

NORWICH PUBLIC UTILITIES

16 South Golden Street
Norwich, Connecticut



Specifications For:

PAVEMENT REPLACEMENT SERVICE

Bid No. 7479

Opens
January 15, 2015

TABLE OF CONTENTS

- I. Advertisement For Bids
- II. Required Documents – Bidder’s Checklist
- III. Information For Bidders
- IV. Proposal
- V. Bid Proposal
 - a. Cost Proposal
 - b. Statement Of Bidder’s Qualifications
 - c. Proposed Subcontractors
 - d. Proposed Suppliers
 - e. Form Of Bid Bond
 - f. Non-Collusion Affidavit Of Prime Bidder
 - g. Non-Discrimination In Employment
 - h. Certificate As To Corporate Principal
- VI. General Conditions
- VII. Special Conditions/Specifications
- VIII. Technical Specifications
- IX. Norwich Public Utilities Safety Guidelines

BID NO. 7479

ADVERTISEMENT FOR BIDS
NORWICH PUBLIC UTILITIES (NPU)
IS SOLICITING BIDS FOR

PAVEMENT REPLACEMENT SERVICES

Sealed bids for the PAVEMENT REPLACEMENT SERVICES will be received at the Office of the Purchasing Agent at City Hall, 100 Broadway, Norwich, Connecticut 06360 until **2:00 PM on Thursday January 15, 2015**, prevailing time, at which time they will be publicly opened and read aloud.

The contractor shall be responsible to furnish all necessary labor, supervision, equipment, tools, and everything else needed to replace pavement related to installation/repair of utility services. All work shall be performed in accordance with the City's specifications, the City of Norwich Department of Public Utilities (NPU) Regulations, and all applicable Federal, State, and Local codes and Standards as amended

Bid surety in the form of cash, a certified check or bid bond in the amount of five percent (5%) of this bid is required and must accompany the bid response.

On or after December 11, 2014, Specifications may be viewed and downloaded from the following websites:

- City of Norwich www.norwichct.org
- State of Connecticut www.das.state.ct.us
- Public Purchase www.publicpurchase.com

Questions regarding this bid should be directed to Ms. Jackie Roy 860-823-4503 Norwich Public Utilities, or at jackieroy@npumail.com.

Norwich Public Utilities reserves the right to reject any or all bids, in whole or in part, to award any item, group of items, or total bid, and to waive any informality in the bids received if it deems it to be in the best interest of the Norwich Public Utilities to do so.

No Bidder may withdraw their bid within 90 days after the actual date of bid opening thereof. Should there be reason why the contract cannot be awarded within the specific period, this time may be extended by mutual agreement between the City and the designated, qualified low Bidder.

All final awards of the bid subject to comply with Ordinance No. 1235 adopted December 3, 1991.

All bids must be submitted in a sealed envelope bearing the bidder's name and bid number.

Responding bidders must ensure that employees and applicants for employment are not discriminated against because of their race, color, religion, age, handicap, familial status, sex, or national origin.

William Hathaway
PURCHASING AGENT

NOTE: BIDDERS ARE HEREBY ADVISED THAT ONLY BID SURETIES FOR THE THREE LOWEST BIDDERS WILL BE HELD. ALL OTHERS WILL BE RELEASED WITHIN SEVEN DAYS

REQUIRED DOCUMENTS – BIDDER’S CHECKLIST
PAVEMENT REPLACEMENT SERVICES

- | | | |
|----|--|-------|
| 1 | Proposal | _____ |
| 2 | Cost Proposal | _____ |
| 3 | Statement of Bidder’s Qualifications | _____ |
| 4 | Proposed Subcontractors | _____ |
| 5 | Proposed Suppliers | _____ |
| 6 | Addendum Acknowledgement (as required) | _____ |
| 7 | Bidder’s Bond | _____ |
| 8 | Non-Collusion Affidavit | _____ |
| 9 | Non-discrimination in Employment | _____ |
| 10 | Certificate as to Corporate Principal | _____ |

TABLE OF CONTENTS – INFORMATION FOR BIDDERS

1. Receipt And Opening Of Bids
2. Preparation Of Bid
3. Prices
4. Information Supplied To Bidders
5. Addenda And Interpretations
6. Bid Modification
7. Corrections
8. Withdrawal Of Bids
9. Qualifications of the Bidder
10. Obligations Of The Bidder
11. Bid Security
12. Power Of Attorney
13. Method Of Award-Lowest Qualified Bidder
14. Contract Security
15. Execution of the Agreement
16. Liquidated Damages for Failure to Enter Into Contract
17. Notice to Proceed
18. Uncertainty of Quantities
19. Conditions Of Work
20. Payment Schedule
21. Employment of Labor/Prevailing Wages
22. Laws And Regulations
23. Taxes
24. Non-Resident Contractors

INFORMATION TO BIDDERS

1. RECEIPT AND OPENING OF BIDS

Sealed bids for the *Pavement Replacement Services* will be received at the office of the Purchasing Agent, City Hall, Norwich, Connecticut, at the time specified in the advertisement for bids, then opened and read aloud. The envelopes containing the bids must be sealed and designated as "*Pavement Replacement Services*".

The Owner may consider informal any bid not prepared and submitted in accordance with the provisions hereof and may waive any informalities in or reject any and all bids. Conditional or qualified bids will not be accepted. Any bid received after the time and date specified shall not be considered. Should there be reasons why the contract cannot be awarded within the specified period the time may be extended by mutual agreement between the Owner and the bidder.

This bid is for the 2015 calendar year with two one-year extensions negotiated at the option of the Owner.

2. PREPARATION OF BID

Each Bid must be submitted on the prescribed forms included with these documents. All blank spaces for bid prices must be filled in, in ink or typewritten, with the information requested or with the notation 'N/A' for not applicable. All bids must be prepared in conformity with and shall be based on and submitted subject to all requirements of the Specifications and Drawings together with all Addenda thereto.

Bids which are incomplete, not properly endorsed or signed, or otherwise contrary to the instructions in this specification, shall be rejected. Conditional bids will not be accepted

Minus bidding on any item is prohibited. Bids should be made on each separate item of work shown in the bid (Proposal) with reasonable relation to the probable cost of doing the work included in such item and the right is reserved to reject wholly any bid in case any item or items thereof are obviously unbalanced or appear to the Owner to be so unbalanced as to affect or to be liable to affect adversely any interests of the Owner. The attention of the bidder is called to the fact that unbalancing of bids may adversely affect the Contractor if certain portions of the work are increased or decreased as provided in the Contract Documents.

3. PRICES

Bidders shall state the proposed price for the work by which the bids will be compared. This price is to cover all expenses incidental to the completion of the work in full conformity with the Contract and the Specifications.

No bid will be accepted which does not contain a unit price for every item contained in the bid form.

4. INFORMATION SUPPLIED TO BIDDERS

The owner shall provide to bidders prior to bidding, all information that is pertinent to, and delineates and describes, the work to be done. The Contract Documents contain the provisions required for completion of the work. Information obtained from any officer, agent, or employee of the owner or any other person shall not affect the risks or obligations assumed by the Contractor or relieve him from fulfilling any of the conditions of the Contract.

5. ADDENDA AND INTERPRETATIONS

No interpretation of the meaning of the Specifications, or other pre-bid documents will be made to any bidder orally. Every request for such interpretation shall be in writing, addressed to: Ms. Jackie Roy, Norwich Public Utilities, 16 South Golden Street, Norwich, CT 06360, jackieroy@npumail.com. In order to be given consideration, such request must be made at least 5 days prior to the date fixed for the opening of bids. Any and all interpretations and any supplemental instructions will be in the form of written Addenda to the Specifications, which, if issued, will be made available to all prospective bidders, not later than three (3) days prior to the date fixed for the opening of bids and found on one the following websites:

1. www.norwichct.org
2. www.das.state.ct.us
3. www.publicpurchase.com

Addenda so issued shall become a part of the Contract Documents

6. BID MODIFICATION

Any bidder may modify his bid by electronic communication at any time prior to the scheduled closing time for receipt of bids, provided such communication is received by the Owner prior to the closing time, and provided further. The electronic communication should not reveal the bid price but should provide the addition or subtraction or other modifications so that the final prices or items will not be known by the Owner until the sealed bid is opened.

7. CORRECTIONS

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

8. WITHDRAWAL OF BIDS

Bids may be withdrawn personally or on written or electronic request dispatched by the bidder in time for delivery in the normal course of business prior to the time fixed for the opening. Negligence on the part of the bidder in preparing his bid confers no right of withdrawal or modification of his bid after such bid has been opened.

9. QUALIFICATIONS OF THE BIDDER

The Owner may make such investigations as he deems necessary to determine the ability of the bidder to perform the work, and the bidder shall furnish to the Owner all such information and data for this purpose as the Owner may request. The Owner reserves the right to reject any bid if the evidence submitted by, or investigation of, such bidder fails to satisfy the Owner that such bidder is properly qualified to carry out the obligations of the Contract and to complete the work contemplated therein.

10. OBLIGATIONS OF THE BIDDER

Bidders must satisfy themselves by personal examination of the Specifications including Addenda, and by additional means as they may prefer, as to the actual conditions, requirements, and limits of the proposed work, and as to the accuracy of the information and statements herein contained, and the submission of any bid will be accepted by the Owner as satisfactory proof that the bidder has satisfied himself in these respects. The bidder shall not at any time after the submission of a bid dispute or complain of such statements or information, nor, assert that there was any misunderstanding in regard to the nature, or amount of work to be done. The failure or omission of any bidder to examine any form, instrument or document shall in no way relieve the bidder of his obligation to furnish all materials except those materials furnished by the Owner and labor necessary to carry out the provisions of the Contract Documents and to complete the contemplated work for the considerations set forth in his bid, if his bid is accepted.

11. BID SECURITY

Each bid must be accompanied by a certified check of the bidder, or a bid bond prepared on the form of bid bond attached hereto, duly executed by the bidder as principal and having as surety thereon a surety company approved by the Owner, in the amount of five percent (5%) of the bid. Such checks or bid bonds will be returned to all but the three lowest bidders within five days after the opening of bids, and the remaining checks or 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 90 days after the date of the opening of the bids, upon demand of the bidder at any time thereafter, so long as he has not been notified of the acceptance of his bid.

12. POWER OF ATTORNEY

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

13. METHOD OF AWARD-LOWEST QUALIFIED BIDDER

The term "lowest responsible bidder" shall mean the bidder whose bid is the lowest of those bidders possessing the skill, ability and integrity and experience necessary for the faithful performance of the work. The Owner reserves the right to award the work based upon information contained in the Statement of Bidders Qualifications submitted with their bid. Cost shall not be the sole determining factor in the selection process, however, cost will be a

significant factor in the selection and will be the determining factor if two or more bids are equal or near equal in desirability.

If, at the time this Contract is to be awarded, the lowest bid submitted by a qualified bidder does not exceed the amount of funds then estimated by the owner as available to finance the Contract; the Contract will be awarded to that bidder. If the bid exceeds such amount, the owner expressly reserves the right to increase or decrease any class, item, or part of the work. This reservation includes the omission of any such item, items, class, or part of the work as may be decided by the owner at prices submitted by the bidder to bring the Contract within available funds; or the owner may reject all bids.

14. CONTRACT SECURITY

The Contractor shall furnish a Performance Bond and Payment Bond in amounts equal to at least one hundred percent (100%) of the contract 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 a duly authorized surety company satisfactory to the Owner and the cost of the same shall be paid by the Contractor 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.

