attachment of barricade lighting, the object being to create a barrier to prevent vehicle passage into the construction site.

#### 2.06 Barricade Warning Lights

- A. Barricade warning lights shall be in accordance with the requirements of the Institute of Traffic Engineers Standard for High Intensity Flashing and Steady-Burn Barricade lights.

Lens Direction Faces	1 min.
Flash Rate per minute	55 to 75
Flash Duration <sup>1</sup>	50%
Minimum Effective Intensity <sup>2</sup>	35 Candelas

- B. Type B high-intensity flashing warning lights shall be mounted on the drums, timbers sawhorses or PVC frames. Extremely hazardous site conditions within the construction area requires that the lights be mounted on barricades or other supports.
- C. Barricade warning lights are portable, lens-directed, enclosed lights.
- D. The color of the light emitted shall be yellow (amber).
- E. Lights shall be used in a flashing mode.

### PART 3 – CONSTRUCTION METHODS

- 3.01 The Contractor shall be vigilant during the progress of the work to assure that potentially hazardous situations are barricaded from public access and shall assure that barricades are maintained even after work is complete for the day. Barricades shall be weighted to prevent movement in high winds.

### 3.02 PVC Barricades

- A. The Contractor shall furnish a sufficient number of construction barricades required for the traffic patterns for all operations which are being undertaken concurrently.
- B. Alternate strips of white and orange encapsulated lens reflective sheeting shall be applied to the horizontal member.
- C. Any barricade that becomes damaged or defaced so that it is not effective, shall be replaced by the Contractor at no cost to the Town of Stonington.
- D. When the barricades are no longer required on the project, they shall be removed from property and shall remain the property of the Contractor.
- E. “Y”’s, “T”’s and elbows for joint connections shall be PVC of suitable size and strength at least equal to the main members.
- F. Wood sawhorses painted white with orange bands and with a suitable bright white, orange and black retro-reflective warning sign and suitable attachment point for lights, may be substituted for PVC frame barricades.

### 3.03 Barricade Warning Lights Should be Used as Follows

- A. The Contractor shall furnish and securely fasten the units to signs, barricades and other objects in such numbers and for such lengths of time as the Engineer or Director of Public Works may order.
- B. Portable supports for barricade warning lights shall provide a minimum mounting height of 36 inches to the bottom of the lens except on timbers.
- C. The Contractor shall maintain and relocate the units and, upon final removal, dispose of them.

### 3.04 Traffic Cones

- A. The Contractor shall furnish a sufficient number of traffic cones required for the traffic patterns for all operations which are being undertaken concurrently.
- B. Any traffic cones that are missing, damaged, or defaced so that they are not effective in accordance with the American Traffic Safety Services Association (ATSSA) guidelines contained in “Quality Standards for Work Zone Traffic Control Devices,” shall be replaced by the Contractor.

- C. When the traffic cones are no longer required on the Project they shall be removed from the site and shall remain the property of the Contractor.

### 3.05 Timbers

- A. Wood Timbers shall be a barrier against vehicle entrance installed around the perimeter of the construction site work in progress so as to prevent vehicle entrance into the construction site or possibly the harbor.

## PART 4 – METHOD OF MEASUREMENT

- 4.01 Include in the Contract Sum all costs for Work under this Section in the quantity shown on the Contract Drawings.

## PART 5 – PAYMENT

- 5.01 No separate payment will be made for Work performed under this Section.

### **END OF SECTION**



**SECTION 02070**  
**DEMOLITION AND REMOVALS**

## **SECTION 02070 – DEMOLITION AND REMOVALS**

### **PART 1 - GENERAL**

#### **1.01 DESCRIPTION OF WORK**

**A. Work Included:**

1. Carefully demolish and remove from the site those items scheduled to be so demolished and removed.
2. Carefully remove and store off or on site those items scheduled to be reused. Replace these items as indicated on the drawings such that they are undamaged and fit for their intended purpose.
3. All utility lines that are altered or relocated during the construction are to be of an equal standard to those now existing, and are to be acceptable to the Owner and the appropriate Utility Company. The Contractor is to inform and liaise with the Owner regarding all work that may effect the existing utilities. The Owner will make arrangements with the Utility Company for services to be cut-off if required during construction. The Contractor is responsible for notification of local utilities (Call Before You Dig).

**B. Related work:**

1. Documents affecting work of this Section include, but are not necessarily limited to Division 1 of these Specifications.

#### **1.02 QUALITY ASSURANCE**

- A.** Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the Work of this Section.

#### **1.03 SUBMITTALS**

- A.** Except for items specifically scheduled for reuse, demolished material shall be considered to be property of the Contractor and shall be completely removed from the job site and disposed of in legal manner. The Contractor shall submit a detailed disposal plan to the Owner. The disposal plan shall include the name, address and telephone number of the disposal site. The Contractor shall submit to the Owner a signed manifest and trip ticket stating that the debris was disposed at the stated site within 24 hours after the material has left the site.

## PART 2 - PRODUCTS

### 2.01 MATERIALS

- A. Provide materials, not specifically described but required for a complete and proper execution of the Work, as selected by the Contractor subject to the review of the Structural Engineer of Record (SER).

## PART 3 - EXECUTION

### 3.01 SURFACE CONDITIONS

- A. Examine the areas and conditions under which Work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until satisfactory conditions are corrected.

### 3.02 DEMOLITION

- A. By careful study of the Contract Documents, determine the location and extent of selective demolition to be performed.
- B. In company with the SER, visit the site and verify the extent and location of selective demolition required.
  - 1. Carefully identify limits of selective demolition.
  - 2. Secure the SER's review of the items scheduled for selective demolition.
  - 3. Demolish and remove the scheduled items.
- C. Prepare and follow an organized plan for demolition and removal of items.
  - 1. Shut off, cap, and otherwise protect existing utility lines in accordance with the requirements of the public agency or utility having jurisdiction.
  - 2. Completely remove items scheduled to be so demolished and removed, leaving surfaces clean, solid, and ready to receive new materials specified elsewhere or excavation.
  - 3. In all activities, comply with pertinent regulations of governmental agencies having jurisdiction.
- D. Exercise all necessary care so as not to damage items scheduled to remain in place for re-use.

- E. Except for items specifically scheduled for reuse or to be turned over to the Owner, demolished material shall be considered to be property of the Contractor and shall be completely removed from the job site and disposed of in accordance with all Federal, State and local regulations. Provide documentation to the Owner that material has been disposed of in such a manner.

### 3.03 REPLACEMENTS

- A. In the event of demolition or damage caused to items not so scheduled to be demolished, promptly replace such items to the approval of the Owner and at no additional cost to the Owner.

### 3.04 ALTERATIONS TO REUSED ITEMS

- A. All alterations to reused items are to be of an equal standard to their original construction, or as otherwise indicated in these Specifications. The Contractor is responsible for ensuring that the dimensions of reused items are adjusted to suit the new construction. Drawings are to be presented to the SER for review prior to making any alterations, however, this review does not relieve the Contractor of his responsibilities as indicated elsewhere in this Contract.

### 3.05 RELOCATION OF UTILITIES

- A. Relocate existing utilities as required during construction such that services to the site are maintained to the Owner's satisfaction. The Contractor is responsible for liaison with the Owner on all aspects of utility service maintenance and relocation. If replacement of utilities is undertaken by a Utility Company or others, the Contractor shall coordinate these activities with its own work.

## PART 4 - COMPENSATION

### 4.01 Measurement and Payment

- A. Include in the Contract Sum all costs for Work under this Section in the quantity shown on the Contract Drawings.
- B. No separate payment will be made for Work performed under this Section.

## **END OF SECTION**

**SECTION 02220**  
**EXCAVATING, BACKFILLING AND COMPACTING**

## **SECTION 02220 – EXCAVATING, BACKFILLING AND COMPACTING**

### **PART 1 – GENERAL**

#### **1.01 WORK SPECIFIED**

- A. Work included: Excavate, backfill, compact, and grade the site to the elevations and limits shown on the Drawings, as specified herein, and as needed to meet the requirements of the construction shown on the Contract Documents.
- B. Related work:
  - 1. Documents affecting work of this Section include, but are not necessarily limited to Sections in Division 1 of these Specifications, Section 06125, and Section 06130.

#### **1.02 QUALITY ASSURANCE**

- A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
- B. Use equipment adequate in size, capacity, and numbers to accomplish the work of this Section in a timely manner.
- C. In addition to complying with requirements of governmental agencies having jurisdiction, comply with the directions of the Structural Engineer of Record (SER).

#### **1.03 SUBMITTALS**

- A. Submit the pre-qualified list of subcontractors and the proposed schedule of unit prices to the Owner for review.
- B. Submit material gradation, moisture density curve, and representative material sample for each material proposed for use.
- C. Submit de-watering plan, if de-watering is to be performed. Include proposed intake and discharge location, containment measures for discharge, including details on size, type, and intended location of all components.

### **PART 2 – PRODUCTS**

#### **2.01 MATERIALS**

A. Granular Backfill

Where the Drawings indicate “structural fill” material, it shall meet the requirements of granular backfill as described herein. Granular backfill shall consist of broken or crushed stone, bank or crushed gravel, or mixtures thereof. A sample and grading curve is to be provided for the SER's review prior to commencing work. Make submittal in accordance with Section 00710 and Section 01340. Recycled man-made products such as asphalt and concrete are not acceptable.

1. Broken or crushed stone shall consist of sound, tough, durable stone of such size that will meet the "Grading Requirements for Granular Backfill" listed in this Section of the Specifications.
2. Bank or crushed gravel shall consist of sound, tough, durable particles of crushed or uncrushed gravel free from soft, thin, elongated or laminated pieces and organic or other deleterious substances. It shall meet the "Grading Requirements for Granular Backfill" listed in this Section of the Specifications.
3. Grading, Plasticity, Resistance to Abrasion, and Soundness Requirements for Granular Backfill - In accordance with Sub-article M.02.06, Grading A of the State of Connecticut Department of Transportation Standard Specifications for Roads, Bridges, and Incidental Construction Form 814A.:

Square Mesh Sieves	Percent passing by weight
Pass 3-1/2"	100
Pass 1-1/2"	55-100
Pass 1/4"	25-60
Pass #10	15-45
Pass #40	5-25
Pass #100	0-10
Pass #200	0-5

B. Uncontrolled Fill

Uncontrolled backfill material may consist of surplus excavated materials from the site. If borrow material is used, the material must be in accordance with Section 2.07 of State of Connecticut Department of Transportation Standard Specifications for Roads, Bridges, and Incidental Construction Form 814A with

the additional requirement that recycled man-made products such as asphalt and concrete are not acceptable.

C. Pipe Bedding Material

This material shall be sand or sandy soil, all of which passes a 3/8" sieve, and not more than ten (10) percent passes a No. 200 sieve, in accordance with Sub-article M.08.01-21 of the State of Connecticut Department of Transportation Standard Specifications for Roads, Bridges, and Incidental Construction Form 814A with the additional requirement that recycled man-made products such as asphalt and concrete are not acceptable.

D. Processed Gravel Surface

This material shall be in accordance with Sub-article M.02.03 of the State of Connecticut Department of Transportation Standard Specifications for Roads, Bridges, and Incidental Construction Form 814A with the additional requirement that recycled man-made products such as asphalt and concrete are not acceptable.

E. Other Materials

Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the review of the SER. Make submittals in accordance with Section 00710.

PART 3 – EXECUTION

3.01 INSTALLATION

A. Surface Conditions

1. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.

B. Finished Elevations and Lines

Comply with pertinent provisions of Section 01050.

C. Procedures

1. Utilities:



- a. Unless shown to be removed, protect active utility lines shown on the Drawings or otherwise made known to the Contractor prior to excavating. If damaged, repair or replace at no additional cost to the Owner. The Contractor is responsible for notification of local utilities (Call Before You Dig or equivalent).
  - b. If active utility lines are encountered, and are not shown on the Drawings or otherwise made known to the Contractor, promptly take necessary steps to assure that service is not interrupted.
  - c. If service is interrupted as a result of Work under this Section, immediately restore service by repairing the damaged utility at no additional cost to the Owner.
  - d. If existing utilities are found to interfere with the permanent facilities being constructed under this Section, immediately notify the Owner and secure his instructions.
  - e. Do not proceed with permanent relocation of utilities until written instructions are received from the Owner.
2. Protection of persons and property:
- a. Barricade open holes and depressions occurring as part of the Work, and post warning lights on property adjacent to or with public access.
  - b. Operate warning lights during hours from dusk to dawn each day and as otherwise required.
  - c. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, washout, and other hazards created by operations under this Section.
  - d. Provide grounding of equipment.
3. Dewatering of Upland Excavations:
- a. Remove all water, including rain water, encountered during trench and substructure work to an approved location by pumps, drains, and other approved methods.
  - b. Keep excavations and site construction area free from water.

- c. Should de-watering systems be employed, discharge effluent to an upland location contained by hay bales, silt fencing or other means of containment acceptable to the Owner.
  - 4. Use means necessary to prevent dust becoming a nuisance to the public, to neighbors, and to other work being performed on or near the site.
  - 5. Maintain access to adjacent areas at all times.
  - 6. Upland soil stockpiles shall be contained by hay bales or silt fencing to prevent erosion. Maintain containment measures during the Work.
- D. Excavating
- 1. Perform excavating of every type of material encountered within the limits of the Work to the lines, grades, and elevations indicated and specified herein.
  - 2. Satisfactory Excavated Materials  
  
Transport to, and place in, fill or embankment areas within the limits of the Work.
  - 3. Unsatisfactory Excavated Materials
    - a. Excavate to a distance below grade as directed by the SER, and replace with satisfactory materials.
    - b. Include excavation of unsatisfactory materials, and replacement by satisfactory materials, as part of the work of this Section.
  - 4. Surplus Materials
    - a. Surplus material shall become the property of the Contractor.
    - b. Remove surplus material from the site in accordance with Section 02070 –Demolition & Removals.
  - 5. Excavating of Surfaces and Subsurfaces
    - a. Where rocks, boulders, granite, or similar material is encountered, and where such material cannot be removed or excavated by conventional earth moving or ripping equipment, take required steps to proceed with the general grading operations of the Work,

and remove or excavate such material by means which will neither cause additional cost to the Owner nor endanger buildings or structures whether on or off the site.

