

City of Torrington

CONTRACT DOCUMENTS
FOR

**“SANITARY SEWER REPAIR
AT EASTWOOD RD”
BID # SSR 027-101007**

TORRINGTON, CONNECTICUT

Mayor

Honorable Ryan J. Bingham

City Council

Rick E. Dalle Valle	Thomas C. Jerram
James F. McKenna	Andrew J. Slaiby
Marie P. Soliani	Drake L. Waldron

Public Works Director

Gerald C. Rollett, P.E.

City Engineer

Edward Fabbri, P.E.

September 2007



Prepared By

Torrington Engineering Department

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A. INVITATION TO BID

Sealed bids will be received at the office of the Purchasing Agent, Room 109A, City Hall, 140 Main Street, Torrington, Connecticut until 10:00 A.M., October 10, 2007 for the following:

**BID # SSR 027-101007
SANITARY SEWER REPAIR AT EASTWOOD RD**

The Contractor shall supply all necessary equipment, operators, and specified materials for the installation of approximately 240 lf of 8" pipe, 2 sanitary manholes, and associated miscellaneous work.

Bid Documents may be picked up at the office of the Purchasing Agent.

The City of Torrington reserves the right to reject any or all bids, to waive technicalities, to award the contract to a bidder other than the lowest bid, and to award the contract as it feels will best serve the public interest.

CITY OF TORRINGTON

Shirley King
PURCHASING AGENT

B. INFORMATION FOR BIDDERS

GENERAL DESCRIPTION OF THE PROJECT: The work is comprised of furnishing all equipment, labor, material, and superintendence and plant to perform all work necessary for the sanitary sewer replacement on Eastwood Rd, and miscellaneous associated work for the City of Torrington.

AREA OF WORK: The location of the work is on Eastwood Rd in Torrington, CT.

FORM OF BID: Each proposal shall be upon the BID FORM included herewith; no other form of bid shall be acceptable. Each bid item shall be stated in words and figures. In the event of any discrepancies between written words and figures in connection with any bid item, the words shall prevail. In executing the bid form, the bidder certifies that he has inspected the site of the work and that he is thoroughly familiar with the field conditions and the Contract Documents.

Each bid must be submitted in a sealed envelope bearing on the outside, the name of the bidder, his address, and the name of the project for which the bid is submitted. If forwarded by mail, the sealed envelope containing the bid must be enclosed in another envelope addressed as specified in the paragraph above.

Bid submittals must have the attached items:

- A. Form of Bid (Exhibit “A”)**
- B. Non-Collusion Affidavit of Prime Bidder form.**
- C. Bid security (Certificate as to Corporate Principal, Bid Bond and Surety Guaranty Form or Certified check)**
- D. Contractor’s Qualification Statement**
- E. Documentation supporting compliance of applicable safety and health acts**

SUBCONTRACTS: The bidder is specifically advised that any person, firm, or other party to whom it is proposed to award a subcontract under this contract must be acceptable to the Municipality.

QUALIFICATION OF BIDDERS: All contractors submitting a bid **shall** include a completed and notarized Contractors Qualification Statement Form. A blank form is included at the end of the Bid Forms. The City reserves the right to disqualify a contractor for reasons including, but not limited to any of the following:

- (1) For having defaulted on a previous contract.
- (2) For having failed, without acceptable justification, to complete a contract within the contract period.
- (3) For having failed to prosecute work in accordance with contract requirements.
- (4) For having performed contract work in an unsatisfactory manner.
- (5) For having failed to prosecute work continuously, diligently and cooperatively in an orderly sequence.
- (6) For having filed a sworn statement with the City which, in the judgement of the City, indicates that the Contractor does not have the required experience in the class of work that he bid on, does not have the proper labor and equipment to prosecute the work within the time allowed, or does not have sufficient capital and liquid assets to finance the work.

CITY BASED BIDDERS: The City of Torrington Purchasing Agent is authorized to offer city-based bidders that exceed the lowest bid by up to six percent (6%), the opportunity to match the lowest bid. A city-based bidder within the six-percent (6%) differential who agrees to accept the amount of the lowest bid will be awarded the bid unless more than one city-based bidder submits a bid not more than six percent (6%) higher than the low bid. When multiple city based bidders agree to accept the award of the bid at the amount of the low bid then the city based bidders will be invited to submit a new bid, not to exceed the low bid. The bid will be awarded to the lowest responsive, responsible bidder.

- a) City Based bidder shall mean a business with a legal principal place of business located within the City of Torrington. A business shall not be considered a city-based business unless evidence satisfactory to the purchasing agent has been submitted with the bid to establish that said business has a bona fide principal place of business within the City of Torrington. Such evidence may include evidence of ownership of or a long-term lease of real estate within the city from which the principal place of business is legally operated.

AWARD OF CONTRACT: The City of Torrington reserves the right to reject any and all bids, or to waive any technicality or informality in the bids received and to consider factors other than price, including, but not limited to, the responsiveness, experience and financial condition of the bidder and the quality of the materials proposed to be furnished. The City reserves the right to award the Contract to a bidder other than the lowest bid, and to award the contract as it feels will best serve the public interest. Upon determination of the successful bidder, the City shall submit a Notice of Award to the Contractor.