15. EXECUTION OF THE AGREEMENT

A Contract in the form set forth hereinafter will be required to be executed by the successful bidder and the owner. The attention of all bidders, therefore, is called to the form of the Agreement and the provisions thereof. The party to whom the Contract is awarded will be required to obtain the performance bond and payment bond and insurance certificates within ten (10) calendar days from the date when the Notice of Award is delivered to the bidder. The Notice of Award shall be accompanied by the necessary Agreement and bond forms.

16. LIQUIDATED DAMAGES FOR FAILURE TO ENTER INTO CONTRACT

The successful bidder, upon his failure or refusal to execute and deliver the Contract and bonds required within 10 days after he has received notice of the acceptance of his bid, shall forfeit to the owner, as liquidated damages for such failure or refusal the surety deposited with his bid.

17. NOTICE TO PROCEED

The Notice to Proceed shall be issued within ten (10) days of the execution of the Agreement by the owner. Should there be reasons why the Notice to Proceed cannot be issued within such period; the time may be extended by mutual agreement between the owner and Contractor.

18. UNCERTAINTY OF QUANTITIES

Any quantities listed in the bid (proposal) are approximate and are given for use in comparing bids and to indicate approximately the total amount of the Contract. Notwithstanding any projections contained in this request for proposals, the Owner makes **no commitment** on the amount of work. The Owner does not expressly or by implication represent that the actual amounts of work will even approximately correspond therewith, but does call particular attention to the uncertainty of the quantities of that work which cannot be predicted in advance. The quantity under certain items may be materially greater or less than that given in the bid.

Only such quantities of the respective items of work actually performed and accepted will be paid for. An increase or decrease in the quantity for any item shall not be regarded as grounds for an increase or decrease in the bid prices.

19. CONDITIONS OF WORK

Insofar as possible, the Contractor, in carrying out his work, must employ such methods or means as will not cause any undue interruption of or interference with traffic, with the use of existing facilities and utilities, with the use of municipally or State or privately owned lands, or with the work being performed by others.

20. PAYMENT SCHEDULE

Payment for the work will be made when the work outlined in the specifications is performed in accordance with the terms stated herein. The Contractor shall submit a report of work completed weekly; Requests for Payment for work done may be submitted either weekly or monthly. Invoices shall be prepared in prescribed form by the Contractor and shall be submitted to the Owner for checking and certifications. All requests for payment must be accompanied by the completed data collection forms provided by the Owner.

All contract payments shall be understood to be subject to appropriation by Norwich Public Utilities on an annual budget basis.

21. EMPLOYMENT OF LABOR/PREVAILING WAGES

The wages paid to mechanics, laborers or workmen employed upon the work herein contracted to be done shall be at a rate equal to the rate of wages prevailing for the same work in the same trade or occupation in the **NORWICH** area as determined by the labor Commissioner of the State of Connecticut. See Section 31.53 of the General Statutes of the State of Connecticut, Revision of 195S, as amended.

Public Act 79-325 passed by the 1979 Legislature covers exemptions from Section 31.53 of the General Statutes. Under the new exemptions, effective October 1985, the regulations that the prevailing wage must be paid for work performed by Contractors and subcontractors in connection with work on public facilities will not apply:

To public work alterations, repair, refinishing projects with total cost of less than \$100,000.

To public works new construction with a total cost of less than \$400,000.

All Bidders are informed that each new assignment is being considered a discrete project; and applicability of prevailing wages will be determined project by project. Bidders are advised that the onus for determining the parameters for each project, and conclusions regarding the requirements of Federal, State, and local law including prevailing wage laws for each discrete project rests solely with the individual bidders. Bidders may not rely upon the owner for guidance in making such determinations.

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

The Contractor shall provide certified payroll sheets to the Owner which shall include all employees involved with the project for each payroll period during the course of the project.

22. LAWS AND REGULATIONS

The Bidder's attention is directed to the fact that all applicable federal and state laws and municipal ordinances for the work and the rules and regulations of all authorities having jurisdiction over the work shall apply to the Contract throughout, and they will be deemed to be included in the Contract the same as though herein written out in full.

23. TAXES

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

24. NON-RESIDENT CONTRACTORS

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.

PROPOSAL
NORWICH PUBLIC UTILITIES
NORWICH, CONNECTICUT

PAVEMENT REPLACEMENT SERVICES

Date: _____

City of Norwich
Department of Public Utilities
City Hall
Norwich, Connecticut 06360

The undersigned _____ doing
business in _____
County of _____ State of _____, has carefully
read the Information to Bidders, General Conditions, Technical Specifications, Appendices,
Addenda, and examined any drawings therein referred to and he proposes and agrees that he will
contract with the City of Norwich, CT in the form of Contract deposited in the Office of the
Purchasing Agent, City Hall, Norwich, Connecticut to provide all necessary machinery, tools,
apparatus, equipment, and other means of construction and do all the work and furnish all the
materials specified in the contract, called for in the specifications or shown on the drawings in
the manner and time prescribed and according to the requirements of the engineer, as herein set
forth and that he will take in full payment, therefore, the following sums to wit:

This Bid includes Addenda numbered (to be filled in by Bidder if Addenda are issued).

- 1. The Contractors has read and familiarized themselves with the Norwich Public Utilities Safety Guidelines included in these Specifications. _____ (Check on line).**

BID PROPOSAL
NORWICH PUBLIC UTILITIES
NORWICH, CONNECTICUT

PAVEMENT REPLACEMENT SERVICES

TO: City of Norwich
Department of Public Utilities
City Hall
Norwich, Connecticut 06360

FROM: _____

The undersigned, having familiarized (himself, itself, themselves) with the Contract Documents for the ***Pavement Replacement Services*** and hereby proposes to furnish all supervision, technical personnel, labor, materials, equipment, tools, appurtenances, services, materials not supplied by the Owner, and anything else necessary, including utility and transportation services required to perform and complete this Contract, all in accordance with the Contract Documents at and for the unit prices for work in place for the following work items.

The quantity of the units shown below is given for the purpose of determining the Award. The Owner reserves the right to increase or decrease these quantities. Payment to the Contractor will be based on completed measured quantities of these work items.

The contractor shall be responsible to furnish all necessary labor, supervision, equipment, tools, and everything else needed to replace pavement related to installation/repair of utility services. All work shall be performed in accordance with the City's specifications, the City of Norwich Department of Public Utilities (NPU) Regulations, and all applicable Federal, State, and Local codes and Standards as amended.

For work in a State highway, the Contractor shall obtain all insurances and bonds to satisfy any other CT DOT requirements and incur the cost there of. The item shall not be measured for payment; the cost shall be considered part of the applicable contract unit prices.

A. Scope of work for unit price bid items:

- Earth excavation as needed
- Transportation and installation of materials
- Placing gravel base, preparing subgrade (as needed)
- Installing temporary paving
- Installing permanent trench pavement
- Installing bituminous concrete lip curving
- Milling as needed
- Installing bituminous concrete overlay
- Resetting to grade existing or newly constructed grates, frames, covers, valve boxes, access covers and all other items which must be fixed to finished grade
- Maintenance and protection of traffic
- All appropriate safety equipment

B. Items provided by NPU:

- Flaggers/Police protection; Contractor shall schedule all flaggers and police protection

Note that the Crew Cost item will be utilized only for work not covered in the list of line items. The Crew Cost item is the only item in which construction material cost will be paid for by the Owner. Crew Cost will be measured for payment by the number of hours of work performed by a work crew. Crew time hours will be measured from the time the entire crew is mobilized at the site and work has started until the time site work is substantially complete and demobilization has started.

All work shall be performed in accordance with the requirements defined in the Technical Specifications section of this bid documentation.

Below are the measurements associated with the applicable items of work.

Units of Measure Abbreviations

S.Y. – per Square Yard

L.F. – per Linear Foot

L.S. – Lump Sum

HRS. – per Hour

C.Y. – per Cubic Yard

COST PROPOSAL

Item	Description	Unit (Est/yr.)	Unit Price	Total Price
1	Crew cost (4 hour min) to perform temporary pavement repair, permanent pavement repair, processed gravel base, and bituminous concrete curbing for work not covered in line items below	8 HRS		
2	Crew cost (4 hour min) to perform milling not covered in line items below	8 HRS		
3	Processed Gravel Base (Less than 25 CY or 100 LF of trench) Placed and compacted in place	10 CY		
4	Processed Gravel Base (25-150 CY) Placed and compacted in place	75 CY		
5	Processed Gravel Base (Greater than 150 CY) Placed and compacted in place	150 CY		
6	Temporary Pavement (Less than 50 SY or 100 LF of trench)	25 SY		
7	Temporary Pavement (50-200 SY)	50 SY		
8	Temporary Pavement (Greater than 200 SY)	200 SY		
9	Permanent Pavement Local Road (Less than 50 SY or 100 LF of trench)	500 SY		
10	Permanent Pavement Local Road (50-200 SY)	500 SY		
11	Permanent Pavement Local Road (Greater than 200 SY)	850 SY		
12	Permanent Pavement State Road (Less than 50 SY or 100 LF of trench)	200 SY		
13	Permanent Pavement State Road (50-200 SY)	400 SY		
14	Permanent Pavement State Road (Greater than 200 SY)	850 SY		

Item	Description	Unit (Est/yr.)	Unit Price	Total Price
15	Bituminous Concrete Lip Curbing (Less than 100 LF)	200 LF		
16	Bituminous Concrete Lip Curbing (100-500 LF)	250LF		
17	Bituminous Concrete Lip Curbing (Greater than 500 LF)	500 LF		
18	Milling 1 ½" (Less than 50 SY)	200 SY		
19	Milling 1 ½" (50-200)	350 SY		
20	Milling 1 ½" (Greater than 200 SY)	500 SY		
21	Milling 2" (Less than 50 SY)	300 SY		
22	Milling 2" (50-200)	400 SY		
23	Milling 2" (Greater than 200 SY)	500 SY		
24	Overlay 1 ½" (Less than 50 SY)	200 SY		
25	Overlay 1 ½" (50-200 SY)	350 SY		
26	Overlay 1 ½" (Greater than 200 SY)	500 SY		
27	Overlay 2" (Less than 50 SY)	300 SY		
28	Overlay 2" (50-200)	400 SY		
29	Overlay 2" (Greater than 200 SY)	500 SY		
30	Keyhole patching minimum 18"X18"	20 EA		
31	Keyhole patching minimum 24"X24"	40 EA		
32	Loam and Seed	25 SY		
33	Concrete Sidewalk Repair minimum patch 12"X12"	20 EA		
34	Concrete Sidewalk Repair minimum patch 4"X4"	20 EA		

The undersigned has checked carefully all the above figures and understands that the Owner will not be responsible for any errors or omissions on the part of the undersigned in making up this bid.

Bidder understands that the Owner reserves the right to reject any or all bids and to waive any informality in the bidding. The bidder agrees that this bid shall be good and may not be withdrawn for a period of 60 calendar days after the scheduled closing time for receiving bids.

Bidder understands that the Owner reserves the right to perform any portions of the above unit price work on prospective projects without invalidating this bid.

Respectfully submitted:

By _____
(Signature)

(Printed Name)

(Title)

(Business Address)

(SEAL - if bid is by a corporation)

(Telephone Number)

STATEMENT OF BIDDER'S QUALIFICATIONS

All questions must be answered and the data given must be clear and comprehensive. This statement must be notarized. If necessary, questions may be answered on separate attached sheets. The Bidder may submit any additional information he desires.