- b. Where existing subsurface structures are encountered, notwithstanding items described in Paragraph 3.01-C, where these subsurface structures are classified as abandoned by the Owner, and where these structures impede progress of the Work, shall be removed by means which will neither cause additional cost to the Owner nor endanger buildings or structures on or off site.
  - c. Do not use explosives without written permission from the Owner.
- 6. Excavate and backfill in a manner and sequence that will provide proper drainage at all times.
- 7. Borrow  
  
Obtain material required for fill or embankment in excess of that produced within the grading limits of the Work from borrows areas selected and paid for by the Contractor and accepted by the SER.
- 8. Ditches and Gutters
  - a. Cut accurately to the cross sections, grades, and elevations shown.
  - b. Maintain excavations free from detrimental quantities of leaves, sticks, trash, and other debris until completion of the Work.
- 9. Unauthorized Excavations
  - a. Unauthorized excavation consists of removal of materials beyond indicated subgrade elevations or dimension without specific instruction from the Owner.
  - b. Under footings, foundations, or retaining walls:
    - i. Fill unauthorized excavations by extending the indicated bottom elevation of the footing or base to the excavation bottom, without altering the required top elevation.
    - ii. When acceptable to the SER, lean concrete fill may be used to bring the bottom elevation to proper position.

- iii. Elsewhere, backfill and compact unauthorized excavations as specified for authorized excavations, unless otherwise directed by the SER.

10. Stability of Excavations

- a. Slope excavations as necessary to make slopes safe in accordance with the appropriate regulations.
- b. Shore and brace where sloping is not possible because of space restrictions or stability of the materials being excavated.
- c. Maintain sides and slopes of excavations in a safe condition until completion of backfilling.

11. Shoring and Bracing

- a. Provide materials for shoring and bracing as may be necessary for safety of personnel, protection of work and compliance with requirements of government agencies having jurisdiction.
- b. Maintain shoring and bracing in excavations regardless of the time period excavations will be open.
- c. Construct shoring and bracing as excavation progresses.

12. Excavating the Pavement

Cut surface under pavements to comply with cross sections, elevations, and grades.

13. Cold Weather Protection

Protect excavation bottoms against freezing when ambient atmospheric temperature remains lower than 35 degrees F for more than four consecutive hours or is anticipated to be lower than 35 degrees F during non-working hours such as overnight, weekends, or holidays.

14. Backfilling

- a. General:
  - i. For each area shown on the Drawings, place acceptable soil material in layers to required elevations.

- ii. Perform all backfilling and compaction operations in a careful and controlled manner. Avoid damaging existing structures.
- 15. Backfill excavations as promptly as progress of the Work permits, but not until completion of the following:
  - a. Acceptance of construction below finish grade including, where applicable, damp-proofing and waterproofing.
  - b. Inspecting, testing, approving, and recording locations of underground utilities.
  - c. Removing concrete formwork.
  - d. Removing shoring and bracing, and backfilling of voids with satisfactory materials.
  - e. Removing trash and debris.
  - f. Placement of horizontal bracing on horizontally supported walls.
- 16. Ground Surface Preparation
  - a. Remove vegetation, debris, unsatisfactory soil materials, obstructions, and deleterious matter from ground surface prior to placement of fills.
  - b. Plow, strip, or break up sloped surfaces steeper than one vertical to four horizontal so that fill material will bond with existing surface.
  - c. When existing ground surface has a density less than specified under "compacting" for the particular area, break up the ground surface, pulverize, moisture condition to the optimum moisture content, and compact to required depth and percentage of maximum density.
- 17. Placing and Compacting
  - a. De-water area scheduled to receive backfill.
  - b. Place backfill and fill materials in layers not more than 8" in loose depth.
  - c. Before compacting, moisten or aerate each layer as necessary to

provide the optimum moisture content.

- d. Compact each layer to required percentage of maximum density for area.
- e. Do not place backfill or fill material on surfaces that are muddy, frozen, or containing frost or ice.
- f. Place backfill and fill materials evenly along structures, to required elevations.
- g. Take care to prevent wedging action of backfill against structures by carrying the material uniformly around the structure to approximately the same elevation in each lift.

18. Grading

- a. General:
  - i. Uniformly grade the areas within limits of grading under this Section, including adjacent transition areas.
  - ii. Smooth the finished surfaces within specified tolerance.
  - iii. Compact with uniform levels or slopes between points where elevations are shown on the Drawings, or between such points and existing grades.
  - iv. Where a change of slope is indicated on the Drawings, construct a rolled transition section having a minimum radius of approximately 8'-0" unless adjacent construction will not permit such a transition, or if such a transition defeats positive control of drainage.

19. Compacting

- a. Control backfill compaction during construction to provide the minimum percentage of density specified for each area as determined according to ASTM D1557.
- b. Backfill material's density shall not be below 99% of its density at optimum moisture content as determined by the above test in all layers.
- c. Moisture control:

- i. Where subgrade or layer of soil material must be moisture-conditioned before compacting, uniformly apply water to surface of subgrade or layer of soil material to prevent free water appearing on surface during or subsequent to compacting operations.
- ii. Remove and replace, or scarify and air dry, soil material that is too wet to permit compacting to the specified density.
- iii. Soil material that has been removed because it is too wet to permit compacting may be stockpiled or spread and allowed to dry. Assist drying by dicing, harrowing, or pulverizing until moisture content is reduced to a satisfactory value as determined by moisture density relation tests reviewed by the SER.

20. Processed Gravel Surface

- a. Work shall be in strict accordance with Section 4.13 “Traffic Bound Gravel Surface” of the State of Connecticut Department of Transportation Standard Specifications for Roads, Bridges, and Incidental Construction Form 816. Depth of material shall be as indicated on the Drawings.

3.02 MAINTENANCE

A. Protection of newly graded areas:

1. Protect newly graded areas from traffic and erosion, and keep free from trash and weeds.
2. Repair and re-establish grades in settled, eroded, and rutted areas to the specified tolerances.

- B. Where completed compacted areas are disturbed by subsequent construction operations or adverse weather, scarify the surface, reshape, and compact to the required density prior to further construction.

PART 4 - COMPENSATION

4.01 Measurement and Payment

- A. Include in the Contract Sum all costs for Work under this Section in the quantity shown on the Contract Drawings.
- B. No separate payment will be made for Work performed under this Section.
- C. Payment for Additional Work performed as directed on a unit price basis will be based upon the computed volume of material in place, compacted, and as accepted by the Owner.

**END OF SECTION**



**SECTION 02361**  
**TIMBER PILES**

## **SECTION 02361 – TIMBER PILES**

### **PART 1: GENERAL**

1.01 This section applies to timber piles, Southern Yellow Pine, which will be furnished and driven for use as fender piles along the wooden pier and multiple pile dolphins in accordance with the Bid Form scope of work as included in the contract. This section also applies to the bolting and wrapping required to hold the piles securely at the top to create the stability and structural integrity of the respective dolphins.

### **1.02 REFERENCE SPECIFICATIONS AND STANDARDS**

- A. American Society for Testing and Materials (ASTM)  
A 36 Specification for Structural Steel and Malleable Steel Washers  
A 153 Specification for Zinc Coating on Iron and Steel Hardware  
A 307 Carbon Steel Externally Threaded Standard Fasteners  
A 603 Cable- American Galvanized Wire Rope  
D 25 Standard Specifications for Round Timber Piles  
D245 Standard Practice for Establishing Structural Grades and Related properties for Visually Graded Lumber.
- B. American Wood-Preservers' Association (AWPA) – Use all appropriate BMP's (Best Management Practices) relating to the treatment and installation of wood piles including but not limited to:  
A3-97 Chromotropic Acid Test  
C2 Lumber, timbers, bridge ties and mine ties, pressure treatment.  
C3 Standard for Piles - Preservative Treatment by Pressure Processes  
C18 Standard for pressure treated material in Marine Construction  
M4 Standard for care of Preservative-Treated Wood Products

### **1.03 RELATED SECTIONS**

- STEEL PILES Section 02458
- METAL FABRICATIONS
- TIMBER WORK

### **1.04 SUBMITTALS**

- A. Certificates of compliance for class and gradation of piles, timbers, galvanized hardware (wire rope, staples, bolts, etc.).
- B. Pile hammer and compressor data, cap/cushion data, leads and pile driving securing equipment and methodology for the pile driving operations.
- C. Driving templates and guides to be used, cut off and chamfer technique, equipment and details. The stoutest piles are to be the wearing piles first and then brace piles opposite

the wearing piles.

- D. Connection data including bolts, nuts, washers, spikegrids, wire rope, staples and tensioning equipment and procedures, touch up galvanizing materials.
- E. Treatment including chemicals and sealant for tops of cut off piles, preservatives and touch-up coatings.
- F. Pile driving records for each pile.
- G. Safety Data sheets for materials or equipment to be used in the prosecution of the work.

1.05.1 PILE INSTALLATION RECORD DOCUMENTS – The Contractor shall maintain pile driving records of every pile driven.

- A. Driving Record: Submit driving record of each driven pile to the Project Representative no later than two (2) days after driving. Include project name and contract number, type of rig and size of hammer used, type of pile, type of pile driving cap used, pile dimensions, elevations of point, elevations of top before and after cut-off, mud line elevation, continuous record of number of blows for each foot of penetration, and any unusual occurrences during pile driving.

1.06 DELIVERY AND STORAGE:

- A. Timber piles shall be stored on skids off the pavement and under cover in a manner that prevents warping and allows shedding of water. Timber piles shall be handled with ropes or slings without dropping, breaking outer fibers, bruising, or penetrating the surface with tools.
- B. Hardware shall be protected from corrosion and physical damage.

PART 2 – MATERIALS

2.01 ALL WOOD PILES

- A. All wood piles shall be class B.
- B. Taper: Piles shall have gradual taper throughout their length and be cut above the butt swell of the tree. Minimum tip diameter shall not be less than 10 inches.
- C. Straightness: A straight line joining the centers of the butt and tip of the pile shall lie within the pile. Reverse bends and short crooks deeper than 1 inch in 10 feet are not permitted.

- D. Trimming: Allowable knots and limbs shall be cut flush with the surface of the pile, except that knots may be hand-trimmed and flush with surface of the swell surrounding the knot.
- E. Bark: Bark shall be trimmed off, all piles shall be debarked except that occasional bark ingrowth is permitted over sound wood. Less than 10% of the total surface area shall be in-growth and only on 10% of the total number of piles.
- F. Sawing: All piles shall be cleanly cut off at butt and tip at right angles to the axis of the piles. Dolphin brace piles shall be cut to drain away from the king pile bearing plate.

## 2.02 SOUTHERN YELLOW PINE PILES:

- A. GENERAL – New piles furnished under this section shall be new and undamaged, one piece, cleaned and peeled Southern Yellow Pine (SYP) piles conforming to ASTM D25, pressure preservative treated with chromated copper arsenate, CCA, Type C to final net retention of 2.5 #/cf in accordance with AWPA C3 and C18.
- B. New wood fender piles to be furnished along the wooden pier as fender piles or the attenuation barrier shall be Class B Southern Pine (SYP) conforming to ASTM D25. New SYP piles used on the 7 pile dolphin alternate or unit price bid items shall be Class A piles conforming to ASTM D25.
- C. Piles shall have a minimum tip diameter of 10 inches, the minimum butt diameter and circumference shall be as indicated in Tables 1(a) and 1(b) of ASTM D25.
- D. Only piles bearing a stamp, tag or brand certifying that the treatment was accomplished in accordance with the standards of the American Wood Preservers Association (AWPA) will be used for in-water construction. Wood that has been re-treated because it failed inspection following the first preservative pressure treatment application shall not be used for in-water construction.

## 2.03 PROHIBITED DEFECTS Piles shall be generally free of defects which significantly affect the strength or drivability of the pile. The following defects are prohibited.

- 1. Sound knots and knot clusters of aggregate width greater than one third the diameter of the section where they occur.
- 2. Rotten and hollow knots except occasional knot holes and scars less than ½” in average diameter and 1 ½” deep at the butt or ½ inch deep at the tip or equivalent in sound wood.
- 3. Rot in the Heart.
- 4. Splits and shakes within 5 feet of the tip of the pile.
- 5. Clean hole more than 1 ½” diameter in the butt.
- 6. Plugged holes
- 7. Large open star shakes and splits in the butt

8. Open ring shake greater than 12-inch diameter in the butt or severe cup shakes.
9. Tight splits in the butt longer than 18".
10. Severe bruising or damage caused in falling or handling.
11. Insect attack except occasional pin-hole borer. (1 per 10 S.I.)
12. Spiral grain of pitch steeper than ½ turn (180°) in twenty feet.

#### 2.04 HARDWARE:

- A. Wire rope shall be 1.25" diameter, 7 x 1 fiber core cable in accordance with ASTM A603, American Galvanized wire rope.
- B. Staples: Staples shall be minimum 3/8" diameter diamond pointed (not sloped or beveled cut) galvanized A 36 or higher steel or stainless steel.
- C. Threaded bolts and nuts including timber bolts shall conform to ASTM A307, Grade A, minimum 1¼ inch diameter unless otherwise shown in the drawings.
- D. Galvanizing - All hardware shall be American hot-dip galvanized after fabrication and threading of stock, in accordance with ASTM A153 (2 oz. Per square foot). Nuts will be sized to fit the bolt threads after galvanizing.