1. Name of Bidder:
2. Permanent main office address:
3. When organized:
4. If a corporation, where incorporated:
5. How many years have you been engaged in the contracting business under your present firm or trade name?
6. Contracts on hand: (Schedule these, showing amount of each contract and the appropriate dates of completion)
7. General character of work performed by your company:
8. Have you ever failed to complete any work awarded to you? If so, where and why?
9. Have you ever defaulted on a contract? If so, where and why?
10. List projects similar to this that your organization completed within the last 5 years? The contractor shall attach a summary of such work that identifies:
 - Name of Owner
 - Date of Work
 - Contract Amount
 - Brief Description of Work
11. List of major equipment available for this contract

PROPOSED SUBCONTRACTORS

THE BIDDER SHALL STATE THE NAMES OF ALL THE SUBCONTRACTORS THAT HE PROPOSES TO USE. ATTACH ADDITIONAL SHEETS IF NEEDED.

If none, write "None" _____
.....

*Description of Work _____

Proposed Subcontractor, Name _____

Address _____
.....

*Description of Work _____

Proposed Subcontractor, Name _____

Address _____
.....

*Description of Work _____

Proposed Subcontractor, Name _____

Address _____
.....

*Insert description of work and subcontractors' names as may be required.

This is to certify that all names of the above-mentioned subcontractors are submitted with full knowledge and consent of the respective parties.

The Bidder warrants that none of the proposed subcontractors have any conflict of interest as respects this contract.

Bidder _____
(Fill in Name)

By _____
(Signature and Title)

PROPOSED SUPPLIERS

THE BIDDER SHALL STATE THE NAMES OF PROPOSED MATERIAL SUPPLIERS FOR THE PROJECT. ATTACH ADDITIONAL SHEETS IF NEEDED.

If none, write "None" _____

*Description of Material _____

Proposed Supplier, Name _____

Address _____

*Description of Material _____

Proposed Supplier, Name _____

Address _____

*Description of Material _____

Proposed Supplier, Name _____

Address _____

*Insert description of work and suppliers names as may be required

This is to certify that all names of the above-mentioned suppliers are submitted with full knowledge and consent of the respective parties.

The Bidder warrants that none of the proposed suppliers have any conflict of interest as respects this contract.

Bidder _____
(Fill in Name)

By _____
(Signature and Title)

BID BOND

KNOW ALL MEN BY THESE PRESENTS: That we, the undersigned, _____ of _____ (hereinafter called the Principal) as Principal, and _____ a corporation organized and existing under the laws of the State of _____ and duly authorized to transact a surety business in the State of Connecticut (hereinafter called the Surety), are held and firmly bound unto the City of Norwich as Owner, in the penal sum of _____ in lawful money of the United States of America, for the payment of which sum, well and truly made to the Owner, we bind ourselves, our heirs, successors, and assigns, jointly and severally, firmly by these presents has herewith submitted a bid for the for the contract for the _____ project, bids for which are scheduled to be opened on _____

THE CONDITION OF THIS OBLIGATION is such, that whereas the Principal has herewith submitted a bid for the contract for the above referenced project

NOW, THEREFORE, if the following conditions are satisfied, this obligation shall become void:

- a) the Principal shall not withdraw its bid within _____ days after the bid opening of the same without the consent of the Owner, and
- b) the Owner shall award said project to the Principal in writing, and
- c) the Principal shall, as required by the Owner pursuant to the bid specifications for the project, execute a contract in writing for the project within the time specified by the Owner, after being notified by the Owner in writing of the award, including all submissions relating to that contract execution as may be required by the bid specifications, to be submitted to the Owner prior to contract execution, and
- d) the Principal shall deliver such surety bond as shall be acceptable to the Owner for the performance of the work according to said written agreement (contract), and shall in all other respects perform the agreement created by the acceptance of said bid.

Otherwise, the Principal and Surety hereto agree to pay unto the Owner the difference between the amount of the bid of said Principal, submitted herewith, and the amount for which the Owner may contract with another party to perform the work covered by the said bid of the Principal.

The Surety executing this instrument hereby agrees that its obligation shall not be impaired by any extension(s) of the time for contract execution that the Principal and Owner may agree to, notice of which extension(s) to the Surety being hereby waived; provided that such waiver of notice shall apply only with respect to extensions aggregating not more than _____ calendar days in addition to the original _____ days allowed for expiration of this bid bond.

IN TESTIMONY WHEREOF, the said Principal and Surety have caused this bond to be signed by their duly-authorized representatives and have caused their names and corporate seals to be affixed on this form on the respective dates of their signatures.

Surety

Print Surety Name

Principal

Print Name

Agent's signature and date. **Enclose a valid date**
Power of Attorney

Signature of Authorized Representative and

NON-COLLUSION AFFIDAVIT OF PRIME BIDDER

State of _____)
) ss.
County of _____)

_____, being first duly sworn, deposes and says that:

- (1) He is (owner, partner, officer, representative or agent) of _____, the Bidder that has submitted the attached bid;
- (2) He is fully informed respecting the preparation and contents of the attached Bid and of all pertinent circumstances respecting such Bid;
- (3) Such Bid is genuine and is not a collusive or sham Bid;
- (4) Neither the said Bidder nor any of its officers, partners, owners, agents, representatives, employees or parties in interest, including this affiant, has in any way colluded, conspired, connived or agreed, directly or indirectly with any other Bidder, firm or person to submit a collusive or sham Bid in connection with the Contract for which the attached Bid has been submitted or to refrain from Bidding in connection with such Contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other Bidder, firm or person to fix the price or prices in the attached Bid or of any other Bidder, or to fix any overhead, profit or cost element of the Bid price or the Bid price of any other Bidder or to secure through any collusion, conspiracy, connivance or unlawful agreement any advantage against the Owner or any person interested in the proposed Contract; and
- (5) The price or prices quoted in the attached Bid are fair and proper and are not tainted by any collusion, conspiracy, connivance or unlawful agreement on the part of the Bidder or any of its agents, representatives, owners, employees, or parties in interest, including this affiant.

(Signed) _____

(Title)

Subscribed and sworn to before me
this _____ day of _____ 20 ____.

(Title)

My Commission expires _____, 20 ____.

CERTIFICATE AS TO CORPORATE PRINCIPAL

I, _____, certify that I am the Secretary of the corporation named as Principal in the within bond; that _____, who signed the said bond on behalf of the Principal was then _____ of said corporation; that I know his signature, and his signature thereto is genuine; and that said bond was his duly signed, sealed, and attested to for and in behalf of said corporation by authority of this governing body.

(Corporate Seal)

Title: _____

TABLE OF CONTENTS – GENERAL CONDITIONS

1. Contract and Contract Documents
2. Representations of the Contractor
3. Contractor’s Obligations
4. Superintendence by the Contractor
5. Qualifications of Contractor
6. Competent Help to be Employed
7. Use of Premises and Removal of Debris
8. Protection of Work and Property
9. General Warranty
10. General Guarantee
11. Sub-contractors
12. Assignments
13. Payment to Sub-contractors
14. Safety and Health Regulations
15. The Owner’s Authority
16. Right of the Owner to Terminate the Contract
17. Termination for Convenience
18. Inspection
19. Owner’s Right to do Work
20. Separate Contracts
21. Contractor’s Insurance
22. Indemnity of Owner by Contractor
23. Spirituous Liquors and Drugs
24. Prohibiting Employee Discrimination by Contractor
25. Claims for Additional Compensation
26. The Use of “He”, “His” or “Him”

GENERAL CONDITIONS

1. CONTRACT AND CONTRACT DOCUMENTS

The specifications, and addenda enumerated in the General Conditions, Special Conditions the Advertisement for Bid, the Information for Bidders, and the Bid Proposal as accepted by the Owner, shall be binding upon the parties to this Agreement as if fully set forth therein. Whenever the term Contract Documents is used it shall mean and include the conditions, specifications and addenda. In case of conflict or inconsistency between the provisions of the signed portions of the Contract Documents and those of the specifications, the provisions of the signed portions shall govern.

2. REPRESENTATIONS OF THE CONTRACTOR

The Contractor represents and warrants:

- a. That he is financially solvent and that he is experienced and competent to perform the type of work required under this contract and that he is able to furnish the plant, materials, supplies, or equipment that may be necessary to perform the work as specified.
- b. That he is familiar with all Federal, State and municipal laws, ordinances, orders, and regulations which may in any way effect the project work, or the employment of persons thereon, including but not limited to any special acts relating to the work or to the project of which it is a part.
- c. That he has carefully examined the specifications and addenda, if any, and that from his own investigations, he has satisfied himself as to the nature of the work, the character of equipment and other facilities needed for the performance of the work, the general and local conditions, and all other items that may affect the work.

3. CONTRACTOR'S OBLIGATIONS

The Contractor shall perform all work in a good workmanlike manner, and in accordance with the specifications and any supplements thereto, and according to any directions or orders given by the Owner unless otherwise stipulated. He shall furnish all supplies, equipment, tools and anything else necessary or proper to perform and complete the work required by this contract, except for those items furnished by the owner. He alone shall be responsible for the safety, efficiency, and adequacy of his plant, equipment, and methods and for any damage which may result from their failure or their improper construction maintenance, or operation. The Contractor shall observe, comply with, and be subject to all terms, conditions, requirements, and limitations of the contract and shall perform the work to the satisfaction of the Owner.

The Contractor shall be solely responsible for all the work and shall provide all precautionary measures necessary for preventing injury to persons or damage to property. All injury or damage of whatever nature resulting from the work or resulting to persons, property, or the work during its progress, from whatever cause, shall be the responsibility of the Contractor.

The Contractor shall bear all losses resulting to him, including but not limited to losses sustained on account of the character, quality, or quantity of any part of the work, or all parts of the work, or because the nature of the conditions in or on the project site are different from what was estimated or indicted, or on account of the weather, elements, or other causes.

4. SUPERINTENDENCE BY THE CONTRACTOR

The Contractor shall give the work the constant attention necessary to facilitate the progress thereof and shall cooperate with the Owner in every possible way.

5. QUALIFICATIONS OF CONTRACTOR

The Contractor shall have a minimum of five (5) years' experience in replacing existing pavement in roadways including milling, installing concrete lip curbing, installing permanent and temporary pavement and overlay on surfaces related to this work.

6. COMPETENT HELP TO BE EMPLOYED

The Contractor shall employ experienced workers competent in the work in which they are to be engaged. All work shall be accomplished by able, skilled and competent personnel. If any person employed on the work by the Contractor shall appear to be incompetent or unreliable in any way, he shall be discharged immediately upon the request of the Owner and shall not again be employed on the work.

7. USE OF PREMISES AND REMOVAL OF DEBRIS

The Contractor shall arrange his work in such a manner as to prevent unnecessary delay to the work as a whole.

The Contractor shall undertake at his own expense:

- a. To take every precaution against injuries to persons or damage to property.
- b. To store his apparatus, materials, equipment, and supplies in such orderly fashion at the site of the work as will not unduly interfere with the progress of his work or any others.
- c. To clean frequently all refuse, scrap, and debris caused by his operations, and to dispose of same as called out in the Special Conditions, so that the work site is maintained in a neat, workmanlike appearance.

- d. Before final payment, to remove all debris of any nature resulting from his operations and to dispose of same, so that the site is left in a neat, orderly, and workmanlike condition.

8. PROTECTION OF WORK AND PROPERTY

- a. The Contractor shall at all times safely guard the Owner's property from injury or loss in connection with this contract. He shall at all times safely guard and protect his own work, and that of adjacent property, from damage. The Contractor shall replace or make good any such damage, loss, or injury at no additional expense to the Owner.
- b. In case of an emergency which threatens loss or injury of property, and/or safety of life the Contractor will be allowed to act, without previous instructions from the Owner, in a diligent manner. He shall notify the Owner immediately thereafter. Any claim for compensation by the Contractor due to such extra work shall be promptly submitted to the Owner for approval.
- c. Where the Contractor has not taken action but has notified the Owner of an emergency threatening injury to persons or damage to the work or to any adjoining property, he shall act as instructed or authorized by the Owner.

9. GENERAL WARRANTY

Neither payment for work performed nor any provision in the contract documents shall constitute an acceptance of work not done in accordance with the contract documents or relieve the Contractor of liability in respect to any express warranties or responsibility for faulty workmanship or materials. The Contractor shall remedy any defects in the work and pay for any damage resulting therefrom, at no additional cost to the Owner. The Owner will give notice of observed defects with reasonable promptness.

10. GENERAL GUARANTEE

The Contractor shall guarantee his work for a period of one (1) year after the date of the Owner's Representative's final inspection and acceptance as evidenced by final payment. he shall during that period repair promptly, at his own cost and expense all breaks, failures or defects which develop in his work as a result of faulty material or workmanship. The performance bond shall remain in effect through the guarantee period.

11. SUBCONTRACTORS

If subcontractors are employed, they shall be paid for at the established prices in the Proposal without further markups. All subcontractors must be capable of performing the work to the satisfaction of the Owner and shall be held to the same qualifications and standards as the Contractor.

The Contractor shall not award work to any subcontractor other than those listed in his bid, without the prior written approval of the Owner, which approval will not be given until the Contractor submits a written statement concerning the proposed award to the subcontractor, which statement shall contain such information as the Owner may require.

The Contractor shall cause appropriate provisions to be inserted in all subcontracts relative to the work, to bind the subcontractors to the contract documents insofar as applicable to the subcontract work and to give the Contractor under any provisions of the contract documents.

Nothing contained in this contract shall create any contractual relationship between the Owner and any subcontractor.

12. ASSIGNMENTS

The Contractor shall not assign the whole or any part of this contract or any monies due or to become due hereunder without the written consent of the Owner. In case the Contractor assigns all or part of any monies due or to become due under this contract, the instrument of assignment shall contain a clause substantially to the effect that it is agreed that the right of the assignee in and to any monies due or to become due to the Contractor shall be subject to prior claims of all persons, firms, or corporations for services rendered or materials supplied for the performance of the work called for in this contract.

13. PAYMENT TO SUB-CONTRACTOR

The Owner assumes no obligation to pay to or to see to the payment of any sum to any sub-contractor.

14. SAFETY AND HEALTH REGULATIONS

The Contractor shall take necessary precautions for the safety of his employees, his subcontractor's employees, the Owner's employees and representatives, and the public during the duration of the Contract.

If the Contractor, in the Owner's opinion, fails to provide a safe condition at the work area, then the Owner may take control of the site and provide needed safety measures at the Contractor's expense. The fact that the Owner may retain control of the premises shall not relieve the Contractor's obligations hereunder.

In addition to the above, when and as necessary, or when required by the Owner, the Contractor shall post sign and employ watchmen or flagmen for the direction of traffic at the site.

The Contractor shall perform all work in accordance with the Norwich Public Utilities' Safety guidelines included in this document.

These contract documents are to be governed, at all times, by the applicable provisions of the Federal law(s) including but not limited to the following:

Norwich Public Utilities
Pavement Replacement

1. Williams-Steiger Occupational Safety and Health Act, 1970, Public Law 92-596;
2. Part 1910 of the Occupational Safety and Health Standards, Chapter XVII of Title 29, Code of Federal Regulations.
3. This project is subject to all of the Safety and Health Regulations (CFR 29, Part 1926 and all subsequent amendments) as promulgated by the U.S. Department of Labor on June 24, 1974.
4. Any and all safety and health standards as noted in the Technical Specification.

In the event of any inconsistencies between the above laws and regulations and the provisions of these contract documents, the laws and regulations shall prevail.

15. THE OWNER'S AUTHORITY

The Owner shall give all orders and directions considered under this contract and specifications relative to the execution of the work. The Owner shall determine the amount, quality, acceptability, and fitness of the equipment which are to be used under this contract. The Contractor shall employ no plant, equipment, materials, methods or men to which the Owner objects. The Owner's decisions shall be final and conclusive, except as herein otherwise expressly provided. In case any question shall arise between the parties hereto relative to said contract or specifications, the determination or decision of the Owner shall be a condition precedent to the right of the Contractor to receive any money or payment for work under this contract affected by such questions.

16. RIGHT OF THE OWNER TO TERMINATE THE CONTRACT

The contractor agrees that if at any time during the term of this contract the Owner determines that the contractor is negligently, incompetently, or unsafely performing the work or any part thereof, or is unable to the satisfaction of the Owner to perform the same, or is not complying with the direction of the Owner or its agents or is otherwise failing to perform this contract in accordance with all of its terms and provisions, the Owner may, at its election at any time thereafter, terminate this contract. Upon the date so specified, this contract shall terminate; but upon such termination shall not prejudice or waive any rights of action which the Owner may have against the contractor because of any default or failure in performance of this contract.

17. TERMINATION FOR CONVENIENCE

The Owner hereby reserves the right to terminate the performance of this contract for any reason the Owner deems appropriate. The Owner will pay all actual costs to date of termination; however, the Contractor shall not be entitled to any profit on unearned work.

18. INSPECTION

The Owner shall have the right, at its own expense, to inspect all written licenses, permits, or approvals issued to the Contractor which are applicable to this contract, inspect all work covered by this contract and inspect or audit any of the Contractor's or Subcontractor's records and accounts pertaining to this contract.

19. OWNER'S RIGHT TO DO WORK

If the Contractor should neglect to prosecute the work properly or fail to perform any provision of this contract, the Owner, after five (5) days written notice to the Contractor may, without prejudice to any other remedy he may have, make good such deficiencies and may deduct the cost thereof from the payment, then or thereafter due the Contractor.

20. SEPARATE CONTRACTS

The Owner reserves the right to let other contracts in connection with the work associated with this contract. The primary, or successful bidder, shall understand that in the event of an emergency, or if so many projects are occurring simultaneously that their workers and equipment cannot do the work, the Owner reserves the right to call upon the secondary bidder for the use of their workers and equipment.

21. CONTRACTOR'S INSURANCE

Each Bidder must be able to enter into contract, covering the work, within 10 days from the acceptance of his proposal. The successful bidder must, within 10 days from the date of acceptance of his proposal, file with the Owner, Workmen's Compensation, Comprehensive General Liability, Comprehensive Auto Liability, Certificates of Insurance satisfactory to the Owner, in compliance with the law, and in the following form and amount:

Whenever tree trimming is to be done within a public or private right-of-way requiring special insurance coverage, the Contract shall conform to the particular requirements and provide the required insurance.

Liability Insurance shall include all major divisions of coverage and be on a comprehensive basis including:

1. Premises Operations, including X, C and U coverage as applicable.
2. Independent Contractor' Protective.
3. Products and Completed Operations.
4. Personal Injury Liability with Employment Exclusion deleted.
5. Contractual.
6. Owned, non-owned and hired motor vehicles.
7. Broad Form Property Damage including Completed Operations.

Workers' Compensation

State:	Statutory
Voluntary Compensation (by any exempt entities)	Same as State Workers' Compensation
Employer's Liability	\$1,000,000 Each Accident \$1,000,000 Disease, Policy Limit \$1,000,000 Disease, Each Employee

General Liability (Including Premises-Operations; Independent Contractors' Protective; Products and Completed Operations; Broad Form Property Damage):

- (a) Bodily Injury: \$1,000,000 Each Occurrence
\$3,000,000 Aggregate
 - (b) Property Damage: \$1,000,000 Each Occurrence
\$3,000,000 Aggregate
 - (c) Contractual Liability (Hold Harmless Coverage) or included in Commercial General Liability Coverage:
 - (1) Bodily Injury: \$1,000,000 Each Occurrence
 - (2) Property Damage: \$1,000,000 Each Occurrence
\$3,000,000 Aggregate
 - (d) If General Liability policy includes a General Aggregate, such General Aggregate shall not be less than \$3,000,000. Policy shall be endorsed to have General Aggregate apply to this Project only.
3. Umbrella Excess Liability or \$5,000,000 excess which would not require retention.
\$5,000,000 over Primary Insurance
4. Comprehensive Automobile Liability (owned, non-owned, hired):
- (a) Bodily Injury: \$1,000,000 Each Occurrence
\$3,000,000 Aggregate

The City of Norwich (Owner) and Norwich Public Utilities shall be named as additional insured on the above coverage's.

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

No contract shall be binding upon the Owner until Comprehensive General Liability, Comprehensive General Auto Liability and Workmen's Compensation policy certificates indicated

above have been filed with the Owner and approved as to form and sufficiency by the Owner. The insurance policy certificate provided by the successful bidder and all subcontractors shall carry a statement by the insurance company that the Owner will receive at least ten (10) days' notice prior to cancellation of any portion of the policies or any modifications in the insurance coverage that may affect the Owner's interest. The cost of all insurance coverage shall be included in the price of the contract cost.

The insurance company must be licensed to do business in the State of Connecticut and must be satisfactory to the Owner.

22. INDEMNITY OF OWNER BY CONTRACTOR

The Contractor shall indemnify and save harmless the Owner against any and all damages to property, or injuries to or death of any person or persons, including property and employees or agents of the Owner. The Contractor shall defend, indemnify and save harmless the Owner from any and all claims, demands, suits, actions or proceedings of any kind or nature including workmen's compensation claims, of or by anyone whomsoever, in any way resulting from or arising out of the operations in connection herewith.

23. SPIRITUOUS LIQUORS AND DRUGS

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

24. PROHIBITING EMPLOYEE DISCRIMINATION BY CONTRACTOR

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

25. CLAIMS FOR ADDITIONAL COMPENSATION

The contractor shall perform and provide services under the contract and shall not be entitled to any compensation in addition to the amount provided under the contract for the term of the contract.

26. USE OF "HE", "HIS" OR "HIM"

Whenever in these specifications the masculine words, "he", "his", or "him" are used pertaining to the Contractor, Owner, Engineer or any other entity or person it shall be for brevity, and in no way is any sexual discrimination intended.

TABLE OF CONTENTS – SPECIAL CONDITIONS/SPECIFICATIONS

1. Bidder's Equipment
2. Availability of Crews
3. Owner to Define Project Area
4. Work in Inclement Weather
5. Permits and Rights-of-Way
6. Reports, Records and Data

SPECIAL CONDITIONS/SPECIFICATIONS

1. BIDDER'S EQUIPMENT

The bidder's equipment shall be of good quality and it shall be maintained in good working condition so as to preclude any unnecessary breakdowns causing job hold-ups, as would be caused by improper maintenance. The Owner is not responsible to pay for delays resulting from equipment breakdown.

2. AVAILABILITY OF CREWS

Contractor shall follow instructions for executing work as outlined by the Owner, his foreman or agent in charge of such work, or the Director of Public Works, his foreman or agent in charge of such work. The Contractor's employees shall work under the same safety rules and conditions that apply to the employees of the Owner.