### PART 3 - CONSTRUCTION METHODS

#### 3.01 GENERAL INSTALLATION REQUIREMENTS:

- A. Proper location of piles shall be established by leaving a reference pile from the existing dolphin or by survey methods prior to placement of the piles. Use the approved template(s) to establish the proper alignment and batter.
- B. Inspect piles when delivered and when set in the leads immediately before driving. Remove and replace physically damaged piles. Cant hooks or other damaging tools shall not be used to handle piles. Any damage to the treated wood will be repaired in accordance with AWP A M4.
- C. Pile-driving work, except spotting and manual directing during placement, may be done from the water or land.
- D. Square the heads and tips of piles to the driving axis. Piles may be shaped for driving efficiency but not pointed except for individual fender piles.
- E. Laterally support piles during driving, but do not unduly restrain piles from rotation. Where pile orientation is essential, take precautionary measures to maintain the

- orientation during driving. Use approved template(s) and guides to establish and maintain the proper pile alignment and batter.
- F. Once driving begins, it shall be completed without interruption.
  - G. Jetting will not be permitted on piles due to environmental quality issues and the need for solid embedment and resistance to pulling.
  - H. Splicing of timber pile sections will not be permitted.
  - I. Saw blades and drill bits shall be kept sharp, producing shavings not chips, thus minimizing damage to the wood. Cutting, shaping, drilling and other construction activities should be conducted clear of the water's edge. Sawdust, chips and any debris should be collected and disposed of in accordance with applicable laws, codes and other requirements.
  - J. Cut pile tops off at the indicated elevation with a slope away from the dolphin center in order to facilitate drainage. Chamfer the cut off piles where indicated for the King piles and edges exposed to berthing lines. Secure piles with new hardware in accordance with Section 3.06 below.
  - K. Wood chips and waste, or any pressure-treated wood debris shall be collected and disposed of in accordance with applicable laws, codes or other requirements.
  - L. Treat all exposed cut ends and drilled holes in accordance with AWWA M-4.
  - M. Galvanized coating on bolts on wire rope which has been cut, burned by welding, abraded, or otherwise damaged to the point that the base metal is exposed shall be repaired and recoated. The damaged area shall be cleaned thoroughly by wire brushing to remove all traces of welding flux and loose or cracked galvanized coating before painting. The cleaned area shall be painted with two coats of galvanizing repair paint.
  - N. Submit driving records of each driven pile to the Owner no later than two (2) days after driving. Include project name and contract number, type of rig and size of hammer used, type of pile, type of pile driving cap used, pile dimensions, elevations of point, elevations of top before and after cut-off, mud line elevation, continuous record of number of blows for each foot of penetration, and any unusual occurrences during pile driving.
  - O. Wood timber piles for the attenuation barrier shall be Class B Southern Yellow Pine minimum 10-inch tip and wider butt which may be trimmed to achieve a snug fit between the flanges of the pier support H piles. No more than 2" may be removed per pile. Piles will be secured to the pier support H piles by press fit and salvaged anchor chains or similar weights looped over to provide weight to counteract buoyancy of the piles.

### 3.02 DRIVING EQUIPMENT:

- A. Pile hammers shall be sufficient capacity to drive the piles to the required embedment depth and a bearing capacity indicated with at least 4 blows to the inch and not more than 10 blows to the inch, requiring a driving energy of approximately 8,750 to 15,000 foot-pounds.
- B. Driving protection for the butt of the pile is recommended. Piles that are damaged during driving will not be acceptable, and will require removal and replacement with a new pile. The driving system shall transmit hammer energy uniformly across the face of the butt, aligned with the longitudinal axis of the pile and consistently during the entire driving period.
- D. Pile driving leads or other approved methods shall be used to keep the hammer and pile in accurate alignment during driving. Swinging leads (unsecured at the base) will not be approved.
- D. A pile shoe or shaped tip shall be used as indicated and may be used in other areas with the Engineer's prior approval to assure maximum penetration with minimal pile damage.

### 3.03 TOLERANCES:

- A. LOCATION:
  - 1. New dolphins shall be built in the precise location depicted in line as shown on the drawings to maintain the current ramp approach and avoid exposing any one dolphin to excessive berthing impact or bearing loads.
  - 2. The face of the fender piles shall be driven within 6 inches of the position required so the fenders shall be in line with the tires or donut fenders used on the steel piles.
- B. ALIGNMENT:
  - 1. The plumb piles shall be driven with a slope variation of not more than 1 inch per 10 feet of pile length.
  - 2. Battered piles shall be driven with a slope variation of not more than 6 inches per 10 feet of pile length.
  - 3. Manipulating piles to force them into position after driving will not be permitted.
  - 4. Dolphin piles will be driven in the proper line with other dolphins. Two wearing piles shall be in line parallel to the berthing slip center line for load distribution to provide a smooth face on both piles to contact the rub rail simultaneously and evenly distribute berthing forces.

### 3.04 DAMAGED OR MISDRIVEN PILES:

- A. Damaged piles shall be replaced at the Contractor's expense.
  - B. Mis-driven piles shall be replaced or pulled and re-driven as directed, at the Contractor's expense, after verification that there has been no physical damage to the pile in the initial driving. A misdriven pile may only be re-driven once.
- 3.05 OBSTRUCTIONS: Should unyielding subsurface obstructions be encountered, prior to reaching the indicated bearing capacity or embedment, and continued driving such obstructions would damage the pile or cause it to drift substantially from its required location, the Contractor shall notify the engineer. If it is determined that the contractor must withdraw the pile and drive it at another location, as directed, the cost of withdrawing and re-driving the pile will be paid for at the unit price stipulated in the bid.
- 3.06 SECURING PILES:
- A. Trim the inner face of piles as necessary to develop each connection with other piles or timbers bearing flat without inducing bending or torsion.
  - B. All piles shall be cut accurately and trimmed for a true and close fit and matching the size and spacing of adjacent piles and creating a tight fit. Contact surfaces of abutting timbers shall have firm and even bearing. Braced piles will be notched as necessary to provide a square fit and to provide load transfer without complete dependence on the steel king pile gussets and cable wrapping.
  - C. All cut timber surfaces shall be given two brush coats of a compatible preservative solution in accordance with AWP A M-4 before installation.
  - D. Wood chips and any debris from cutting, shaping, drilling and other construction activities should be collected and disposed of in accordance with applicable laws, codes and other requirements.
  - E. Wire rope shall be wrapped around the top of the dolphins beginning 2 feet below the bearing plate of the steel king pile. Two staples shall secure the first wrap to the first pile and the end of the wire rope shall be embedded several inches into the first pile. There shall be ten wraps; double clamps shall bind the first and last wraps. 1,000 pounds of tension shall be applied to the wire rope during each successive wrap prior to driving home the staples.
  - F. Galvanized coating on steel components, bolt and wire rope which has been cut, burned, welded, abraded, or otherwise damaged to the point that the base metal is exposed shall be repaired and recoated. The damaged area shall be cleaned thoroughly by wire brushing to remove all traces of loose or cracked galvanized coating before painting. The cleaned area shall be painted with two heavy coats of galvanizing repair paint.
  - G. Chafing strips and tire or donut fenders shall be attached to Southern Yellow Pine



fendering piles in accordance with Section 02368.

- H. Wood timber piles used for the attenuation barrier shall be secured to the pier support H piles by press fit and chain wraps to provide weight to counteract buoyancy of the piles and avoid hard connection.

### 3.07 FINAL BUTT TREATMENT:

- A. After all trimming and preservative treatment, coat the top of pile with a sealant material at least to a thickness recommended by the manufacturer.
- B. All Southern Yellow Pine fender piles shall be topped with a UV treated rubber piling cap. Caps shall fit snug and not require any additional fasteners to remain in place.

Where appropriate, the term "WH" shall be modified to account for any inclination of the hammer required to drive the battered piles.

## PART 4 - METHOD OF MEASUREMENT

- 4.01 Measurement for payment will be based on a completed wood dolphin as a unit with individual piles properly driven, and not damaged, to a suitable embedment, cut off properly, trimmed, banded and treated, complete and in place as included in the contract Schedule of Values.
- 4.02 Piles will be measured for conformance with the unit price bid schedule based on length, class B pressure treated Southern Yellow Pine installed and accepted in the quantity shown on the contract drawings and / or approved by the Engineer.
- 4.03 Blocking, chain, chafing strips, and donut or tire fenders will be measured for conformance to the drawings and proper quantities.

## PART 5 – BASIS OF PAYMENT

- 5.01 Piles will be paid for in accordance with the following:
  - A. Driven Class B, CCA treated Southern Yellow Pine piles in each 7 Pile Dolphins, each with a steel king pile will be paid for installed, connected, wrapped, banded properly as a Dolphin unit, complete and in place, cut off, and treated in accordance with the approved Schedule of Values.
  - B. Driven Class B, CCA Treated Southern Yellow Pine piles will be paid for installed, properly cut off and treated, complete and in place, in accordance with the approved Schedule of Values.
  - C. Piles encountering obstructions, pulled and re-driven with the prior approval of the Engineer will be paid for in accordance with the Bid and approved Schedule

of Values.

- D. Piles driven to replace a pile damaged by the Contractor will not be paid for. Piles pulled and re-driven at the Contractor's discretion but without the Engineer's prior approval will not be paid for.

**END OF SECTION**

**SECTION 02370**  
**EROSION AND SEDIMENT CONTROLS**

## **2SECTION 02370 - EROSION AND SEDIMENTATION CONTROLS**

### **PART 1 GENERAL**

#### **1.01 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including Division 1 General Requirements and Specific Requirements, apply to this Section.
- B. “Connecticut Guidelines for Soil Erosion and Sediment Control”, Connecticut Council on Soil and Water Conservation, May 2002, inclusive of all supplements and/or its latest revision or edition.

#### **1.02 SECTION INCLUDES**

- A. Hay bales, filter fabric fence, sediment barriers and sedimentation structures
- B. Temporary sediment basins as required by field conditions

#### **1.03 QUALITY ASSURANCE**

- A. All erosion and sediment control measures will be constructed in accordance with the standards and specifications of the “Connecticut Guidelines for Soil Erosion and Sediment Control”.

#### **1.04 PROJECT CONDITIONS**

- A. Erosion and sediment control measures will be installed prior to construction whenever possible and will be maintained in effective condition throughout the construction period.
- B. Hay bale filters will be installed at the base of all proposed slopes and on the downhill side of any area receiving new planting and as instructed by the Engineer.
- C. Additional control measures will be installed during the construction period as required by field conditions or as requested by the Engineer.
- D. Sediment removed from control structures will be disposed of on site in a manner approved by the Engineer.

### **PART 2 PRODUCTS**

#### **2.01 MATERIALS**

- A. Hay bales:

- 1. Hay bales shall be made of hay with 40 lbs. minimum weight, and 120 lbs. maximum

weight. The hay bales shall be sufficiently bound with either wire or nylon twine to resist breaking apart during their use, shipment or placement.

2. Stakes shall be wood, minimum two inches (2") by two inches (2") by three feet (3') long.

B. Filter fabric:

1. Synthetic filter fabric shall be a pervious sheet of propylene, nylon, polyester or ethylene filaments and shall be certified by the manufacturer or supplier as conforming to the following requirements:

Minimum Filtering Efficiency:	75%
Minimum Tensile Strength at 20% Elongation	
for Extra Strength:	50 lbs./lin. in.
for Regular Strength:	30 lbs./lin. in.
Minimum Flow Rate:	0.3 gal./min./sq.ft.

- C. Crushed stone: crushed or broken stone conforming to the requirements of Section M.02.01-1 "Broken or Crushed Stone" of ConnDOT Form 816. Gradation shall conform to No. 8 (1/4" stone) per Section M.01.01.

### PART 3 EXECUTION

#### 3.01 PREPARATION

- A. Conduct construction operations in compliance with all terms of regulation agency requirements, including requirements noted on the Contract Drawings.
- B. Retain all sediments within the contract limits, and within designated disposal areas.
- C. Install erosion control measures prior to beginning site disturbance. Maintain erosion control measures throughout construction period, install additional measures if necessary to retain all sediment on site. Install any additional erosion control measures which may be required by local regulatory officials.

#### 3.02 SEDIMENT BARRIERS

- A. Sediment barriers shall be limited to hay bales and silt fencing for sheet flow applications installed in accordance with Item 1.01.B.
- B. Hay Bales:
  1. Bales shall be placed in a single row, with ends of adjacent bales tightly abutting one another. Bales shall be oriented lengthwise on the contour for sheet flow applications, perpendicular to the contour for channel flow applications, and in a square or rectangular shape around depressed catch basin inlets.

2. Bales shall be installed so that bindings are oriented around the sides rather than along the tops and bottoms of the bales to prevent deterioration of the bindings.
3. The barrier shall be entrenched and backfilled. A trench shall be excavated the width of the bale and the length of the proposed barrier to a minimum depth of four inches (4"). After the bales are staked and chinked, the excavated soil shall be backfilled against the barrier. Backfill soil shall conform to the ground level on the downhill side and shall be built up to four inches (4") against the uphill side of the barrier.
4. For channel flow applications, the barrier shall be extended to such a length that the bottoms of the end bales are higher in elevation than the top of the lowest middle bale to assure that sediment laden runoff will flow either through or over the barrier but not around it.
5. The areas immediately around catch basins may be excavated slightly to increase ponding of runoff water around catch basins.
6. Each bale shall be securely anchored by at least two stakes driven through the bale. The first stake in each bale shall be driven toward the previously laid bale to force the bales together. Stakes shall be driven deep enough into the ground to securely anchor the bales.
7. The gaps between bales shall be chinked with straw to prevent water from escaping between bales.
8. In sloping areas where surface flow follows the bale line, perpendicular bale checks shall be installed at appropriate intervals (100 feet maximum).

C. Filter Fabric

1. Filter fabric shall be wrapped around all existing and proposed trench drain and catch basin and inlet grates to prevent sediment from entering the storm drainage system. The fabric shall be wrapped tightly around the outside of the grate structure and the grate placed securely back inside the receiving frame.
2. Where soil stockpiles are to be placed directly over trench drains or inlets, the fabric shall be wrapped a minimum of two (2) times around the grate structure.

3.03 INSPECTION AND MAINTENANCE

A. General

1. Inspection shall be frequent, and shall be made after each storm event. Repair or replacement shall be made promptly as needed.

B. Hay Bales

1. Cleanout of accumulated sediment behind the bales is necessary if  $\frac{1}{2}$  of the original height of the bales becomes filled with sediment.
2. Hay bales shall be replaced after their expected useful life of 60 days.
3. Bale barriers shall be removed when they have served their usefulness, but not before the upslope areas have been permanently stabilized and the completion of construction activities.

C. Filter Fabric Fence

1. Fabric placed around grates shall be replaced whenever the fabric becomes torn, stretched or otherwise damaged so that it can no longer perform its function.

D. Sedimentation Basins

1. Temporary sedimentation basins shall be cleaned-out once one-half of the basin volume becomes filled with sediment.

PART 4 - COMPENSATION

4.01 Measurement and Payment

- A. Include in the Contract Sum all costs for Work under this Section in the quantity shown on the Contract Drawings.
- B. No separate payment will be made for Work performed under this Section.

**END OF SECTION**

**SECTION 02458**  
**STEEL PILES**



## **SECTION 02458 - STEEL PILES**

### **PART 1 - GENERAL**

#### **1.01 Description of Work**

- A. Work included: The work covered by this section of these Specifications consists of furnishing all plant, labor, supervision, equipment, appliances and materials and in performing all operations in connection with the installation of the steel HP and pipe piles, all in strict accordance with this Section of the Specifications and the applicable Drawings and subject to the terms and conditions of the Contract.
- B. Related work:
  - 1. Documents affecting work of this Section include, but are not necessarily limited to Section 00710.
  - 3. Test Boring Logs included in the Contract Drawings.