The bidder shall be available for routine assignments Monday through Friday between the hours of 7:00 a.m. and 3:30 p.m. Some after hour work may be required.

3. OWNER TO DEFINE PROJECT AREA

When work is assigned as a project the entire area shall be considered a single project. Work shall be assigned by addresses and project if applicable; payment will be made by project area.

4. WORK IN INCLEMENT WEATHER

The Owner or the Owner's Representative will determine when conditions are unfavorable for work and may order the work or any portion of it suspended whenever, in his opinion the conditions are not such as will insure first class work. In general, work shall be prosecuted throughout the year and the Contractor will be expected to keep work going and employment of labor as continuous as possible.

5. PERMITS AND RIGHTS-OF-WAY

The Owner will secure all necessary rights-of-way for the proper completion of the work to the Contractor. Where permits are required in areas of public dedication or easements must be obtained across private property, the Owner shall provide to the Contractor information that describes the land owned and rights-of-way acquired, along with any special conditions that must be satisfied by the Owner or the Contractor.

The Contractor shall abide by all regulations and conditions stipulated in any and all permits granted to the Owner, whether on public or private property, any such conditions and requirements are hereby made a part of this contract. Failure of the Contractor to examine permits granted to the Owner shall not relieve the Contractor from compliance with the requirements stated herein.

The Owner will provide no right-of-way over adjacent property, and the Contractor shall not enter upon private property for any purpose without obtaining permission from the property owner. The Contractor shall provide at his own expense and without liability to the Owner any additional land and access thereto that the Contractor may desire for temporary construction or storage of materials.

It shall also be the responsibility of the Contractor, prior to commencing work on easements through private or public property, to inform the property owner of his intent to begin the work.

6. REPORTS, RECORDS AND DATA

The Contractor and each of his subcontractors, shall submit to the Owner such schedules of quantities, and costs, progress schedules, payrolls, reports, estimates, records, and other data as the Owner may request concerning the work performed or to be performed under this contract.

Information on work completed shall be documented on a form provided by the Owner and shall be turned into the Owner weekly.

TABLE OF CONTENTS – TECHNICAL SPECIFICATIONS

1. Summary of Work
2. Construction Standards
3. Material Standards
4. Safety and Health Standards
5. Response Criteria
6. Construction Methods
7. Contractor to Lay Out His Own Work
8. Maintenance and Protection of Traffic
9. Work on or Near Private Property

TECHNICAL SPECIFICATIONS

1. SUMMARY OF WORK

This work is for the replacement of existing bituminous concrete pavement, including milling, installing concrete lip curbing, installing temporary and permanent pavement and overlay on surfaces associated with the installation of utilities in the Norwich Public Utilities system. The project area is all streets in the City of Norwich and surrounding towns in which the City of Norwich Public Utilities has utilities installed

2. CONSTRUCTION STANDARDS

- Gravel base shall be placed and compacted in accordance with Article 3.04.03 of the Standard Specification - Form 814A
- Pavement shall be placed in accordance with the applicable provisions of Section 4.06 of the Standard Specifications
- Trench pavement of four (4") inch and the nine (9") compacted thickness bituminous pavement shall be placed in two and five lifts, respectively, in accordance with the requirements of Article 4.06.03 of the Standard Specification.
- Construction methods for lip curbing shall conform to the requirements of Form 814A, Article 8.15.03, and any other applicable Articles
- All milling shall conform to Connecticut DOT requirements
- Overlay shall be placed in accordance with Article 4.06.03 of the Standard Specifications and in accordance with the attached details
- All patches shall be squared up to nearest ½ foot and be made to have 90 degree corners.
- All cold-patch must be removed prior to permanent patch.

3. MATERIAL STANDARDS

It is understood that, except as otherwise specifically stated in the contract documents, the Contractor shall provide and pay for all materials, labor, tools, equipment, water, light, power, transportation, superintendence, temporary construction of every nature, and all other services and facilities of every nature whatsoever, necessary to protect, execute, complete, and deliver the work within the specified time.

- Processed Gravel Base: Gravel base under pavement shall conform to the requirements of Sub-article M.05.01, 1, M.05.01-2, M.05.01-3 of the standard specifications, Form 814A.
- Temporary Pavement: Bituminous concrete shall conform to the requirements of Section M.04 of the Standard Specifications for surface course, Class 1.
- Permanent Trench Pavement: Bituminous concrete surface course shall conform to Article M.04 of the Standard Specifications for surface course, Class 1, 2 and binder course, Class 4.
- Bituminous Concrete Lip curbing: Materials for this work shall conform to the requirements of Form 814A, Article M.04.01, Class 3, and any other applicable Articles.

- Overlay: Bituminous concrete surface course shall conform to Article M.04 of the Standard Specifications for surface course, Class 2.

4. SAFETY AND HEALTH STANDARDS

Successful bidders must demonstrate compliance with all applicable OSHA standards including without limitations the following standards:

- 29 CFR 1926.650 “Excavations-Scope, application, and definitions”
- 29 CFR 1926.651 “Excavations-Specific Excavation Requirements”
- 29 CFR 1926.652 “Excavations-Requirements for Protective Systems”
- 29 CFR 1926.Subpart P Appendix F – “Selection of Protective Systems”
- 29 CFR 1910.1200 “Hazard Communication”
- 29 CFR 1910.146 “Permit Required Confined Spaces”
- All resurfacing materials and methods shall be in compliance with Connecticut State Highway Department and/or City of Norwich Department of Public Works requirements as amended dependent upon the location of the work.

To demonstrate compliance, bidders must provide with the bid, documentation supporting compliance with the above standards. Documentation includes written company policies and procedures, and documented ‘competent person’ training.

The Contractor is responsible for ensuring OSHA compliance, and his responsibility includes supervising and monitoring work site conditions for OSHA compliance. If the contractor uses subcontractors, the contractor is responsible for ensuring that the sub-contractors fulfill their obligations with respect to employee safety, particularly including those, which affect the entire site. The contractor shall have a competent person on the job site at all times. A Competent person in this context means one who is capable of identifying existing and predictable hazards in the surroundings, or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

The City shall consider OSHA violations over the past five years in determining the ability of the Contractor to comply with OSHA requirements and in determining whether the contractor is an acceptable bidder.

If there has been an OSHA violation within the past five (5) years (measured from the date of the bid), the contractor shall provide copies of the citation(s), all documents regarding final determination of such citations including settlements or any explanations(s) of such violation(s).

The Contractor must also comply with the NORWICH PUBLIC UTILITIES SAFETY GUIDELINES included with these specifications. The contractor must submit a signed “Contractors Safety Requirements Acknowledgement Form” to Norwich Public Utilities prior to the start of construction.

The Contractor shall install the separate utilities in conformance with the typical construction methods and standards of the City including appropriate sections of DOT Form 814A as amended. Materials supplied by the Contractor shall conform in quality to the typical materials used by each Department and to appropriate section of DOT Form 814A. Workmanship shall be of a quality that is completely acceptable to the City and to its satisfaction.

5. RESPONSE CRITERIA

The contractor is expected to respond for scheduled work within 2 Weeks from date of request. This contract is based on the contractor's ability to be available for normal scheduled work Monday through Friday, 7:00AM – 3:30PM, and to follow the city's start and end time for their workers and equipment. The Bidder must further indicate their company's policy for inclement weather, holidays, and other off times.

The Contractor is expected to complete all assigned work within thirty (30) days of assignment. The Contractor must be available and able to perform the work until local asphalt plants close for the season.

6. CONSTRUCTION METHODS

Processed Gravel Base (as needed): This item of work includes placing processed gravel base to the compacted thickness shown on the attached detail, prior to placement of permanent pavement. The processed gravel base shall be placed on the prepared subgrade prior to placing of the pavement.

Temporary Pavement: Temporary pavement shall be placed on the specified thickness processed gravel base. Temporary pavement shall be installed per the attached detail and have the compacted thickness specified herein. Temporary pavement shall be placed at the end of every work day as required by the CT DOT permit for work on State Highways. Temporary pavement shall be placed at the end of every work week for all other streets. This item of work includes the immediate replacement of pavement, which has been removed for the installation of utilities and appurtenances or other underground installations. The temporary pavement shall consist of 2" compacted bituminous concrete, placed on the designated thickness of compacted gravel base in accordance with the limits and to the dimensions shown on the attached detail, specified herein, or as directed by the Owner.

Permanent Trench Pavement: Temporary pavement shall be removed, the existing pavement cut back 6 inches from the edge of disturbed trench in straight lines parallel to the edges of the roadway using approved power tools, and the processed gravel base placed and compacted as specified in these Specifications and in accordance with the attached details. Tack coat shall be applied to the edge of existing pavement where it meets the new pavement. The four (4") inch and the nine (9") compacted thickness bituminous pavement shall be placed in two and five lifts, respectively. Permanent Pavement Replacement for Trench shall consist of a two course, four (4") inch (local roads) or a five coarse, nine (9") inch (state roads) compacted thickness bituminous concrete surface course, constructed on the compacted thickness processed gravel base in the locations and in accordance with the attached details or as directed by the Owner.

Bituminous Concrete Lip Curbing: The work under this Section shall be the construction of bituminous concrete lip curbing consisting of machine laid bituminous concrete constructed on the edge of the pavement in conformance with these specifications and the attached details and as directed by the Owner.

Milling: A neat straight longitudinal saw cut (2 inch depth) shall be made at the extent of each side of the surface to be milled. The Contractor will mill a minimum of 2" in depth along the longitudinal saw cuts to the extent required as shown on the Contract Drawings. Prior to paving the milled area will be swept and tack coated with CSS-1H at .035 gals. per square yard. The longitudinal saw cut joint will be painted with an acceptable tack coat material. The milled surface will be paved with Class 1 Bituminous Concrete to a compacted 2" depth using a self-propelled paving machine covering the entire milled area. After the final pavement has been placed and compacted, the joints will be sealed with 85/100 asphalt or an approved substitute. The work under this section includes furnishing all labor, equipment and performing all operations in connection with milling existing pavement surfaces

Overlay: Contact surfaces of curbing's, gutters, manholes, etc., shall be painted with a thin uniform coat of hot asphalt cement, or asphalt cement, or asphalt cement dissolved in naphtha, just before the material is placed against them. Where the bituminous material is spread on the concrete or an old bituminous base, a uniform coat of asphalt shall be spread about one foot wide along each edge of the pavement to prevent water from getting between the new pavement and the base. In any area where the new pavement is less than 1 1/2 inches thickness and on steep grades the Engineer may order a very light web-like coating of hot asphalt paint applied to the old pavement. Care must be taken not to apply too heavy a coating or large blobs of asphalt paint. Overlay shall consist of a one course compacted thickness bituminous concrete surface course, constructed over a milled surface or existing pavement

7. CONTRACTOR TO LAY OUT HIS OWN WORK

The Owner will establish such general reference points as in his judgment will enable the Contractor to proceed with the work. The Contractor, at his own expense shall provide all materials and equipment and such qualified helpers as the Owner may require for setting out general reference points and shall protect and preserve all stakes, benches, and other markers used to identify the reference points. The Contractor shall lay out all the Contract work from the above and shall be responsible for the accuracy of all lines, grades and measurements

The contractor shall coordinate work with Norwich Public Utilities as outlined in the Specifications, where appropriate, or as required by the Owner.

All costs associated with sequencing of work and coordination shall be included in the bid prices for other items.

8. MAINTENANCE AND PROTECTION OF TRAFFIC

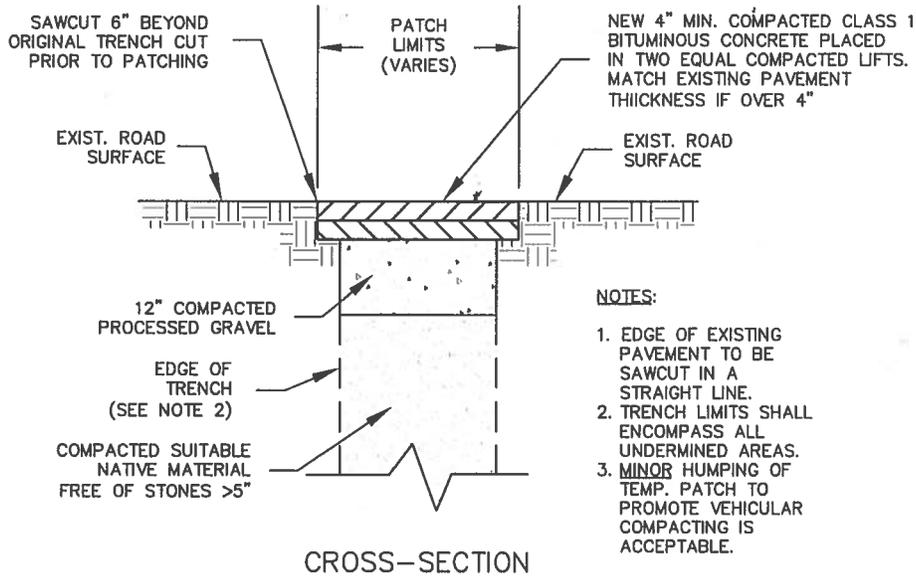
The Contractor shall maintain traffic in the project area to the satisfaction of the Owner. The Contractor must maintain pedestrian and vehicular traffic and permit access to businesses, factories, residences, and intersecting streets. Where detours will be required, the Owner may require the Contractor to submit a proposed detour plan for all portions of the work to the Owner. This submittal shall be made at least seven days prior to commencing construction. It shall be the sole responsibility of the Contractor to keep the Local Agencies (including but not limited to the Police and Fire Departments) pre-warned at least 72 hours in advance of changes in traffic patterns due to reduction of pavement widths or closing of streets. The Contractor shall supply, install, maintain, adjust, move, relocate, and store all signs, suitably lighted barricades, traffic cones and traffic delineators, as necessary to carry out the traffic routing plan and maintain vehicular and pedestrian traffic. All of this work shall meet with the requirements of the State of Connecticut, Local Agencies and the Owner.

9. WORK ON OR NEAR PRIVATE PROPERTY

Every effort shall be made to protect private or public property during construction. All damaged areas shall be replaced in kind by the Contractor at no additional cost to the Owner. All materials not specifically described in other sections, but required for replacement work shall be new, first quality of their respective kinds, and subject to the approval of the Owner.

All areas affected by the construction outside of the work limits shall be repaired to the complete satisfaction of the Owner. This work shall also include the reinstallation of all mailboxes, signs, and posts that may be affected during construction. Should these items become damaged by the construction, the Contractor shall replace the damaged items at no additional cost to the Owner.

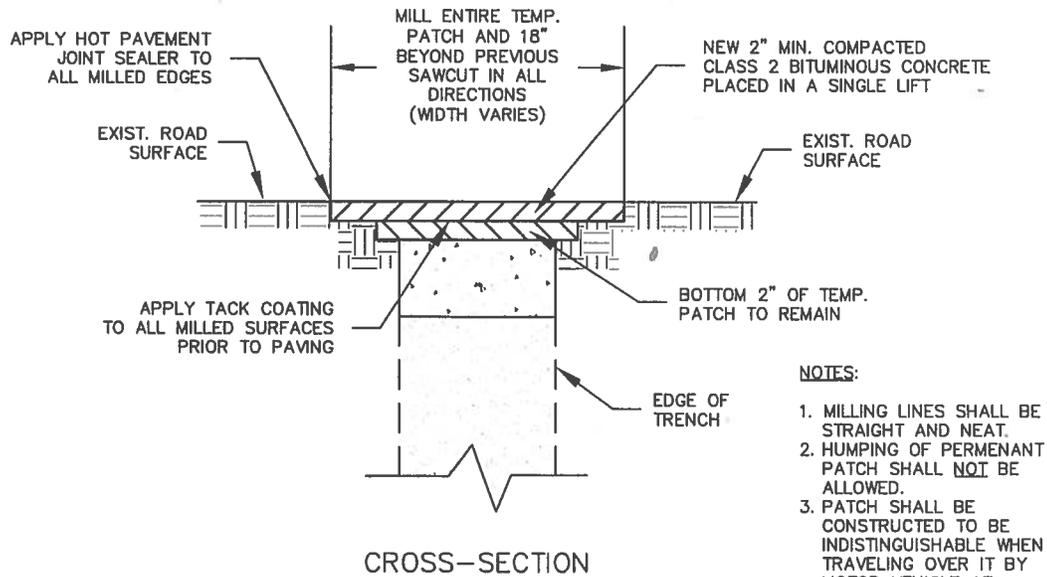
STEP 1
PERMANENT PATCH



NOTES:

1. EDGE OF EXISTING PAVEMENT TO BE SAWCUT IN A STRAIGHT LINE.
2. TRENCH LIMITS SHALL ENCOMPASS ALL UNDERMINED AREAS.
3. MINOR HUMPING OF TEMP. PATCH TO PROMOTE VEHICULAR COMPACTING IS ACCEPTABLE.

STEP 2
PERMANENT PATCH



NOTES:

1. MILLING LINES SHALL BE STRAIGHT AND NEAT.
2. HUMPING OF PERMANENT PATCH SHALL NOT BE ALLOWED.
3. PATCH SHALL BE CONSTRUCTED TO BE INDISTINGUISHABLE WHEN TRAVELING OVER IT BY MOTOR VEHICLE AT POSTED SPEED LIMIT.

PAVEMENT PATCH DETAIL FOR ROADS RATED
IN GOOD OR EXCELLENT CONDITION

NORWICH DEPT. OF PUBLIC WORKS

N.T.S.

(ADOPTED SEPT. 2014)

NORWICH PUBLIC UTILITIES SAFETY GUIDELINES

CONTRACTOR REQUIREMENTS

1.0 Contractor Responsibilities

Introduction:

The following are the Norwich Public Utilities contractor safety requirements. You, the Contractor are to read this material carefully and be prepared to sign and date the back page indicating that you will comply with these requirements. Please feel free to contact Klaus F. Broscheit, Norwich Public Utilities Safety Officer (508) 776-9713 with any questions.

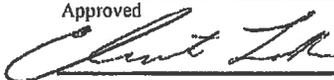
Prior to Operation:

- 1.1 General safety operating requirements will be discussed at the Contractor's Orientation Meeting, prior to the start of the job.
- 1.2 The contractor must advise the Norwich Public Utilities Project Manager of hazards associated with their proposed work operation (chemicals, gases, dusts, radiation). Contractors will not be permitted to bring hazardous chemicals or materials onto Norwich Public Utilities property without first providing the Material Safety Data Sheet, in advance, to the General Manager of Operations for approval by the Norwich Public Utilities Safety Officer. (See Guide 1 and 2 for additional Hazcom and Chemical Handling information and requirements).

2.0 Supervision of Employees

- 2.1 All contractors who conduct work at any Norwich Public Utilities facility will be responsible for complying with all applicable Federal, State, Local, OSHA and Norwich Public Utilities Environment, Health and Safety regulations. The contractor is responsible for notifying his/her personnel of specific hazards, emergency procedures, safe work practice, and safety rules which must be followed while on the job site.
- 2.2 The contractor is responsible for supervision of his/her work force and any subcontractors with regard to all aspects of the project. He/She agrees that all procedures discussed during the orientation are understood by the workers and will be followed.

Approved



Date of Issue
5/19/10

Revised

Number
SG-116

Page
1 of 5

- 2.3 The contractor will be responsible for providing his/her employees with medical care and first aid treatment.
- 2.4 Loose or hanging clothing, jewelry and long hair are prohibited near moving machines or parts.
- 2.5 Smoking is not permitted at any Norwich Public Utilities facility. Fire prevention and control is critical at any Norwich Public Utilities facility. Please review Guide 3 "Fire Protection and Prevention" for additional requirements.

3.0 Safety Equipment

- 3.1 The contractor is responsible for compliance with Norwich Public Utilities and OSHA regulations with regard to furnishing their employees with all necessary personal protective equipment and all tools and equipment needed to perform service at a Norwich Public Utilities facility. Norwich Public Utilities PPE; tools and equipment shall not be allowed to be used by contract personnel unless authorized in advance by NPU.
- 3.2 Hard hats must be worn in all areas where work is being performed.
- 3.3 Eye protection shall be worn when performing a task which may endanger sight, and in all designated areas where safety glasses are required. (See Guide 4 "Personal Protective Equipment" for additional PPE information and requirements).
- 3.4 Hearing protection shall be worn as required. (See Guide 5 "Hearing Conservation" for additional information and requirements).

4.0 Work Area

- 4.1 The contractor is not permitted to manipulate any switch controls, valves or instruments without advance approval. The contractor will request permission, in advance, before commencement of any work on piping, electrical distribution systems, or utility systems.
- 4.2 Equipment lock-out mechanisms (locks and tags) shall be used in accordance with OSHA standards Lockout/Tagout Procedures.
 - A. Contractors will comply with OSHA 29 CFR 1910.269(d) or 29 CFR 1910.147 standards, "The Control of Hazardous Energy", and shall not

begin work until procedures are coordinated with Norwich Public Utilities representatives.

B. Norwich Public Utilities locks and/or tags may be added (in addition) to outside contractor locks, and shall not be removed until a Norwich Public Utilities representative determines that it is safe to re-engage the energy source.

4.3 Practice good housekeeping at all times. Do not leave materials or equipment blocking aisles, walkways, stairs or other paths of egress.

4.4 Defective tools or equipment shall not be used. All tools and extension cords shall meet or exceed applicable standards.

4.5 Equipment requiring guards and safety devices shall be in good operating condition and shall have all guards in place and all safety devices working properly.

4.6 All ladders shall be ANSI approved and used in accordance with OSHA standards. All ladders shall be inspected each time before use.

4.7 Machinery and equipment shall not be started before a thorough check of the work area has been made by the project manager to assure that people are clear of any moving parts or operations, and all affected employees have been notified.

4.8 No person shall activate or operate powered industrial equipment without proper authorization.

4.9 No confined space will be entered by contractor personnel unless they follow recognized safe confined space entry procedures such as in U.S. NIOSH guidelines, ANSI Standard or other comparable State, Local, or Federal regulations. A confined space is defined as a vessel, tank, pipeline, pit or enclosed space where dangerous air contamination or lack of oxygen may be present due to a manufacturing process or work procedure, or where an egress path may be limited.