#### **1.02 Quality Assurance**

- A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the Work of this Section.
- B. The Owner, through the Engineer, reserves the right of approval of any Subcontractor pre-qualified and selected for this portion of the Work by the Contractor. Approval will be based, in part, on documented successful experience in performing work of a similar nature.
- C. Driving of additional piles at the Contractor's own expense may be required by the Engineer in the event installation tolerances are exceeded.
- D. The Owner or Engineer may perform shop inspections during the fabrication of the steel piles. The Contractor shall provide necessary detail on his project schedule and keep the Engineer informed as to progress of this work (minimum of one week notice).

#### **1.03 Submittals**

- A. Submit the pre-qualified list of subcontractors and the proposed schedule of unit prices to the Engineer for review.
- B. Submit technical data for all pile driving equipment proposed for use.
- C. No later than the time of delivery of materials to the site, submit steel certificates for review.
- D. Submit details for splices in piles, if used.

- E. Provide a minimum of five (5) days notice to the Engineer prior to driving any piles. Notify the Engineer of any changes in the schedule.

#### 1.04 Product Delivery and Storage

- A. The Contractor shall notify the Engineer twenty-four (24) hours in advance of delivery of steel piles. Contractor guarantees that steel piles shall be handled in such a manner as to not induce stresses which will damage the materials, and shall be sorted in a safe manner within designated areas provided at the site.

### PART 2 - PRODUCTS

#### 2.01 Steel Sections

- A. Steel Pipe Pile:

The steel pipe pile size and material shall be as specified on the Contract Drawings or equivalent as accepted by the Engineer. Steel material shall be ASTM A252, Grade 3 with a minimum  $F_y = 45$  ksi. Pile length shall be as shown on the Contract Drawings.

Pipe piles shall have a minimum wall thickness as noted on the Drawings, and not less than 0.500 inches.

- B. Steel HP-Pile:

The steel HP-pile size and material shall be as specified on the Contract Drawings or equivalent as accepted by the Engineer. Steel material shall be ASTM A36. Pile length shall be as shown on the Contract Drawings.

- C. Welding shall conform to AWS D1.1 Structural Code, latest edition.

#### 2.02 Splices

- A. No more than one splice per pile.
- B. No splice in lower 40 feet.
- C. Both upper and lower sections of pipe ends smooth, square and flat prior to splicing.
- D. Provide full butt weld which will develop adequate strength to transmit the vertical and lateral loads and moments at the splice during driving and under maximum design loading.

#### 2.03 Protective Coating

- A. Pipe piles shall be shop coated, on outer surfaces only, to a minimum of five (5)

feet below the design dredge depth elevation. HP-piles shall be shop coated to a minimum of five (5) feet below the design dredge depth elevation. Protective coating shall conform to Section 09905.

### PART 3 - EXECUTION

#### 3.01 Equipment:

- A. Drive piles with an air or diesel operated impact hammer with sufficient energy and energy transfer characteristics to drive the piles to the required toe elevations and capacity without damaging the pile head. Use care not to injure piles by over driving as would be indicated by rebound of hammer or staggering of pile. Cut off heads of piles accurately in accordance with the Contract Documents after completion of driving.
- B. Rig the pile driver with fixed leads to guide the hammer from highest to lowest points of travel in a manner permitting free vertical movements of the hammer, and with leads laterally braced to assure firm support of the piles during driving.
- C. The pile is to be located by temporary frames containing members of adequate size to guide and stabilize placement of the pile prior to driving. The frames shall be rigidly located such as to keep the pile plumb and in correct position while being driven.

#### 3.03 Pile Driving

- A. Drive the piles straight and true at indicated locations, with deviation from the longitudinal axis of not more than 1/4 inch per foot.
- B. Locate the piles within 3 inches of the positions indicated on the Drawings.
- C. Continuously drive each pile to reach the capacity and/or full embedded length called for on the Drawings.
  - 1. Lengths shown on the Drawings are considered average values, and the actual lengths may vary when so accepted by the Engineer.
  - 2. Drive piles to achieve driving resistance penetration and refusal values as specified and as accepted by the Engineer.
- D. Use suitable cushions or driving heads to avoid damage to the piles, developing proper total driving energy, and directing the energy along the longitudinal center of gravity of the pile.
  - 1. Drive piles to their full penetration without bending, rupturing, or severely damaging the piles.
  - 2. If failure in any of the above respects is encountered, pull the pile and drive a new pile at no additional cost to the Owner.
  - 3. If a replacement pile fails to develop full driving resistance, pull the

replacement pile and drive a new pile with larger diameter at no additional cost to the Owner.

E. Pre-drilling

1. Jetting to assist penetration will not be accepted unless accepted by the Engineer.
2. Approved pre-drilling to assist penetration may be used where extreme driving resistance is encountered, or where vibrations from driving may be detrimental to adjacent structures.
3. Make pre-drilled bores 80% of tip diameter and to 80% of the depth of penetration, reserving the lower phases of penetration solely for driving.

F. Where piles are pushed up by pressure from driving of adjacent piles, re-drive as required and at no additional cost to the Owner.

G. The Engineer will record pile driving information, including date of installation, pile number, pile type and installed length, type of hammer and rated energy, date of installation, blow counts, and final tip elevation.

3.04 Safe Load Calculation

Calculate "Safe Load" by Engineering News Formula as follows:

Formula:  $P = \frac{2WH}{S+C}$  (single acting or drop hammer)

$P = \frac{2E}{S+C}$  (double acting hammer)

Where: P = Safe Load (pounds)  
W = Weight of striking parts (pounds)  
H = Height of stroke (feet)  
S = Average penetration of pile (inches per blow of hammer) for last 5 blows  
C = 0.10 (single and double acting hammers)  
C = 1.0 (drop hammer)  
E = Rated energy by manufacturer (foot-pounds)

Where appropriate, the term "WH" shall be modified to account for any inclination of the hammer required to drive the battered piles.

3.05 Handling, Cutting and Framing

A. Handle piles carefully, without sudden dropping or excessive bending.

3.06 Length and Load Requirements

- A. Required tip elevations and/or minimum "Safe Load" capacities are as indicated on the Drawings.

PART 4 - COMPENSATION

4.01 Measurement and Payment

- A. Include within the Contract Sum an amount sufficient to cover all costs for Work of this Section in the quantity shown on the Contract Documents.
- B. Include within the schedule of unit prices submitted additive and deductive amounts for possible changes in the Work of this Section.

Unit prices shall include all associated pile components, including but not limited to splices, pile points, reinforcing steel, and epoxy coatings.

Payment for pile work performed as directed on a unit price basis will be based upon the quantity of work furnished and installed, and as accepted by the Engineer.

- C. Payment will be made for Work installed properly according to the Contract Documents or other authorized instruction.
  - 1. Payment will not be made for damaged, under-capacity or defective work. Payment will not be made for correction of defective work or additional work caused by Contractor's error.

**END OF SECTION**

**SECTION 02511**  
**BITUMINOUS CONCRETE PAVEMENT**

## **SECTION 02511 - BITUMINOUS CONCRETE PAVEMENT**

### **PART 1 GENERAL**

#### **1.01 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including Division 1 General Requirements and Specific Requirements, apply to this Section.
- B. "Form 816" shall mean the State of Connecticut, Department of Transportation Standard Specifications for Roads, Bridges and Incidental Construction, Form 816-2004 or its latest edition and any supplemental specifications.

#### **1.02 SUMMARY**

- A. This Section includes the materials, labor, installation and incidental costs for the installation of subbase material, base materials, bituminous concrete pavement and markings.

#### **1.03 SUBMITTALS**

- A. Material Certificates: Provide material certificates signed by the material producer and the Contractor, certifying that materials and products comply with specified requirements.

#### **1.04 QUALITY ASSURANCE**

- A. Material and Methods of Construction: Shall comply with the following standards:
  - 1. American Society for Testing and Materials (ASTM).
  - 2. American Association of State Highway and Transportation Officials (AASHTO).
  - 3. Asphalt Institute (AI).
  - 4. State of Connecticut DOT Standard Specifications, Form 816, inclusive of all supplements.
- B. Testing: Compaction tests may be required by the Owner and shall be paid for by the Contractor. No specific testing schedule has been established at this time. If tests indicate that density requirements have not been achieved, the Contractor shall continue compacting. All retesting in these areas shall be paid for by the Contractor.
- C. Density and Compaction Testing: The Contractor is responsible to schedule compaction tests if required by the Owner and to allow adequate time for the proper execution of said tests.

- D. Allowable Tolerances: Final surface of base materials within 3/8" from a required grade. Final pavement thicknesses shall conform to specified requirements as shown in the Drawings. Test for smoothness using a ten (10) foot long straightedge. Surface shall not vary more than 1/4" from straightedge when placed in any direction. In no case will water be allowed to stand or puddle on any finished pavement.
- E. Permits/Approvals: The Contractor shall obtain approval of construction and secure all permits for all work.

#### 1.05 DELIVERY, STORAGE AND HANDLING

- A. Transporting shipments of bituminous concrete material shall be made in tight vehicles previously cleaned of all foreign material, and delivered to the site, so that it will not become contaminated in any way.

#### 1.06 PROJECT CONDITIONS

##### A. Weather Limitations

1. Base material shall not be placed on frozen or saturated subbase material.
2. Bituminous concrete paving material shall not be placed on frozen or saturated base material.
3. Cold weather: Bituminous concrete paving materials shall be mixed and placed in accordance with minimum placement temperature as specified in Article 4.06.03, Item 8 - Placing of Mixture, Form 816.
4. Precipitation or Moisture: Placement of bituminous concrete paving materials shall not be scheduled when weather conditions of fog or rain prevail nor when the pavement surface shows signs of any moisture.
5. Precipitation Probability: Placement of bituminous concrete paving materials shall not be scheduled when the Precipitation Probability, obtained by the Contractor from the U.S. Weather Bureau Within three (3) hours prior to the start of such operations, equals or exceeds fifty (50) percent. The Contractor shall notify the Engineer of the exact time at which the above information was obtained.

- B. Grade Control: Establish and maintain the required lines and grades for each course during paving operations.

- C. Provide temporary barricades and warning lights as required for protection of project work and public safety.



- D. Protect adjacent work from damage, soiling and staining during paving operations.
- E. Inspection Costs: All costs associated with material certifications, plant inspection and laboratory tests shall be borne by the Contractor and shall be deemed included in the price bid for asphalt pavement.

## PART 2 PRODUCTS

### 2.01 BITUMINOUS CONCRETE PAVEMENT

- A. Conform to the requirements of Article M.04.01, Form 816, Class 2.

### 2.02 TACK COAT

- A. Conform to the requirements of Article M.04.01, Item 1(d), Sub-item (4), Form 816. Tack Coat shall be Grade CSS-1H cationic emulsified asphalt, diluted with water at a 1:1 ratio.

### 2.03 PROCESSED STONE AGGREGATE

- A. Conform to the requirements of Article M.05.01, Form 816.

## PART 3 EXECUTION

### 3.01 INSPECTION

- A. Verify that all existing utility openings, valves, and other project installations are at their proper finished grade elevations, within areas to be paved. Provide temporary closures and protection over openings until completion of rolling operations. Remove closures at completion of the work. Set covers to grade, flush with the surface of the adjoining pavement.

### 3.02 SUBGRADE PREPARATION

- A. Prior to placing the bottom course of base, the prepared subgrade shall be maintained true to line and grade, at all times for a minimum distance of 200 feet in advance of the work. No placement of the processed aggregate is to commence until acceptance by the Engineer of the subgrade on which it is to be placed.
- B. The formation and protection of subgrade shall conform to the requirements of Article 2.09.01 and 2.09.03, Form 816.

### 3.03 BASE COURSE MATERIAL PLACEMENT/COMPACTION

- A. Install reclaimed base material at the locations as shown on the Drawings and in accordance with Article 3.04.03, Conn DOT Form 816. Dimensions specified are after compaction.

- B. Compact base material with vibratory roller to minimum 95% modified AASHTO laboratory density (ASTM D-1557, Method C).
- C. Insure thorough and proper compaction around all yard drains, catch basins, structures, utility valves, and other improvements that project above base material.

### 3.04 BITUMINOUS CONCRETE PAVEMENT

#### A. General

- 1. Install the bituminous concrete pavement to the lines, grades, and details shown on the Drawings. Neatly and cleanly meet and match abutting pavements. Remove all soft or yielding material below grade and replace with suitable material.
- 2. Thicknesses after compaction shall conform to the details on the Drawings. The pavement shall consist of the number of courses and thickness as detailed. Remove and replace areas showing deficiencies in required thickness with new material as directed by the Engineer.
- 3. Protect existing abutting pavement during paving operations. Replace any abutting pavement damaged during paving operations. Joint between bituminous pavement and existing portland cement concrete pavement shall be tightly compacted and pavement edge shall be of equal density to other areas of pavement.
- 4. Provide a cross-pitch of 1/4" per foot for proper drainage. Ensure that there are no "low" spots that may trap water and create a slipping hazard.

#### B. Forms

- 1. Provide wood edge forms of an approved type and a minimum length of ten (10) feet for tangents and curves, unless otherwise shown on the plans. Wood forms shall be of a depth equal to the depth of the pavement and shall be securely staked and braced to the required line and grade. Note: Hand tamp edges and bevel if wood forms are not used.
- 2. Install wood forms along all edges of pavement to produce a clean vertical edge. Secure strips to allow for proper compaction of bituminous concrete. Do not remove edge screed strips until pavement is thoroughly compacted. Raveled edges will not be accepted. Wood forms are to be removed after the bituminous pavement has completely set.
- 3. All forms shall be straight, free from bends and warps at all times, and shall be cleaned thoroughly and oiled before pavement is placed against them, this cleaning and oiling being repeated daily as the forms are moved ahead.

4. The forms shall rest firmly upon the thoroughly compacted sub-grade throughout their entire length, shall be joined neatly and tightly and staked securely to line and grade, three (3) bracing pins or stakes, each ten (10) foot length of side form, so that they will resist the pressure of the pavement and the impact of the roller without springing.