A. The Norwich Public Utilities Safety Consultant shall be notified of any planned confined space entries.

B. No personnel shall enter a confined space before a permit has been completed and posted on site.

C. All contractors must supply their own monitoring and safety equipment for confined space entry.

- 4.10 Contractors will observe and honor all signs posted in the area in which they are working. Restricted areas are not to be entered without the express direction of the project manager.
- 4.11 Personal fall protection is required when working on unprotected surfaces 6 feet or more above ground. (See Guide 6 “Working at Elevations” for additional information and requirements when working at elevations).
 - 4.11.1 Electrical Safety is a critical concern to Norwich Public Utilities. All work related equipment is to be de-energized unless live circuit/equipment testing and maintenance is required. Line work can only be performed by “Qualified and Trained Employees” wearing the appropriate PPE and arc blast protection. NFPA 70-E requirements are to be enforced for all live work. (See Guide 7 “Electrical Safety” for additional information and requirements).
- 4.12 Any required Excavations shall follow the applicable OSHA standards. See “Guide # 8 – Excavations and Trenches” for additional contractor information and requirements.

5.0 Disclaimer

The provisions of this section should be considered as an introduction and not a substitute for a thorough understanding of the subjects. Furthermore, it is for information purposes only. This Document does not relieve the Contractor of its obligations to (1) control the manner and means by which it and its employees, subcontractors and agents perform work or services for Norwich Public Utilities and (2) independently ascertain what health and safety practices are appropriate and necessary for the performance of such work or services. Contractors are expected to be familiar with and follow appropriate health and safety practices, including those required by the Federal Occupational Health and Safety Act (“OSHA”) and those set forth in applicable Occupational Safety and Health Administration (OSHA) regulations, as well as any other applicable federal, state or local code.

**CONTRACTORS SAFETY REQUIREMENTS
ACKNOWLEDGEMENT FORM**

I have received copies and read all the NORWICH PUBLIC UTILITIES
"Contractors Safety Requirements" including the accompanying Guides. I
understand these rules and agree to comply with them in entirety.

Contractor Representative

Company Name

Date

This signed document was given to the following NORWICH PUBLIC UTILITIES
representative:

NORWICH PUBLIC UTILITIES Representative

Date

GUIDE 1: HAZARD COMMUNICATION

OVERVIEW

OSHA requires that the hazards associated with all chemicals used or stored at a job site be evaluated. This information must be communicated to employees who may be exposed to these chemicals or use them in their daily jobs. The process for informing employees about the chemicals, their locations and potential hazards is called a Hazard Communication (HAZCOM) program. In general, this program includes requirements and procedures for container labeling and other forms of warning procedures for obtaining and retaining material safety data sheets (MSDSs) and employee training.

MINIMUM HAZCOM REQUIREMENTS

In order to work at any Norwich Public Utilities facility or on any project, all contractors must, at least, meet the following requirements:

1. If any hazardous material is used or stored at the job site, the contractor's written HAZCOM program must be available to all contractor and Norwich Public Utilities personnel for review upon request.
2. The HAZCOM program must include procedures for:
 - Labeling containers and the use of warning forms;
 - Obtaining and retaining MSDSs;
 - Specific worker training requirements;
 - Documentation that these training requirements have been completed by each worker;
 - A list or inventory of hazardous material at the job site.
3. The contractors' supervisor must inform all workers about the hazardous material at the job site when they are first assigned to a project and whenever a new hazardous material is brought to the site.
4. Workers must be informed of the location of:
 - The HAZCOM program;
 - The list/inventory of hazardous substances;
 - The locations of MSDSs and the procedures for obtaining a copy of an MSDS;
 - These must all be available for each worker to review during their work period.
5. The Norwich Public Utilities representative must be informed of all chemicals brought to the site.
6. Each contractor must obtain information from the Norwich Public Utilities representative regarding chemicals that Norwich Public Utilities uses or stores at the site.
7. When more than one contractor is working at a job site, each contractor must inform the other(s) concerning the location of their MSDSs and procedures for labeling and worker protection.
8. THE PRIME CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE HAZCOM PROGRAM ON THE JOB SITE.
9. All containers will be labeled.
 - Labels on hazardous material containers will not be defaced or removed.
 - The labels will identify the substance in the container and appropriate warnings about the substance.
 - The material identity will match the material currently in the container, its MSDS, and the overall list/inventory.

10. An MSDS must be available at the job site for every chemical that is present at the site.
- A documented training program will be provided to every worker at the job site. This training will include:
 - Information regarding the HAZCOM program;
 - Health and environmental hazards of every chemical used at the job site;
 - Ways to detect the presence of hazardous materials at a job site (including monitoring methods and devices used);
 - How to read and understand the information contained on an MSDS; and
 - How workers can protect themselves from harmful exposure (e.g., safe work practices, personal hygiene, and protective equipment).

GUIDE 2: CHEMICAL SAFETY AND HANDLING

OVERVIEW

Federal and State laws as well as Norwich Public Utilities require that specific procedures are followed to properly handle chemicals to protect workers and prevent spills. These procedures include those for storing, handling, transferring and processing chemicals.

MINIMUM CHEMICAL SAFETY AND HANDLING REQUIREMENTS

Prior to working at any Norwich Public Utilities facility or project, all contractors must, at a minimum, meet the following requirements.

1. The contractor must assure that the equipment brought into a Norwich Public Utilities site to deliver or store hazardous chemicals is in good condition and that all equipment required is operating.
2. Contractor personnel must be licensed and/or have the necessary handling permits or certifications. Documentation must be present with the driver or on the vehicle at all times for inspection by a Norwich Public Utilities representative.
3. Contractor personnel must be thoroughly familiar with operation of equipment and the use of materials or chemicals used at any Norwich Public Utilities facility.
4. Contractor personnel should have knowledge of the physical properties, hazards and personal protective equipment (PPE) required. All contractor personnel shall be provided with appropriate PPE for the chemicals and hazards present.
5. Spill response equipment shall be available on location to contain or control a reasonably anticipated release or spill. All chemical spills at a Norwich Public Utilities facility or location must be reported to a Norwich Public Utilities authorized representative immediately upon discovery.
6. Contractor will provide to Norwich Public Utilities a complete inventory of chemicals brought onto a Norwich Public Utilities facility or location. Contractor must have all material safety data sheets (MSDS) for the material carried and available on request.
7. At the end of the project the contractor shall remove any chemicals that were not used.

GUIDE 3: FIRE PROTECTION AND PREVENTION

OVERVIEW

Fire safety and prevention is critical to the effective operations of Norwich Public Utilities facilities. Norwich Public Utilities focuses on responsibly safeguarding human and business assets to avoid a fire or explosion that may cause injury or disrupt operations. All contractors performing construction and maintenance operations must implement measures to prevent and control fires, if one occurs.

FIRE PREVENTION AND FIRE CONTROL REQUIREMENTS

Prior to working at any Norwich Public Utilities facility or project, all contractors must, at a minimum, meet the following requirements.

1. The contractor program must identify the fire protection requirements and procedures.
2. The contractor must identify personnel who are trained in the use of fire extinguishers and fire fighting techniques and can fight a fire during the early or incipient stage.
3. A Norwich Public Utilities Representative will be informed of all fire or explosion occurrences.
4. Ensure all field offices, shanties and storage facilities are constructed in accordance with applicable codes and fabricated noncombustible material for protection against fire.
5. The contractor must identify and inform Norwich Public Utilities operations that present a potential fire hazard, for example hotwork (welding, grinding and cutting) and the use of flammable liquids and gases.
6. Contractor must implement procedures to eliminate and control fire hazards including housekeeping, electrical safety, safety procedures for hot work, storage and handling of flammable and combustible liquids and compressed gases.
7. Good housekeeping standards must be enforced in the work area, including the requirements that waste, rubbish and flammable materials and rags be removed from the area daily.
8. All waste, rubbish and flammable materials must be stored in approved containers.
9. Non combustible tables or shelves, or protected work area will be used for hot work.
10. Storing flammable liquids in approved safety cans that are painted red with a yellow band around the can and labeled to identify the contents.
11. Storing combustible liquids in green safety cans that are labeled to identify the contents.
12. Storing all Flammable Combustible Liquids (FCL's) in closed approved metal cabinets and only storing quantities of these liquids on-site that do not exceed the minimum amount required for efficient operation.
13. Prohibit the use of gasoline and other highly flammable liquids for cleaning.
14. Using approved pumps or approved self-closing faucets and drip pans when dispensing FCL from drums or portable tanks.
15. Class B/C rated fire extinguishers will be located in close proximity to FCL areas and monthly and annual inspections will be performed to ensure that the units are ready for use.

16. In the event of a fire involving compressed gases, the gases will be permitted to burn and not extinguished, under any circumstances.
17. Oil, grease and highly volatile liquids must not be stored near oxygen cylinders.
18. Smoking is prohibited near flammable or combustible liquids and gases.
19. Using liquefied petroleum gas (LPG) indoors for cutting and/or welding operations shall be limited to small quantities and no more than a 1-pound bottle shall be stored in the building.
20. Open flames or spark-producing tools must not be used in any enclosure where an explosion concern may exist until testing indicates that an explosion hazard does not exist.
21. Obtain a NPU Hot Work permit if working in vicinity of a natural gas regulator or LNG facility.

GUIDE 4: PERSONAL PROTECTIVE EQUIPMENT

OVERVIEW

For many tasks, personal protective equipment (PPE) is as essential to the job as any tool. OSHA requires that every employer evaluate all tasks associated with a project to determine the hazards associated with these tasks and the appropriate PPE to be worn by each affected employee. This hazard assessment must be documented.

MINIMUM PPE REQUIREMENTS

In order to perform work at any Norwich Public Utilities facility or project, all contractors must, at least, meet the following requirements.

1. All employers must conduct a hazard assessment prior to the start of every project and as conditions change on the project to determine the types of PPE necessary for each task.
2. The results of the hazard assessment must be communicated to every employee on the project prior to the start of work and as conditions change.
3. All workers must be trained to recognize the need for and types of PPE necessary, the proper use of PPE, the limitations of PPE, and proper care and disposal of PPE.
4. All workers must be trained in the procedures for inspecting PPE prior to use to ensure it provides the required protection.
5. All PPE used must meet applicable American National Standards Institute (ANSI) standards.
6. All PPE must be maintained in a sanitary and reliable condition.
7. Where employees supply their own PPE, the employer is responsible for ensuring the adequacy, maintenance and sanitation of this PPE.
8. Hard hats must never be changed or modified in any way and must be appropriate for the type of work being performed.
9. Eye protection must be appropriate for the type of work being performed and must be equipped with side shields.
10. Burning goggles must be equipped with appropriate filtering lenses for the work being performed.
11. Gloves must provide adequate wrist and hand protection based on the tasks being performed and must be compatible with and resistant to any potential hazard (sharps, chemical, electrical, etc.)
12. Safety shoes or boots must be fitted with protective toe guards.
13. Additional PPE may be necessary for certain situations, for example overboots or rubber boots should be worn for wet conditions or chemical spills, etc.
14. Protective clothing (reusable or disposable) must be appropriate for the type of work being performed.
15. Orange or lime colored reflective vests, approved by the U.S. Department of Transportation must be worn when working in areas exposed to or adjacent to vehicle traffic.

16. Workers required to wear hearing protection must be allowed to select the type of devices they wish to wear from a number of suitable devices.
17. Flame resistant garments are required in areas where there is a potential for arc or flash.

GUIDE 5: HEARING CONSERVATION

OVERVIEW

Noise is defined as unwanted sound. Noise can cause sudden traumatic temporary hearing loss, long-term slowly occurring hearing loss that is irreversible, disruption of communication and masking of warning devices and alarms. These long-term effects may occur at noise levels lower than are constant and daily.

MINIMUM HEARING CONSERVATION REQUIREMENTS

In order to perform work at any Norwich Public Utilities facility or project, all contractors must, at least, meet the following requirements.