C. Placing

1. Bituminous concrete pavement shall be constructed and compacted in conformance with Conn DOT Form 816 requirements.
2. Coat the edge of all abutting pavement with tack coat before installing bituminous concrete pavements. Insure that the abutting pavement has a sound, clean, straight edge. Feathering of edges and transitions between new and existing pavements is not acceptable. Protect surfaces of abutting pavement from tack coat overspray.
3. Each mixture shall be furnished and laid by means of a mechanical spreader of approved design to a depth which after final compaction shall be equal to the specified depth. In areas where the use of a mechanical spreader is impractical, as determined by the Engineer, other means of spreading and compacting may be permitted. The use of hand rakes will not be permitted. The Contractor shall use lutes where necessary.
4. After placing and compacting binder course, tack coat shall be applied prior to placement of the wearing (top) course.
5. Each mixture shall be laid only where the surface to be covered is free from loose or foreign material, dry, and only when weather conditions, in the opinion of the Engineer, are suitable.
6. The Contractor shall provide suitable means for keeping all small tools clean and free from bituminous accumulations.
7. Pavement may be laid by hand. Pavement shall be compacted by making multiple passes with a roller weighing not less than 2,000 pounds. After compaction, the thickness shall be that as specified on the drawings.

D. Compacting

1. Upon completion of the spreading of each mixture, the material shall be consolidated thoroughly and uniformly with self-propelled tandem rollers. The top course shall be free from roller marks.
2. Rollers used for compacting the top course shall be well balanced, self-propelled, tandem rollers, weighing between seven (7) and eight (8) tons. The roller shall have a

compression under the rear wheel of between 200 and 300 pounds per linear inch of roll at a rate not exceeding 800 square yards per hour per roller. After compaction, the surface course shall have a density not less than 97% theoretical maximum density as determined by Appendix B of The Asphalt Institute Manual MS-2.

3. Locations inaccessible to the roller, the compression shall be effected with iron tampers weighing not less than twenty-five (25) pounds and having a bearing area not exceeding forty-eight (48) square inches, or other impact type equipment.
4. Perform breakdown, second and finish rolling until the bituminous concrete mixture has been compacted to the required surface density and smoothness. Continue rolling until all roller marks are eliminated. Provide a smooth compacted surface true to thickness and elevations required.
5. After final rolling, do not permit vehicular traffic on the pavement until it has cooled and hardened, and in no case sooner than 8 hours.

E. Joints for New Construction and Between Existing Pavement:

1. Carefully make joints between old and new pavements, and between successive day's work, to ensure a continuous bond between adjoining work. Construct joints to have the same texture, density, and smoothness as other sections of the asphalt concrete course.
2. Construction shall be as nearly continuous as is possible. The roller shall pass over the end of the laid mixture only when a practical necessity.
3. When the operation of laying is interrupted, the end of the laid material shall be left unrolled until such time as work is resumed, in order that there be no joints throughout the project.
4. If it is necessary to roll the end of the laid mixture during construction, thus consolidating it, the joint so made shall be cut back before recommencing the operation of laying, to present a fresh, clean surface for contact with the newly placed material.
5. The edges of such joints shall be painted with liquid asphalt (RC-70 or MC-70) and the use of hot smoothing irons in finishing such joints, shall not be permitted.

F. Finished Surface

1. The surface of the top course of the pavement after compression shall be smooth and true to crown and grade, free from depressions, waves, bunches, overlapping seams and unevenness in surface. All new surfaces shall meet existing surfaces smoothly and evenly.

2. After the compaction of the top course, the Contractor shall check the entire paved area for depressions, using a ten (10) foot wood or metal straightedge. Any depressions greater than three-sixteenths (3/16) of an inch shall be corrected by removing the top course of the affected areas, and replacing with new material to form a true and even surface.
- G. Defects: Where defects in composition, compression or finish appear in the completed work, such finished areas shall be removed to the full depth of the course and the defective material replaced with the required thickness of pavement at the expense of the contractor.
1. Patching: Remove and replace mixtures that become mixed with foreign materials and all defective areas. Cut out such areas and fill with fresh hot asphalt concrete. Compact by rolling to the required surface density and smoothness. Remove deficient areas for the full depth of the course. Cut sides perpendicular and parallel to the directions of traffic with edges vertical. Apply a tack coat before placing asphalt concrete mixture.

### 3.05 PROTECTION/CLEAN-UP

- A. Protect all work until acceptance of the project. Replace or repair pavement if damaged prior to acceptance.
- B. Clean up all debris from installation procedures, including but not limited to bituminous concrete and base material overflow into/onto areas indicated to be lawn or other surfaces. Remove from site all excess materials, debris and equipment. Contractor shall dispose of debris material legally.
- C. Repair damage resulting from paving operation to other areas of the work.

## PART 4 - COMPENSATION

### 4.01 Measurement and Payment

- A. Include in the Contract Sum all costs for Work under this Section in the quantity shown on the Contract Drawings.
- B. No separate payment will be made for Work performed under this Section.

**END OF SECTION**

**DIVISION 3**  
**CONCRETE**

**SECTION 03300**  
**CAST IN PLACE CONCRETE**

## **SECTION 03300 – CAST-IN-PLACE CONCRETE**

### **PART 1 – GENERAL**

#### **1.01 WORK SPECIFIED**

Work included: The Work covered under this Section of these Specifications consist of furnishing all plant, labor, supervision, equipment, appliances and materials and in performing all operations in connection with the installation of reinforced concrete for all aspects of the project, all in strict accordance with the Contract Documents.

#### **1.02 RELATED WORK SPECIFIED UNDER OTHER SECTIONS**

Documents affecting work of this Section include, but are not necessarily limited to the following:

- A. Section 02220 – Excavating, Backfilling and Compacting
- B. Section 05500 – Structural Steel

#### **1.03 SUBMITTALS**

- A. Shop Drawings and Product Data.

Shop drawings and product data showing all fabricated dimensions and locations for placing of the reinforcing steel and accessories shall be submitted for review. Shop Drawings shall provide sufficient technical data to demonstrate compliance with the specified requirements. Products, materials, or information submitted for review shall not be used or fabricated until after receipt of the Engineer's review comments. Distribute only reviewed shop drawings to the job site.

- B. Mix Design.

Submit concrete mix design, with known test results, to the Engineer for review. The concrete mix design submittal shall consist of at least the following:

1. Type of cement.
2. Dry weight of cement.
3. Saturated surface-dry weights of fine and coarse aggregates.
4. Specific gravity of fine and coarse aggregates.
5. Quantities, type, name and producer of admixtures, as applicable.



6. Total weight of water, including the water that is absorbed by and on the surface of the aggregates.
7. Water to cement ratio.
8. Slump: Maximum slump, taken at the truck, will be determined based on the pump hose length. The mix designs shall include the anticipated loss of slump per 100-foot length of specified hose size.
9. Strength test data of the proposed mix design as specified herein.

Distribute reviewed mix design to testing laboratory, batch plant, and job site.

- C. Submit concrete batch tickets for each truck delivered to site. Each ticket shall note at least the following data: design mix strength; batch proportions including actual water and aggregate moisture contents; date and batch time; arrival time at site; discharge time; concrete volume; and any change to concrete made at the site.
- D. Construction Joints: Submit proposed construction and control joint details and locations for Engineer's review.

## PART 2 – PRODUCTS

### 2.01 MATERIALS

- A. Quality Assurance:
  1. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
  2. The Owner, through the Engineer, reserves the right of approval of any Subcontractor pre-qualified and selected for this portion of the Work by the Contractor. Approval will be based, in part, on a documented successful experience in performing work of a similar nature.
  3. Cast-In-Place Concrete work shall conform to all requirements of ACI 301, "Specifications for Structural Concrete for Buildings".
  4. Detailing, fabrication, and erection of reinforcing steel shall conform to ACI 318, "Building Code Requirements for Structural Concrete and Commentary" and ACI 315, "Details and Detailing of Concrete Reinforcement".
  5. Ready mix plant equipment and facilities shall conform to the "Check List for Certification of Ready Mixed Concrete Production Facilities" of the NRMCA.

B. Concrete:

1. Portland cement: Type II - low alkali conforming to ASTM C 150, "Standard Specification for Portland Cement".
2. Aggregate, general:
  - a. Shall be normal weight and uniformly graded and clean conforming to ASTM C33, "Standard Specification for Concrete Aggregates".
  - b. Do not use aggregate known to cause excessive shrinkage.
3. Aggregate, coarse: Crushed rock or washed gravel with a maximum size of 3/4".
4. Aggregate, fine: Natural washed sand of hard and durable particles varying from fine to particles passing a 3/8" screen, of which at least 12% shall pass a 50-mesh screen.
5. Water: Clean and potable.
6. Air entraining admixture shall conform to ASTM C260, "Standard Specification for Air Entraining Admixture for Concrete". The air entraining agent shall be a nontoxic concentrated solution of neutralized Vinsol resin, such as "Daravair" as manufactured by W.R. Grace Company or equivalent accepted by the Engineer.
7. Water reducing admixture shall conform to ASTM C494 "Standard Specification for Chemical Admixtures for Concrete." Water reducing agent shall be of Type A, B, C, D, E, F, or G (as noted in concrete mix design) such as "Daracem-100" or "WRDA-19" as manufactured by W.R. Grace Company or equivalent accepted by the Engineer.

B. Reinforcing Steel:

1. All reinforcing steel shall conform to ASTM 615 Grade 60, "Specification for Deformed and Plain Billet Steel Bars for Concrete Reinforcement", and shall be fusion bond epoxy coated as per ASTM A775.
2. Fabricate reinforcement to the required shapes and dimensions, within fabrication tolerances stated in the CRSI "Manual of Standard Practices."
3. Do not use reinforcement having any of the following defects:
  - a. Bar lengths, depths, or bends exceeding the specified fabricating tolerances.

- b. Bends or kinks not indicated on the Drawings or required for this Work.
  - c. Bars with cross section reduced due to excessive rust or other causes.
- C. Moisture Protection:

Curing materials for concrete cast above the tidal zone shall conform to ASTM C309, “Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete”, wet burlap, or plastic membrane.
- D. Accessories:

All spacers, chairs, bolsters, and other devices necessary for proper reinforcing steel placement shall be epoxy coated with nylon tipped legs. All reinforcing steel shall be adequately tied with nylon, epoxy, or plastic coated tie wire and supported with epoxy-coated chairs that hold the bars to the specified clearance. One chair sample shall be submitted to the Engineer for review. No clay or concrete bricks or any other material other than reviewed chairs shall be permitted to support reinforcing steel.
- E. Bonding Agent and Fusion Bonded Epoxy Coating Touch-Up:

Bonding agent shall be Sika Armathec 110 Epocem, as manufactured by Sika Corporation or an equivalent accepted by the Engineer.
- F. Product Delivery, Storage, and Handling:

Conform to the recommendations of ACI 304, “Guide for Measuring, Mixing, Transporting, and Placing Concrete”.

### PART 3 – EXECUTION

#### 3.01 INSTALLATION

- A. Concrete Mix Proportioning
  - 1. Concrete shall be proportioned by the Contractor in accordance with ACI 301. The proposed design mix, together with all the Test Records, or Trial Mix Data, as required by ACI 301, shall be submitted to the Engineer for review at least two weeks prior to the first intended placement. Submit a separate pump mix if different from concrete mix placed by conventional methods.
  - 2. Concrete shall be normal weight with a minimum compressive strength of 5000 psi at 28 days.
  - 3. Concrete shall have a maximum water to cement ratio of 0.40.

4. Concrete shall be proportioned to have a slump of 4 inches,  $\pm$  1 inch, at the discharge end of the pump hose. Use a water reducing agent as required to achieve the desired slump range. Addition of water at site will not be permitted.
5. Concrete shall contain 4% to 6% entrained air.

B. Form Construction

1. Design, erect, support, brace, and maintain formwork so it will safely support vertical and lateral loads which might be applied until such loads can be supported safely by the concrete structure in accordance with ACI 347.
2. Construct forms to the exact sizes, shapes, lines, and dimensions shown, and as required to obtain accurate alignment, location, grades, and level and plumb work in the finished structure.
3. Form coating or water shall be applied to all forms. If coating is used, it shall be applied prior to placement of reinforcing steel.
4. Form ties and spreaders shall be of such type as to leave no metal closer than 3 inches from any exposed concrete surface.

C. Reinforcement Placement

1. All epoxy coated reinforcing steel shall be protected from damage to the epoxy during handling and placement. Any epoxy coated reinforcing steel, where the epoxy has been damaged shall be either removed from the site or re-coated, at the Engineer's discretion with strict conformance to the manufacturer's instructions at the Contractors expense.
2. Place reinforcement to obtain the required coverage for concrete protection. Minimum concrete cover for all reinforcing shall be 3 inches except where specifically noted otherwise.
3. Clean reinforcement and remove loose dust, earth, and other materials which reduce bond or destroy bond with concrete other than epoxy coating.
4. Position, support, and secure reinforcement against displacement by forms, construction, and the concrete placement operations.
5. All reinforcing steel shall be continuous unless specifically detailed otherwise on the Contract Drawings. Provide dowels or lap splices of the appropriate class to maintain continuity. Unless otherwise shown on the Contract Drawings lap bars 53 bar diameters minimum. Dowels or splices shall be shown on the shop drawings and shall be subject to the field review of the

Engineer. No more than 60% of the total number of bars shall be spliced at one location.

D. Embedded Items

1. Install embedded items furnished under this Section and other Sections. All sleeves, inserts, anchors, and embedded items required for adjoining work or for its support shall be placed prior to casting concrete. All embedded items shall be positioned accurately and supported against displacement.
2. Where existing timber pile tops are to be embedded in the concrete, thoroughly clean the embedded portion of the piles of all debris and foreign matter prior to concrete placement. Do not damage the existing piles by cleaning.

E. Concrete Mixing

1. Transit-mix the concrete in accordance with provisions of ASTM C94.
2. Do not use concrete after 90 minutes from time of introduction of water to the mix.

F. Concrete Placement

1. All concrete work shall conform to the requirements of ACI 318, "Building Code Requirements for Structural Concrete".
2. Preparation:
  - a. Remove foreign matter accumulated in the forms.
  - b. Rigidly close openings left in the formwork.
  - c. Wet wood forms immediately prior to concrete placement. Wet wood forms sufficiently to tighten up cracks. Wet other material sufficiently to maintain workability of the concrete.
  - d. Use only clean tools.
3. Conveying:
  - a. Perform concrete placing at such a rate that concrete which is being integrated with fresh concrete is still plastic.
  - b. Deposit concrete as nearly as practicable in its final location so as to avoid separation due to re-handling and flowing.

- c. Do not use concrete which becomes non-plastic and unworkable, or does not meet required quality control limits, or has been contaminated by foreign materials.
    - d. Remove rejected and excess concrete from the job site.
  - 4. Placing concrete in forms:
    - a. Concrete shall be cast to full dimensions in one operation.
    - b. Free-fall of concrete during placement greater than eight feet is prohibited. The contractor shall place concrete with a tremie tube for drops greater than eight feet.
    - c. Deposit concrete in horizontal layers not deeper than 24 inches, and avoid inclined construction joints.
    - d. Remove temporary spreaders in forms when concrete has reached the elevation of the spreaders.
  - 5. Consolidation
    - a. Consolidate each layer of concrete immediately after placing, by use of internal concrete vibrators supplemented by hand spading, rodding, or tamping.
    - b. Do not use vibrators to transport concrete inside the forms.
  - 6. Construction Joints
    - a. Do not use horizontal construction joints.
    - b. Secure the Engineer's review of joint design and location prior to start of concrete placement.
- G. Curing And Protection
  - 1. Beginning immediately after placement, concrete shall be protected from premature drying, excessively hot or cold temperatures, and mechanical damage and shall be maintained with minimal moisture loss at a relative constant temperature for the period necessary for hydration of the cement and hardening of the concrete.
  - 2. Concrete surfaces not covered by forms or within the inter-tidal elevations shall be protected from loss of surface moisture for not less than seven days using moisture protection as specified herein.

3. If cold-weather concreting is anticipated, a preconstruction meeting should be held to define how cold weather concreting methods will be used. When the mean daily ambient temperature is at or below 40 degrees F or 45 degrees F and falling the Contractor shall follow the requirements of ACI 306.1, "Standard Specification for Cold Weather Concreting":
  - a. Set up proper enclosure and heat to 50 degrees F for at least two (2) hours before starting any pour. Set up individual thermometers within enclosure to monitor ambient temperatures near the face of fresh concrete. Thermometers shall be placed at a maximum of 50-foot centers, at major corners or returns, and at ends of concrete sections. Monitor and record temperatures in a log at early morning, noon, and early evening.
  - b. Use a water-reducing admixture with an accelerated set, but do not use or rely upon any material as an anti-freeze. Use of calcium chloride is forbidden.
  - c. Use vented heaters with blowers so placed that they do not produce localized hot spots which may dry out the concrete. Exposure to exhaust gases from combustion heaters is prohibited for the first 24 hours of the curing period.
  - d. Maintain the temperature of the formwork at not less than 50 degrees F but not greater than 70 degrees F for 48 hours after completion of pour; formwork may be stripped after 72 hours after completion of pour. After 48 hours of maintaining at least 50 degrees F, the temperature may be allowed to drop gradually and shall be kept above 32 degrees F for a period of seven (7) days after completion of pour. Protection during this period may be provided by existing enclosure or by means indicated in note 5 below.
  - e. Protection may be provided by use of insulation methods. Adequate insulation shall consist of at least one of the following:
    - 12" of dry earth; provide moisture cover if over slab concrete.
    - 4" of hay under adequate moisture cover.
    - 1" of insulation blankets with vapor barrier seal.
    - Other insulating material acceptable to the Engineer.
- NOTE: Extreme conditions of temperature or wind may require more protection.
- f. Concrete may not be placed on frozen ground.
- g. All frozen concrete shall be removed from the job and replaced at a cost to the Contractor.

4. When the mean daily ambient and substrate temperature is above 80 degrees F, the Contractor shall follow the requirements of ACI 305.1, "Standard Specification for Hot Weather Concreting". Concrete shall be protected from thermal damage. Provisions for windbreaks, shading, fog spraying, sprinkling, ponding, or wet covering with a light colored material shall be made in advance of placement and such protective measures shall be taken as quickly as concrete hardening and finishing operations will allow.
  - a. No concrete shall be placed when the air temperature is above 90 degrees F unless the air is still and relative humidity is above 80%.
  - b. Set up proper windbreakers for concrete surfaces whenever the relative humidity is less than 70% for slight air motion or 80% for light breezes.
  - c. Provide shade for pours otherwise exposed to the sun.
  - d. Concrete is to be at a temperature of 80 degrees F or less when placed. If necessary, the batching plant shall cool aggregates by spraying or by using chilled water or ice. All such water shall be accounted for as part of the mixing water.
  - e. Use an admixture with a retarded set.
  - f. All forms shall be thoroughly wetted at least daily and more often when the relative humidity is low.
  - g. For slabs, maintain the required materials for curing on hand, so they may be placed immediately upon finishing. All concrete placed in ambient temperatures over 80 degrees F shall be kept wet for a minimum of 24 hours. Intermittent spraying will not be permitted. No water shall be applied before concrete has acquired its initial set. When the concrete temperature of any slab goes above 100 degrees F, place a layer of sand on it and keep it continuously wet until the temperature is below 80 degrees F.

H. Finishing

1. Remove all fins, blemishes, and defective concrete areas and patch where required with reworked cement mortar of the same proportions as that used in the concrete.
2. Form tie holes shall be plugged solid with reworked cement mortar of the same proportions as that used in the concrete.
3. Exposed surfaces of concrete shall receive a wood float finish.



3.02: Testing:

- A. All testing shall be performed by a NVLAP accredited testing laboratory paid by the Owner and approved by the Engineer and Building Inspector.
- B. The testing laboratory shall maintain a full time Professional Engineer on staff who shall stamp and sign all test reports.
- C. A minimum of four compression test specimens shall be made for each 50 cubic yards or portion thereof of concrete or not less than four for each day's placement. One cylinder shall be tested at seven days and three at 28 days. If any one of the first two cylinders tested at 28 days does not achieve the specified compressive strength, the last cylinder shall be tested at 56 days. The specimens shall be carefully stored and transported so as not to damage them in any way. Records shall be kept, identifying each cylinder with the locations of placement from which test cylinders were taken. Cylinders shall be cast in accordance with ASTM C31 and tested in accordance with ASTM C39.
- D. Slump tests shall be performed on every concrete truck load in accordance with ASTM C143.
- E. Air content shall be tested by the pressure pot method in accordance with ASTM C231. Air content tests shall be performed when each set of test cylinders are cast.
- F. If any concrete fails to develop the required 28-day strength, the Engineer may order core tests at the Contractor's expense, and if the concrete in place is below strength, the Engineer may order the removal and replacement of such concrete at the Contractor's expense, including the extra cost of the Architect's and Engineer's inspections and redesign.
- G. Test reports shall be submitted to the Engineer, Special Inspector, Contractor, and Building Inspector within 10 days of the date of test. If any test fails to meet the specifications, the Engineer shall be immediately notified by telephone or fax.

PART 4 - COMPENSATION

4.01 Measurement and Payment

- A. Include in the Contract Sum all costs for Work under this Section in the quantity shown on the Contract Drawings.
- B. No separate payment will be made for Work performed under this Section.

**END OF SECTION**

**DIVISION 5**  
**METALS**

**SECTION 0550**  
**STRUCTURAL STEEL**

## **SECTION 05500 – STRUCTURAL STEEL**

### **PART 1 – GENERAL**

#### **1.01 WORK SPECIFIED**

Work included: Provide miscellaneous structural steel items including but not limited to accessories as shown on the Drawings, specified herein, and needed for a complete and proper installation.

#### **1.02 RELATED WORK SPECIFIED UNDER OTHER SECTIONS**

Documents affecting work of this Section include, but are not necessarily limited to the following:

- A. Section 02458 – Steel Piles
- C. Section 05520 – Metal Fabrications

#### **1.03 SUBMITTALS**

- A. Sufficient technical data to demonstrate compliance with the specified requirements.
- B. Complete shop drawings detailing all members, profiles, sizes, spacing, proposed cuts, connections, camber, holes, openings, fasteners, and similar data. Erection plans showing the location and field connection of all members. Identify members by piece numbers which correspond to erection numbers. Structural steel connection details not specifically shown in the Contract Documents shall be detailed by the Contractor and included with shop drawing submittals.
- C. Submit manufacturer's certifications showing that the products meet or exceed the required standards for the following items:
  - 1. Bolts, including nuts and washers.
  - 2. Threaded rods including all hardware.
  - 3. Filler material and flux for welding.
  - 4. Expansion bolts.
- D. Submit Certified Mill Test Reports indicating structural strength, destructive and non-destructive test analysis, chemical and physical properties of each type of steel and conformance with ASTM A6.

- E. Submit welder's certificates certifying welders employed on the Work, verifying AWS qualifications within the previous twelve months.

## PART 2 – PRODUCTS

### 2.01 MATERIALS

#### A. Quality Assurance

1. Use adequate number of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the Work of this section.
2. Perform welding with electric arc process and in accordance with AWS "Code for Arc and Gas Welding in Building Construction".
3. In addition to complying with pertinent codes and regulations, comply with:
  - a. AISC "LRFD Specification for Structural Steel Buildings", December 27, 1999.
  - b. AISC "Manual of Steel Construction – Load and Resistance Factor Design".

- B. Structural Steel Shapes shall conform to ASTM A572 or ASTM A992 Grade 50 ksi yield.
- C. Steel Angles, Channels and Plates shall conform to ASTM A36, 36 ksi yield.
- D. Anchor rods shall conform to ASTM F1554, for 36, 55 and 105 ksi yield strength.
- E. Carriage bolts and Lag screws shall conform to ASTM A307, Grade A.
- F. High Strength Structural Bolts: Shall conform to ASTM A325 with hexagonal heads.
- G. Nuts: Shall be hexagonal and conform to ASTM A563.
- H. Washers (except against timber): Shall conform to ASTM F436.
- I. Threadbar Rods and Nuts: DYWIDAG Threadbar or equivalent accepted by the Engineer, shall conform to ASTM A615, Grade 60.
- J. Adhesive Anchors: Adhesive shall be HIT HY150 Injection Adhesive Anchor as manufactured by Hilti Corporation, or equivalent acceptable to the Engineer. Anchor rods shall be as specified above for threadbar anchors.

- K. Expansion bolts: Shall be galvanized Trubolt, as manufactured by ITW Ramset/Redhead or equivalent accepted by the Engineer.
- L. Welding Materials: AWS D1.1; Type E70XX or type required for materials being welded.
- M. Grout: Non-shrink, non-metallic, high performance cement based grout conforming to ASTM C827 such as Sikagrout 212 as manufactured by Sika Corporation or equivalent accepted by the Engineer.
- N. Fabrication:
  - 1. Fabricate items of structural steel in accordance with AISC specifications and as shown on the accepted shop drawings.
  - 2. Properly mark materials for field assembly and for identification of the structure and location intended. Fabricate for delivery sequence which will expedite erection and minimize field handling of Materials.
  - 3. Provide bolts, nuts, and washers of all types and sizes required for completion of field erection.
  - 4. Comply with AWS code for procedures, appearance, and quality of welds, and methods used in correcting welded work.
  - 5. Cut, drill, or punch holes perpendicular to metal surfaces. Do not flame cut holes or enlarge holes by burning. Drill holes in bearing plates. No holes will be allowed unless first shown on the Shop Drawings and accepted by the Engineer.
  - 6. Should holes be required in addition to those provided under this Section, provide all such holes and strengthen the area as required to compensate but only as accepted by the Engineer.
  - 8. Where finishing is required, complete the assembly, including welding of units, before start of finishing.
  - 9. Provide finish surfaces of members exposed in the final structure free from markings, burrs, and other defects.
  - 10. Assemble and weld built-up sections by methods which will produce true alignment of axes without warp.
- O. Protective Coating

1. General: Unless specifically noted otherwise, all items scheduled to receive protective coating shall be fully fabricated with holes, cuts, threads, etc. prior to receiving protective coating, prior to delivery to site.
2. Steel Sections: Unless specifically noted otherwise, all steel sections shall be shop coated prior to delivery to site in accordance with Section 09905.
3. Bolts, Nuts, and Washers: All bolts, nuts, and washers shall be hot dipped galvanized in accordance with ASTM A153.
4. Threadbar Rods, and Nuts: Epoxy coated in accordance with ASTM A775.
5. Adhesive Anchor Rods: anchor rods, nuts, and washers shall be hot-dipped galvanized in accordance with ASTM A153.
6. Field Touch-Up of Epoxy-Coated Items: Shall be performed in accordance with Section 09905 of the Specifications.
7. Field Touch-Up shall be performed using ZRC Galvilite repair compound or equivalent accepted by the engineer. Surface preparation and coating application shall be in strict accordance with manufacturer's written instructions.

P. Other Material

Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the review of the Engineer prior to final installation.

Q. Product Handling and Storage

1. Deliver materials to the job site properly marked to identify the location for which they are intended.
2. Use markings corresponding to markings shown on the reviewed shop drawings.
3. Store in a manner to maintain identification and prevent damage, off the ground, using pallets or other supports, and to permit easy access for inspection.

### PART 3 – EXECUTION

#### 3.01 INSTALLATION

A. Surface Conditions

Examine the areas and verify the conditions under which work of this section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.

B. Erection

1. Surveys:

- a. Establish benchmarks necessary for accurate erection of structural steel.
- b. Check elevations of concrete surfaces, and locations of anchor bolts and similar items, before erection proceeds.

2. Temporary shoring and bracing:

- a. Provide temporary shoring and bracing members with connections of sufficient strength to bear imposed loads.
- b. Provide temporary guy lines to achieve proper alignment of the structure as erection proceeds.
- c. Remove temporary connections and members when permanent members are in place and final connections are made.
- d. Field touch-up protective coating where damaged.

3. Anchor bolts:

- a. Install anchor bolts and other connectors required for securing structural steel to adjacent work as shown on the Contract Drawings.
- b. Provide templates and other devices as needed for presetting bolts and other anchors to accurate locations.

4. Field Assembly:

- a. Set structural frames accurately to the lines and elevations indicated.
- b. Align and adjust the members forming part of a complete frame or structure before fastening permanently.
- c. Clean the bearing surfaces and other surfaces which will be in permanent contact before assembly.



- d. Adjust as required to compensate for discrepancies in elevation and alignment.
  - e. Level and plumb individual members of the structure within specified AISC tolerances.
  - f. Establish required leveling and plumbing measurements on the mean operating temperature of the structure, making allowances for the difference between temperature at time of erection and the mean temperature at which the 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 welds.
5. Gas cutting:
- a. Do not use gas cutting torches for correcting fabricating errors in structural framing, except on secondary members where acceptable to the Engineer.
  - b. When gas cutting is permitted, finish the gas cut section to a sheared appearance acceptable to the Engineer.
6. Expansion Bolts and Adhesive Anchors: Install anchors in strict accordance with manufacturers written instructions.
7. Field Welding: Where field welds are scheduled, surfaces to be joined are to be properly prepared, including removal of any existing coatings prior to welding. Following welding, prepare and touch-up all areas requiring coating as set forth in Section 09905.