1. Workers must not be exposed to noise levels above those stated in the regulations.
2. All noise levels must be measured on the A-weighted scale by a trained person.
3. When noise exposure includes two or more periods at different noise levels, the combined noise exposure must be calculated.
4. When noise levels exceed the permissible limits, worker exposure must be controlled through engineering controls, administrative controls, personal protective equipment (PPE) or a combination of these.
5. Engineering controls consist of isolating, enclosing or insulating equipment or operations or substituting quieter equipment or operations.
6. Engineering controls are always preferred over other controls.
7. Administrative controls involve rotating workers to jobs having lower noise exposures and reducing the time that each worker is exposed.
8. PPE, for example earplugs and earmuffs, must be rated to reduce the noise exposure to within acceptable limits.
9. A noise exposure at or above 85 decibels on the A-weighted scale (dBA) averaged over an 8-hour time period (with or without PPE) requires a formal written hearing conservation program.
10. A hearing conservation program must include:
 - Noise monitoring;
 - Procedures for employee notification;
 - Provisions to permit employees to observe monitoring;
 - Initial and annual audiometric testing and an evaluation of the audiogram by a qualified professional;
 - A noise training program for all affected workers, and;
 - Formal record keeping.

11. The following table is a guide to common noise levels:

<u>Permissible Duration (dBA)</u>	<u>Examples of Noise Sources</u>
15	Wooded Forest
25	Quiet Bedroom
35	Library
65	Normal Speaking
75	General Office Area
85	Average Machine Shop

Action Level for Hearing Conservation Program – 85 dBA

8 Hours	90
6 Hours	92
4 Hours	95
3 Hours	97
2 Hours	100 Air Spray Operation
1.5 Hours	102
30 Minutes	110 Power Table Saw
15 Minutes	115
7.5 Minutes	120
4 Minutes	125 Rock-n-Roll Concert
2 Minutes	130 Aircraft Jet Engine/Ear Pain Threshold
NOT TO EXCEED 140	

12. A standard rule of thumb for noise states that when standing face-to-face at a distance of 1 to 2 feet, if it is necessary to raise your voice to be heard, the background noise exceeds 85 dBA.

GUIDE 6: WORKING AT ELEVATIONS

OVERVIEW

Falls from elevated work areas are one of the leading causes of death each year in occupational settings. Fall prevention is provided by engineering controls such as safety railings or personal fall protection systems. Precautions should also be taken to protect personnel from falling objects. A competent person is required to manage all processes involving scaffolding to ensure that scaffolding is erected, moved, used and dismantled safely.

MINIMUM WORKING ELEVATION REQUIREMENTS

In order to perform work at any Norwich Public Utilities facility or project, all contractors must, at least, meet the following requirements.

1. Elevated surfaces include openings (pits), open-sided platforms, floors or runways, stairs, ladders, mobile scaffolding, lifting equipment (aerial lifts and ladders).
2. Work performed at elevations must include safety harnesses and lifelines including:
 - Working on unprotected surfaces 6 feet or more above the ground or water.
 - Working on scaffolding 6 feet or more above the ground not equipped with proper railing.
 - Work on lifts where portions of the railing must be removed.
3. Lifelines/harnesses must be inspected and comply with the American National Standards Institute (ANSI) standards and be used according to manufacturers' operating procedures.
4. The lanyard must be a minimum of one-half inch nylon or equivalent and must not allow a fall of greater than 6 feet or one that would contact any lower level.
5. A body harness must be worn and a lanyard attached to the boom strap when working from an aerial lift device. Body belts are prohibited.
6. All open-sided floors, platforms or runways where a fall of 6 feet or more may occur must have railings and toeboards on all open sides.
7. Approved ladders will be used and inspected before each use to ensure their integrity.
8. Scaffold planking, guardrails, ladders and toeboards must be installed on scaffolds as required by the regulations. A scaffold must be rated for four times its intended load.
9. CLIMBING ON SCAFFOLD CROSS MEMBERS IS PROHIBITED.
10. Scaffolding must be cross-braced or braced diagonally and be plumb, square and rigid. Sections of scaffolding are locked together with cotter pins if uplifting may occur.
11. Lean-to scaffolds are prohibited.
12. Loading limitation of scaffold must not be exceeded.
13. The erection, installation and use of various scaffold types will be in compliance with all laws and regulations and manufacturers operating procedures.

GUIDE 7: ELECTRICAL SAFETY

OVERVIEW

Electrical safety is an important component to any safety program. To minimize personal injury from contact with energized sources, workers must be trained in fundamentals of electrical safety and all electrical hazards on a project must be identified and corrected. Only properly licensed electricians may perform any electrical work on Norwich Public Utilities projects.

MINIMUM ELECTRICAL SAFETY REQUIREMENTS

In order to perform work at any Norwich Public Utilities facility or project, all contractors must, at least, meet the following requirements.

1. Before work begins, all electric circuits, exposed or concealed, that may be contacted by workers must be posted with warning signs.
2. All workers must be notified of the location and hazard involved with nearby electrical circuits and protective measures taken.
3. Workers must not work near any part of an electrical circuit unless they are protected against shock by guarding or by de-energizing and grounding the circuit.
4. Workspaces, walkways and similar locations must be kept free of electrical cords and tools.
5. Equipment must not be stored around electrical cabinets to prevent access.
6. Workers must inspect all electrical equipment, including extension cords, for the following hazards:
 - Missing ground pins on plugs (except double-insulated);
 - Insulation pulled free from plugs or support connections;
 - Damaged insulation;
 - Exposed wires; and
 - Evidence of arcing, sparking or smoking.
7. When any conditions are identified on equipment that makes it unsafe to operate, the equipment must be removed from the site until repaired by a qualified person.
8. Portable lamps must be covered by a fixed, grounded (if metal) guard and equipped with an insulated handle.
9. All underground utilities must be marked prior to any groundbreaking activities.
10. Flexible cords must be suitable for the condition and location of use and must be used as appropriate.
11. Three-wire extension cords must be used and must be rated for hard or extra-hard use.
12. Splices and/or taps are prohibited in extension cords.
13. Extension cords must not be fastened with staples, hung on nails or suspended on wires.
14. Workers must be trained in the safety-related work practices that pertain to their job and cannot work near electrical hazards without training to recognize and avoid the hazard.

15. Electrical workers must test all equipment to verify if energy is present.
16. Only qualified, trained workers may test electrical equipment.
17. Workers must properly lockout and tagout any circuit or equipment being worked on and verify the equipment is de-energized.
18. Personal protective equipment used by electrical workers must be appropriate and in good condition.
19. Portable metal ladders and ladders with metal reinforcement are prohibited near energized electrical equipment.
20. ALL electrical equipment used on a project (hand tools, etc.) must be protected with a ground-fault circuit interrupter (GFCI).
21. Materials must not be stored in transformer vaults.
22. AC and DC wiring systems must be properly grounded.
23. Proper clearance from overhead power lines must be maintained at all times.

Guide 8: Excavation and Trenching

Overview

Excavation operations are among the first actions taken at a project site. Accidental cave-ins of earth that has been excavated account for a large majority of fatalities each year. In many cases, workers receive no warnings when excavated ground collapses and are suddenly trapped under tons of soil.

Minimum Excavation Requirements

In order to perform work on any Norwich Public Utilities facility or project, all contractors must, at least, meet the following requirements. Please note that additional requirements may be necessary based on job-specific activities.

- ALL UTILITIES MUST BE MARKED-OUT BY APPROPRIATE AUTHORITIES PRIOR TO ANY EXCAVATION.
- A trench is considered an excavation.
- All underground hazards (electric lines, gas/water lines, boulders, etc.) must be de-energized or removed/supported appropriately.
- Hand digging must be conducted near known or suspected underground systems.
- Ramps or runways used as a means of entry/exit for excavations must be designed by a competent person.
- A ladder or other safe means of exit must be used in excavations greater than 4 feet deep and cannot be greater than 25 feet from all workers in the excavation.
- Entering an excavation during digging is prohibited.
- When the atmosphere in an excavation is/can become hazardous, Proper atmospheric testing must be conducted as required by the Confined Space Program., Section 6 in this Safety Guideline.
- Daily inspections of the excavation and surrounding areas must be conducted by a competent person before work begins and as needed during the shift.
- Excavations must be shored or braced if nearby structures (buildings, sidewalks, etc.) may become unstable.
- All material, including excavated soil, must be stored at least 2 feet from the side of the excavation.
- Workers may only pass over an excavation on properly constructed walkways/bridges with guardrails in place.
- Adequate physical barriers must be provided around all excavations.
- Adequate protective systems must be used in excavations unless:
 - The excavation is entirely in stable bedrock; or
 - The excavation is less than 5 feet deep AND has been examined by a competent person who has found no signs of potential cave-ins.

- All excavations greater than 5 feet deep must be properly sloped, shored, braced, shielded, or protected by a system designed by a professional engineer.

- If a potentially hazardous material is encountered during excavation, all work must stop until the material can be evaluated by a Safety Professional.

Regulatory

A complete text of the requirements for Excavations can be found in Title 29 Code of Federal Regulations, Part 1926, Subpart P.

Guide 9: Asbestos Awareness

Overview

Asbestos has been used in hundreds of different types of insulation products and building materials. Asbestos-containing materials (ACM) can release asbestos fibers into the air if damaged. To minimize the release of fibers and the potential for exposure concerns, the handling and removal of ACM is highly regulated. The highlights of our Company program are:

- Contractors are required to ensure that ACM is not inadvertently contacted or disturbed.
- Suspect ACM must be assumed to be ACM until results of sampling by a certified individual and analysis by a certified lab proves the material to be non-ACM.
- Contractors will comply with the local, state and federal regulations for ACM work.

Minimum Asbestos Awareness Requirements

When working in any Norwich Public Utilities facility or on any Norwich Public Utilities project, all contractors must meet, at a minimum, the following requirements. The contractor is responsible for ensuring that all controls and requirements are identified to address job-specific activities.

- All contractors handling ACM will be required to be certified and in accordance with applicable OSHA standards and be trained in the specific tasks they will perform.
- When contractor personnel contacts or disturbs ACM, the contractor will develop an Asbestos Abatement Work Plan that outlines the procedures for planning and completing the project/activity and will submit the Work Plan to the Norwich Public Utilities Project Coordinator for approval. The Contractor is responsible for the proper filing, permits and fees for projects that will disturb ACM.
- The contractor will use necessary equipment (negative pressure air machines, respirators, etc.) for activities that disturb ACM to control the releases of fibers and to ensure the safety of personnel.
- The contractor will comply with federal, state and local regulations, including approved site work procedures, asbestos abatement, disturbance control, personal and facility decontamination procedures, housekeeping practices, final cleanup requirements and clearance procedures, and project engineering control methods.
- The contractor will use the proper personal protective equipment and air monitoring procedures.
- The contractor will provide and maintain a Medical Surveillance Program for employees.
- The Storage/transport/disposal of ACM will comply with federal, state and local regulations.
- The contractor will maintain asbestos project and employee records for projects including, but not limited to, exposure monitoring records, medical records, training records, fit-test records, and project specific records, such as the amounts and types of asbestos abated, logbooks, waste transportation information and site identification information, etc.

Regulatory

- Title 29, Code of Federal Regulations (CFR), Occupational Safety and Health Administration (OSHA), Part 1910.1001 - General Industry Standards for Asbestos.
- Title 29, CFR, OSHA, Part 1926.1101 - Construction Standards for Asbestos.