**END OF SECTION**

**SECTION 05520**  
**METAL FABRICATIONS**

## **SECTION 05520 – METAL FABRICATIONS**

### **PART 1 – GENERAL**

#### **1.01 DESCRIPTION**

- A. Work included: This section covers all miscellaneous metal and metal fabrications, complete, in place, as shown on the drawings, specified herein, or needed for a complete and proper installation and not specifically called for under other Sections of these Specifications. Work will include but not be limited to connections between longitudinal beams and piles, chafing strips to steel pipe piles, anchors, ladders, pile clamps, special fabrications, and additional steel framing/trim.
- B. Related work described elsewhere: The following Sections contain requirements that relate to this Section:

Section 02361	Timber Piles
Section 02458	Steel Piles
Section 05500	Structural Steel

#### **1.02 REFERENCE SPECIFICATIONS AND STANDARDS, QUALITY ASSURANCE**

Standards: Work and materials shall comply with standards specified herein as listed below and otherwise appropriate including NAAMM (National Association of Architectural Metal Manufacturers) for metal fabrications

- A. ANSI
- B. AMERICAN SOCIETY FOR TESTING AND MATERIALS

ASTM A36, Steel plates, channels, angles, rods and bars.  
ASTM 572 Grade 50, HP and Rolled WF sections.  
ASTM A526, with ASTM A525, G90, Zinc Coating.  
ASTM A53, Steel pipe.  
AISI Grade 316, Stainless Steel  
ASTM A 123 Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products

- C. AWS/D 1.1, 1.3, Structural welding code for steel and sheet steel

1.03 SUBMITTALS - Within 15 calendar days after award of Contract, submit samples, catalog spec sheets and/or shop drawings of or for each item in this section according to the Conditions of the Contract and other associated specification sections.

- A. Product data:
  - 1. Provide a complete materials list of all items proposed to be furnished and installed under this Section.

2. Manufacturers' specifications and other material or product data required to demonstrate compliance with specified requirements.
3. Shop drawings detailing fabrication and installation of each metal fabrication indicated. Include:
  - a. Plans, elevations, sections, and details of metal fabrications and their connections.
  - b. Show anchorage and accessory items, installation nuances.
  - c. Provide template sketches for anchors and bolts specified for installation under this and other Sections as appropriate.
4. Provide samples representative of materials and finished products as may be requested by the Town Rep and/or Engineer if substitutions from the product specified are requested by the contractor.

B. Qualifications

1. Qualifications of personnel: Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts in accordance with NAAMM standards and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
2. Special licenses including welder certificates, signed by Contractor certifying that welders comply with requirements specified, and field welding safety and QC procedures.
3. Qualification data for manufacturing firms or persons, specified in the quality assurance articles, to demonstrate their capabilities and experience. Include a list of completed projects with project name, addresses, names of architects and General Managers, and other information specified.

1.04 QUALITY ASSURANCE

- A. Fabricator Qualifications: Use only subcontractor or supplier firms experienced in producing metal fabrications to standards set forth by NAAMM similar to those indicated for this project with a record of successful in-service performance, and with sufficient production capacity to produce required units without delaying the Work.
- B. Welding Standards: Comply with applicable provisions of AWS D1.1 "Structural Welding Code - Steel, and AWS D1.3 "Structural Welding Code - Sheet Steel."
- C. Certify that each welder has satisfactorily passed AWS qualification tests for welding processes involved and, if pertinent, has undergone recertification.

## 1.05 PROJECT CONDITIONS

- A. Field Measurements: Check actual locations of existing conditions and new piles or other construction to which metal fabrications must fit by accurate field measurements before fabrication of steel pier framing. Show recorded measurements on final shop drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
- B. Protection: Use all means necessary to secure, protect the materials of this Section before, during, and after installation and to protect the work and materials of all other trades and to protect the public from inadvertent entry access to storage and staging areas. Do not leave equipment or materials loose or precariously balanced such that there is any blatant or subtle threat to public safety.
- D. Replacements: In the event of damage to new or existing work to remain, immediately make all repairs and replacements necessary to the approval of the Engineer and at no additional cost to the General Manager.

## PART 2 - PRODUCTS

### 2.01 FERROUS METALS

- A. Metal Surfaces, General: Metal fabrications are exposed to view but also more importantly, severe corrosion due to marine environment in the completed Work. Provide and utilize materials selected for their surface flatness, smoothness, and freedom from surface blemishes. Do not use materials with exposed pitting, seam marks, roller marks, rolled trade names, or roughness.
- B. Steel Plates, Channels, Angles, Bars ASTM A 36
- C. Steel WF and HP sections ASTM A572 Grade 50
- E. Steel Pipe ASTM A53, Extra Strong unless otherwise indicated (such as rail post sleeves).
- F. Gray-Iron Castings ASTM A 48, Class 30
- G. Malleable-Iron Castings ASTM A 47, Grade 32510
- I. Epoxy Adhesive for Concrete Anchorage: Hilti HY-150 Max Adhesive Anchoring System using HAS Stainless Steel rod, nut and washers.
- J. Welding Rods and Bare Electrodes: Select according to AWS specifications for the metal alloy to be welded.

### 2.02 COATINGS: All shop fabricated steel components in this project shall be hot-dip galvanized.

- A. Galvanizing: All galvanizing shall be American hot dip galvanizing for marine applications, 2 oz. per square foot in accordance with ASTM 153 specifications referenced.

- B. Where galvanized framing coating is disrupted by field welding or other marring, scrape, file, or grind smooth and apply zinc rich cold-galvanizing paint.

## 2.03 FASTENERS

- A. General: Provide hot dip galvanized fasteners for exterior use for type, grade, class required.
- B. Bolts and Nuts - Regular hexagon-head bolts, ASTM A 307, Grade A (ASTM F 568, Property Class 4.6), with hex nuts, ASTM A 563 (ASTM A 563M), and, where indicated, flat washers.
- C. Lag Bolts: ANSI B18.2.1 (ANSI B18.2.3.8M)
- D. Plain Washers: Round, carbon steel, ANSI B18.22.1 (ANSI B18.22M) with all bolts.
- E. Lock Washers: Helical, spring type, carbon steel, ANSI B18.21.1.

## 2.04 SPECIAL EQUIPMENT ASSOCIATED WITH METAL FABRICATIONS

- A. All specialty equipment or designed attachments for connections between longitudinal I beams and steel H piles shall be top quality, extra heavy duty components as shown in drawing details or designed for loads indicated on the drawings or specified herein and suitably protected by coatings for the highly corrosive marine environment.

# PART 3 - FABRICATION AND INSTALLATION

## 3.01 FABRICATION GENERAL

- A. Fabricate metal pier frame and additional components from materials of size, thickness, and shapes indicated but not less than that needed to comply with performance requirements indicated. Work to dimensions indicated or accepted on shop drawings, using proven details of fabrication and support. Use type of materials indicated or specified for various components of each metal fabrication.
- B. Fabricate exposed work true to line and level with accurate angles and surfaces and straight, round or beveled edges.
- C. Shear, punch, and drill metals cleanly and accurately, remove burrs.
- D. Ease exposed edges to a radius of approximately 1/32 inch (1 mm), unless otherwise indicated.
- E. Remove sharp or rough areas on all exposed surfaces.
- F. Weld all corners and seams continuously to eliminate concealed corrosion access points

and comply with the following:

1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
  2. Obtain fusion without undercut or overlap.
  3. Remove welding flux immediately and grind smooth any rough areas.
  4. At exposed connections, finish exposed welds and surfaces smooth and blended so that no roughness shows or remains after finishing, and contour of welded surface matches those adjacent.
- G. Form exposed connections. Use exposed fasteners of type indicated. Locate joints where least subject to damage.
- H. Provide for anchorage of type indicated; coordinate with supporting structure. Fabricate and space anchoring devices to secure pier fabrications in place and to support indicated loads.
- I. Shop Assembly: Pre-assemble items in shop where possible to minimize field splicing, welding and assembly. Disassemble units only as necessary for shipping and handling limitations. Use connections that maintain structural capacity of joined pieces. Clearly mark units for re-assembly and coordinated installation.
- J. Cut, reinforce, drill and tap metal fabrications as indicated to receive finish hardware, screws and similar items.
- K. Fabricate joints, as all will be exposed to weather, in a manner to exclude water and provide weep holes where water may accumulate.
- L. Welding: Perform all shop and field welding required in connection with the work of this Section, adhering strictly to the current pertinent recommendations of the American Welding Society, both for worker safety and material handling

### 3.02 ROUGH HARDWARE

- A. Furnish bent or otherwise custom-fabricated, bolts, plates, anchors, hangers, dowels, and other miscellaneous steel and iron shapes as required for framing and pier support and for anchoring or securing work to concrete.
- B. Fabricate items to sizes, shapes, and dimensions required. Furnish malleable-iron washers for heads and nuts that bear on structural connections and furnish steel washers elsewhere.
- C. Coatings: Galvanize hardware to match the metal fabrications or use stainless steel.

### 3.03 MISCELLANEOUS FRAMING AND SUPPORTS

- A. General: Provide steel framing and supports for applications indicated that are not a part of structural steel framework but otherwise required to complete the Work.
- B. Fabricate units to sizes, shapes and profiles indicated and required to receive other adjacent construction retained by pier framing and supports. Fabricate from structural steel shapes, plates, and steel bars of welded construction using mitered joints for field connection as needed. Cut, drill and tap units to receive hardware, restraints, hangers and similar items.
- C. Braces and Angles: Steel angles of size required for rigid support and for secure anchorage. Minimum thickness of any member is to be 1/2 inch.
- D. Miscellaneous Steel Trim
  - 1. Unless otherwise indicated, fabricate units from structural steel shapes, plates, and bars as shown with continuously welded joints, and smooth exposed edges. Miter corners and use concealed field splices wherever possible.
  - 2. Provide cutouts, fittings, and anchorages as required to coordinate assembly and installation with other work

### 3.04 FINISHES, GENERAL

- A. Steel and Iron Finishes
  - 1. Galvanizing: For those items indicated for galvanizing, apply zinc coating by the hot-dip process complying with the following requirements:
    - ASTM A 153 for galvanizing iron and steel hardware.
    - ASTM A 123 for galvanizing both fabricated and un-fabricated iron and steel products made of uncoated rolled, pressed, and forged shapes, plates, bars, and strip 0.030 inch thick or thicker, for use in a marine environment, 2 ounces per square foot.
    - ASTM A 386 for galvanizing assembled steel products.

### 3.05 EXECUTION

- A. PREPARATION
  - 1. Coordinate and furnish anchorages, setting drawings, diagrams, templates, instructions, and direction for installing anchorages, including concrete inserts, sleeves, anchor bolts, and miscellaneous items having integral anchors that are



to be embedded in concrete or masonry construction.

2. Coordinate delivery, storage, and installation of such items to Project site.

B. INSTALLATION, GENERAL

1. Fastening to In-Place Construction: Provide anchorage devices and fasteners where necessary for securing miscellaneous metal fabrications to in-place construction.
2. Cutting, Fitting, and Placement: Perform cutting, drilling, and fitting required for installing miscellaneous metal fabrications. Set metal fabrication accurately in location, alignment, and elevation; with edges and surfaces level, plumb, true, and free of rack; and accurately located, measured from established lines and levels.
3. Provide and attach bracing as needed and where indicated.
4. Fit exposed connections accurately together to form hairline joints. Field weld connections that are not to be left as exposed joints but cannot be shop-welded because of shipping size limitations. Do not weld, tack, cut, or abrade the surfaces of exterior units that have been hot-dip galvanized after fabrication and are intended for bolted or screwed field connections.
5. Field Welding: Comply with the following requirements:
  - a. Grind / wire wheel clean area to be welded.
  - b. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
  - c. Obtain fusion without undercut or overlap.
  - d. Remove welding flux immediately.
  - e. At exposed connections, finish exposed welds and surfaces smooth and blended so that no roughness shows after finishing, and contour of welded surface matches those adjacent.
6. Adjusting and Cleaning
  - a. For galvanized surfaces, clean welds, bolted connections, an abraded area, and apply galvanizing repair paint to comply with ASTM A780.

**PART 4 - MEASUREMENT**

- 4.01 The method of measuring acceptable work covered under these Metal Fabrication Specifications will be as follows:
- A. Measurement for pier framing and additional components will consist of the finished metal framework, angle and bar stock bracing all accessories furnished and installed, complete and in place and operational, accepted by the Engineer on a basis incorporated into various bid items.

**PART 5 - BASIS OF PAYMENT**

- 5.01 The pay items for respective components of the work covered under these metal fabrication specifications are furnished and installed as components of other sections of the work unless stated otherwise, and must be a part of the approved Schedule of Values.
- 5.02 The galvanized safety ladder(s) will be paid for on a per each basis.

**END OF SECTION**

**DIVISION 6**  
**WOOD AND PLASTIC**

**SECTION 06125**  
**TIMBER DECKING**

## **SECTION 06125–TIMBER DECKING**

### **PART 1 - GENERAL**

#### **1.01 DESCRIPTION**

- A. Work included: Timber decking for the construction of the pile-supported timber pier as shown on the Drawings.
- B. Related work:
  - 1. Documents affecting work of this Section include, but are not necessarily limited to Division 1 of these Specifications, and Section 06130 in division6.

#### **1.02 REFERENCE**

- A. American Lumber Standards Committee (ALSC)
  - 1. Softwood Lumber Standards
- B. American Society for Testing and Material (ASTM)
  - 1. A123 – Zinc (Hot Galvanized) Coasting on Products Fabricated from Rolled, Pressed, and Forged Steel Shapes, Plates, Bars, and Strips.
  - 2. A153 – Specifications for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
  - 3. A307 – Carbon Steel Externally or Internally Threaded Standard Fasteners.
- C. American Wood Preservers Association (AWPA)
  - 1. C18 – Standard for Pressure Treatment Material in Marine Construction
  - 2. M4 - Care of Pressure Treated Wood Products.
- D. National Forest Products Association (NFPA)
  - 1. National Design Specification for Wood Construction

#### **1.03 QUALITY ASSURANCE**

- A. Lumber Grading Agency: Certified by ALSC.
- B. Contractor to provide technical data on wood preservative material and

application instructions.

- C. In lieu of grade stamping, Contractor to submit manufacturer's certificate that product meet or exceed specified requirements.

## PART 2 - PRODUCTS

### 2.01 MATERIALS

- A. Lumber Grading Rules: NFPA.
- B. Lumber Decking: Southern Yellow Pine No. 2 Dry (MC19) or better, or Douglas Fir Select Decking, S4S

### 2.02 ACCESSORIES

- A. Fasteners: Carbon Steel ASTM A307 and Galvanized in accordance with ASTM A123 and A153 for exterior and treated wood locations, as shown on Contract Drawings.

### 2.03 FABRICATION

- A. Contractor to verify dimensions and site conditions prior to fabrications.
- B. All timber cut or drilled in any manner on-site shall receive penetrating sealer in accordance with AITC requirements.

### 2.04 WOOD TREATMENT

- A. Wood Preservative (Pressure Treatment): All timber shall be treated with water borne preservatives in accordance with AWPA standard C18. Decking shall have a minimum MCA retention of 0.7pcf.
- B. Wood Preservative (Surface Application): Colored, type.

## PART 3 - EXECUTION

### 3.01 INSPECTION

- A. Contractor to verify that surfaces are level and ready to receive decking.
- B. Contractor to verify that lumber is dry (MC19) prior to installation.

### 3.02 INSTALLATION

- A. Decking lumber will be placed to the dimensions indicated by the Drawings.
- B. Install decking with hardwood down, using 8 1/2-inch long by 0.285" diameter

deck spikes (2 per intersection). Deck planks shall be spaced 1/8 inch.

### 3.03 SITE APPLIED WOOD TREATMENT

- A. Site-sawn ends of timber shall have preservative treatment applied in accordance with manufacturer's instructions. Preservative shall be allowed to cure prior to erecting members.

## PART 4 - COMPENSATION

### 4.01 Measurement and Payment

- A. Include in the Contract Sum all costs for Work under this Section in the quantity shown on the Contract Drawings.
- B. Payment for Work under this Section shall be based on percent complete and accepted by the Owner.
- C. Payment for Additional Work performed as directed on a unit price basis will be based upon units complete and accepted by the Owner.

**END OF SECTION**

**SECTION 06130**  
**HEAVY TIMBER FRAMING**



## **SECTION 06130–HEAVY TIMBER FRAMING**

### **PART 1 - GENERAL**

#### **1.01 DESCRIPTION**

- A. Work included: The work covered by this section of these Specification consist of furnishing all plant, labor, supervision, equipment, appliances and materials and in performing all operations with the installation of the necessary material to construct the timber pier, including but not limited to timber piles, timber framing, timber decking, bracing, metal brackets, and miscellaneous fasteners as indicated by the Drawings.
- B. Related work:
  - 1. Documents affecting work of this Section include, but are not necessarily limited to Division 1 of these Specifications, Section 02361, and Section 06125.

#### **1.02 REFERENCE**

- A. American Lumber Standards Committee (ALSC)
  - 1. Softwood Lumber Standards
- B. American Society for Testing and Material (ASTM)
  - 1. D245 – Methods for Establishing Structural Grades and Related Allowable Properties for Visually Graded Lumber.
  - 2. D2555 – Methods for Establishing Clear Wood Strength Values.
  - 3. A123 – Zinc (Hot Galvanized) Coasting on Products Fabricated from Rolled, Pressed, and Forged Steel Shapes, Plates, Bars, and Strips.
  - 4. A153 – Specifications for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
  - 5. A307 – Carbon Steel Externally or Internally Threaded Standard Fasteners.
- C. American Wood Preservers Association (AWPA)
  - 1. C1 – All Timber Products – Preservative Treatment Pressure Process.
  - 2. C2 – Lumber, Timbers, Bridge Ties and Mine Ties - Preservative Treatment by Pressure Process.

3. C18 – Standard for Pressure Treatment Material in Marine Construction.
4. M4 - Care of Pressure Treated Wood Products.

D. American National Standards Institute/American Welding Society

1. D1.1 – Structural Welding Code.

E. National Forest Products Association (NFPA)

1. National Design Specification for Wood Construction

F. American Wood Preservers Bureau (AWPB)

1. MLP – Standard for Softwood Lumber, Timber, and Plywood Pressure Treated for Marine (Saltwater) Exposure.

### 1.03 QUALITY ASSURANCE

- A. Use adequate number of workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work in this Section.
- B. The Owner reserves the right of approval of any Subcontractor pre-qualified and selected for this portion of the Work by the Contractor. Approval will be based, in part, on:
  1. Documented successful experience in performing work of a similar nature.
  2. Acceptable schedule of unit prices for measurement and payment in event of changes in the Work of this Section
- C. Lumber Grading Agency: Certified by ALSC.
- D. Comply with the requirements of the "Wood Engineering Handbook" by US Forest Products Laboratory, except as may be modified herein.
- E. All visually graded structural lumber and wood construction shall conform to the "National Design Specification for Wood Construction", and its Supplement, "Design Values for Wood Construction" by the National Forest Products Association.

### 1.04 SUBMITTALS

- A. Contractor to provide technical data on wood preservative material and application instructions.

- B. In lieu of grade stamping, Contractor to submit manufacturer's certificate that product meet or exceed specified requirements prior to installation of any timber or hardware.

#### 1.05 PRODUCT DELIVERY AND STORAGE

- A. The Contractor shall notify the Owner twenty-four hours in advance of delivery of timber materials. The Contractor guarantees timber shall be stored in a safe manner within Owner designated area provided on the site.
- B. Wood products delivered at the site shall be carefully piled, off the ground, in such a manner as to assure proper drainage, ventilation, and protection from the weather.
  - 1. All lumber and timber shall be stored under dry conditions.
  - 2. All lumber shall be stored in a manner to permit easy access for inspection.
  - 3. Care of pressure treated wood products shall comply with APWA Standard M4.
- B. Hardware and fasteners shall be stored in their original containers and under dry condition until ready for use.

### PART 2 - PRODUCTS

#### 2.01 MATERIALS

- A. Lumber Grading Rules: NFPA, RIS, SPIB, SFPA, WCLIB and WWP.
- B. Stringers, pile caps, bracing, and blocking and any other timber members shall be Southern Yellow Pine No. 2.
- C. All timber, except oak, shall have pressure treatment in conformance with AWPA M4 and P8 chromated copper arsenate (CCA) in accordance with AWPA C2 and C18 timber exposed to marine borer attack. Pile caps, stringers, and fenders shall have minimum retention of 0.6 pounds per cubic foot of CCA treatment. Bracing, wales, blocking, and strakes shall have minimum retention of 2.5 pounds per cubic foot of CCA treatment. The presence of the AWPA quality mark MLP shall be accepted as evidence of conformance to this specification.
- D. Cut or drilled surfaces of all timbers shall be treated with a minimum of two saturated coats of copper naphthenate preservative (min. 2% metallic copper) in accordance with AWPA M4 and P8.
- E. Pieces of exceptionally lightweight material will not be accepted.

- F. Lumber shall be surfaced on all four sides unless otherwise noted.

## 2.02 ACCESSORIES

- A. Bolts, Nuts, Washers, Lags, and Drift Pins: Medium carbon steel; galvanized coating; size and type to suit application in conformance with ASTM A153.
- B. Washers shall be round steel plate, and 1/4" minimum thickness, galvanized.
- C. Galvanizing – All hardware and plates shall be hot-dipped galvanized after fabrication and treading of stock, in accordance with ASTM A153.
- D. Furnish Certificates of Compliance with ASTM Specifications and Standards specified herein. Each certificate to be signed by Contractor and Galvanizer certifying that steel materials, bolts, nuts, washers and items of iron and steel hardware in conformance to specified requirements, and that the galvanizing is in full conformance with these Specifications.
- E. Galvanized materials are to be given passivating treatment to prevent wet storage stain. Treatment shall consist of quenching newly galvanized material in a water quench containing not more than 0.2% sodium dichromate.

## 2.03 FABRICATION

- A. Contractor to verify dimensions and site conditions prior to fabrications.
- B. All timber cut or drilled in any manner on-site shall receive penetrating sealer in accordance with AITC requirements. Joints shall be neatly fitted, welded, and ground smooth.

## 2.04 FINISHES

- A. Galvanize connectors in accordance with ANSI/ASTM A123 and A153.

## PART 3 - EXECUTION

### 3.01 ERECTION

- A. Set structural members level and plumb, in correct position as indicated on the Contract Drawings.
- B. Make provisions for erection loads, and for sufficient temporary bracing to maintain structure safe, plumb, and in true alignment until completion of the erection and installation of permanent bracing.
- C. Holes for machine bolts shall be bored a bit 1/16" larger than the bolt diameter, and holes for drift bolts shall be 1/16" smaller than the bolt diameter as approved by the Structural Engineer of Record (SER).

- D. Drilled holes shall be thoroughly flushed with preservative. Similarly, cut timber surfaces shall be given two brush coats of preservative before installation, in accordance with AWP A STD. M4.
- E. All bolts shall bear on round plate washers under the nut and the head. Pile cap bolts shall be countersunk.
- F. After nuts have been tightened, there shall be at least 1/2", but not more than 2", of exposed thread beyond the nuts.
- G. After erection, touch-up galvanized surfaces with primer consistent with shop coat.
- H. Fastening to In-Place Construction: Provide anchorage devices and fasteners where necessary for securing timber to itself, or to in-place construction.
- I. Cutting, Fitting, and Placement: Perform cutting, drilling and fitting required for installation of structural timber. Provide temporary bracing as required. For items required to fit previously constructed spaces, take measurements as the site and fabricate to fit actual spaces. Repair cut surfaces with preservative brushed on to dry surface as recommended by the manufacturer.
- J. Fit exposed connections accurately together to form tight joints. Cut exposed joints smooth and repair cut surfaces. Do not cut or abrade the surfaces of items which have been hot-dipped galvanized.
- K. Fastening of one member to another shall be accomplished in such a manner that no cracking or splitting of timber members shall occur. Cracked or split members shall be replaced by the Contractor, to the approval of the Engineer, at no additional cost to the Owner.

#### PART 4 - COMPENSATION

##### 4.01 Measurement and Payment

- A. Include in the Contract Sum all costs for Work under this Section in the quantity shown on the Contract Drawings.
- B. Payment for Work under this Section shall be based on percent complete and accepted by the Owner.
- C. Payment for Additional Work performed as directed on a unit price basis will be based upon units complete and accepted by the Owner.

#### **END OF SECTION**

**DIVISION 9**  
**FINISHES**

**SECTION 09905**  
**PROTECTIVE COATING**

## **SECTION 09905 - PROTECTIVE COATING**

### **PART 1 - GENERAL**

#### **1.01 DESCRIPTION**

- A. Work included: The work covered by this section of these Specifications consists of furnishing of all plant, labor, materials, tools and equipment, and the performance of all operations and incidentals necessary for the coating, handling, storing and shipping of coated structural steel, and Miscellaneous ancillary items.
- B. Related Work:
  - 1. Documents affecting work of this Section include, but are not necessarily limited to Division 1 of these Specifications, Section 05500, and Section 05520.

#### **1.02 QUALITY ASSURANCE**

- A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
- B. The Owner, through the Structural Engineer of Record (SER), reserves the right of approval of any Subcontractor pre-qualified and selected for this portion of the Work by the Contractor. Approval will be based, in part, on:
  - 1. Documented successful experience in performing work of a similar nature.
  - 2. Acceptable schedule of unit prices for measurement and payment in event of changes in the Work of this Section.
- C. Coating materials shall be handled, stored, and applied in accordance with the manufacturer's specifications, or as directed by an authorized representative of the coating manufacturer.
- D. All references to SSPC shall be interpreted as Steel Structures Painting Council.
- E. Structural steel fabrications shall be received by coating applicator free of all oil and grease.

#### **1.03 SUBMITTAL**

- A. Submit material certification data for the coating system to the SER for review no later than the time of delivery of materials to the site. Certification shall include a



statement by the coating applicator that the protective coating was installed in strict accordance with manufacturers written instructions, including all surface preparation.

#### 1.04 PRODUCT DELIVERY AND STORAGE

- A. The Contractor guarantees that material shall be stored in a safe manner within Owner-designated area provided at the site.

### PART 2 - PRODUCTS

#### 2.01 EPOXY COATING

- A. Material used for factory epoxy coating of all scheduled surfaces shall be DURA-PLATE 235 Epoxy Coating as manufactured by Sherwin-Williams or equivalent accepted by the SER.
- B. Epoxy coating field touch-up material shall be identical to factory coating specified in paragraph 2.01-A above.
- C. The topcoat color for all surfaces is to be black.

### PART 3 - EXECUTION

#### 3.01 SURFACE PREPARATION

- A. Surfaces shall be prepared in strict accordance with the protective coating system manufacturers written instructions. Surfaces are to be abrasion-blasted to a near-white surface cleanliness in accordance with SSPC-SP-10. Blast profile on steel shall be 1.5 to 2.5 mils in depth and be of a sharp, jagged nature as opposed to a "peen" pattern (from shot blasting). Surfaces must be sound, dry, clean, free of oil, grease, dirt, mildew, form release agents, curing compounds, loose and flaking paint, grit dust, and other foreign substances. Roto blasted surfaces are not acceptable.
- B. Surfaces requiring field touch-up shall be prepared as described in paragraph 3.01-A above.

#### 3.02 PROTECTIVE COATING APPLICATION

- A. The protective coating shall be installed in strict accordance with manufacturers written instructions. Coating is to be applied in two coats to achieve a minimum overall dry film thickness of 15 mils.
- B. All holidays or other imperfections in the coating shall be removed or repaired at the Contractors expense prior to final acceptance of the Work.
- C. Surfaces requiring field touch-up of any required areas shall be prepared as

described in paragraph 3.01-A above or by the following procedure:

1. Clean all surfaces to be repaired per SSPC-SP1 Solvent Clean to remove chlorides and general surface contamination.
2. Grind all welded areas to provide a smooth surface with no sharp edges.
3. Feather existing coatings back to sound material.
4. Clean all other surfaces to be repaired per SSPC-SP2 (Hand Tool Clean) or SSPC-SP3 (Power Tool Clean). Do not grind surfaces smooth; maintain adequate surface profile from original blast cleaning.
5. Stripe coat all welds and edges with the epoxy coating prior to painting to insure adequate film thickness.

#### PART 4 - COMPENSATION

##### 4.01 Measurement and Payment

- A. Include in the Contract Sum all costs for Work under this Section in the quantity shown on the Contract Drawings.
- B. No separate payment will be made for Work performed under this Section.

**END OF SECTION**