TIME FOR EXECUTING THE CONTRACT AND DAMAGES FOR FAILURE TO EXECUTE

- a) The contractor or a duly authorized representative of the firm or corporation has ten (10) calendar days, from the date of mailing of the Award Notice to him or his firm, to submit the required documents and execute the contract. Failure or neglect to do so shall constitute a breach of contract for which the City may cancel the notice of acceptance, award the bid to someone else, and/or require the entire project to be rebid, as well as sue for damages.
- b) The damages for such a breach of contract will include, but not be limited to, the loss of any awarding of work to him and other items whose accurate amount will be difficult or impossible to compute and all other damages recoverable at law and in equity.

BONDS AND INSURANCE: The successful bidder agrees to furnish a Performance Bond and a Labor and Material Payment Bond in the full amount of the Contract Price. All bonds shall be executed by the bidder as Principal and by a surety company qualified to do business under the laws of the State of Connecticut. The premiums for such bonds and insurance shall be paid by the Contractor. All insurers must have an **AM Best Rating of A-VII** or better.

TAXES: Omit all State and Federal taxes from the bid. The City of Torrington is exempt from the payment of taxes imposed by Federal government and/or the State of Connecticut.

TIME LIMITS AND SCHEDULING:

- Execution of Agreement - within 7 days of Notice of Award, unless otherwise notified by the City.
- Notice to Proceed - at the City’s discretion but generally within 30 days of the execution of the agreement unless otherwise agreed by both the City and Contractor and stated in the agreement. The first contract day shall be the day the Notice to Proceed was dated by the City.
- Start Work - within 14 calendar days of written Notice to Proceed.
- Contract Completion - within time limit as established by the Information for Bidders, “Time Limit of Completion”.

Within one week after the Contractor has been notified to proceed with the work, he shall be required to present a detailed schedule to show his approach to meet the time limits for the Contract. After his schedule has been reviewed and approved by the City, he shall make every effort to adhere to this outline of the work.

TIME LIMIT OF COMPLETION: All work must be substantially completed within thirty (30) consecutive calendar days after the Notice to Proceed is issued.

LIQUIDATED DAMAGES: For each additional day beyond the time specified in the time limit for completion of the project, the Contractor shall be assessed a sum of One Thousand (\$1,000.00) dollars as liquidated damages. Inclement weather conditions shall not be a reason for not completing all work within the specified time.

QUESTIONS REGARDING DRAWINGS AND DOCUMENTS

- a) In general, no answer will be given to prospective bidders in reply to an oral question if the question involves an interpretation of the intent or meaning of the drawings or contract documents or the equality or use of products or methods other than those definitely designated or described on the drawings or in the specifications. All information given to bidders other than by means of the drawings and contract documents, a Pre-Bid Conference (if required) or by Addenda, as described below, is given informally and shall not be used as the basis of a claim against the City or the Engineer. **(No pre-bid conference will be held for this project)**
- b) To receive consideration, such questions shall be submitted at the Pre-Bid Conference (if required) or in writing to the City's representative* at least seven days before the established date for receipt of bids. If the question involves the equality or use of products or methods, it must be accompanied by drawings, specifications, or other data in sufficient detail to enable the City's representative* to determine the equality or suitability of the product or method. In general, the City's representative* will neither approve nor disapprove particular products prior to the opening of the bids; such products will be considered when offered by the Contractor for incorporation into the work.

*For this purpose: **City Engineer
140 Main Street
Torrington, Connecticut 06790
860/489-2234
Fax: 860/489-2550**

- c) The City's representative* will arrange an Addenda which shall become a part of the contract, all questions received as above provided and his decision regarding each. At least five (5) days prior to the receipt of bids, he will send a copy of these Addenda to each of the prospective bidders who have taken out the drawings and contract documents.
- d) The Contractor agrees to use the products and methods designated or described in the specifications as amended by the Addenda.
- e) Non-receipt of said Addenda shall not excuse compliance with said Addenda. It is the responsibility of each Contractor to determine whether any addenda have been issued and, if so, whether he/she has received a copy of each.

No alleged "Verbal Interpretation" shall be held valid. All addenda issued during the bidding period shall supersede previous information.

BIDDERS TO INVESTIGATE

Bidders are required to submit their Proposals upon the following express conditions which shall apply to and become part of every bid received, via:

Bidders must satisfy themselves by personal examination of the location of the proposed work and by such other means as they may wish as to the actual conditions and requirements of the work.

INFORMATION NOT GUARANTEED

- a) All information given on the drawings or in the contract documents relating to test pits, subsurface conditions and existing pipes and other structures if from the best sources at present available to the City. All such information and the drawings of existing construction are furnished only for the information and convenience of bidders.
- b) It is agreed and understood that the City does not warrant or guarantee that the materials, pipes or other structures encountered during construction will be the same as those indicated by the logs of test pits or by the information given on the drawings or in the contract documents. The bidder must satisfy himself regarding the character, quantities and conditions of the various materials and the work to be done.
- c) It further is agreed and understood that the bidder or the contractor will not use any of the information made available to him or obtained in any examination made by him in any manner as a basis or ground of claim or demand of any nature, against the City or the Engineer, arising from or by reason of any variance which may exist between the information offered and the actual material or structures encountered during the construction work, except as may otherwise be provided for in the contract documents.

ITEMS, INDETERMINATE ITEMS AND COMPARISON OF BIDS

- a) The City promises to examine and consider thoroughly each Proposal submitted provided that the bidder, in return, promises, as set forth in the Proposal, that he will not withdraw his proposal while it is being considered and will execute the Contract Agreement and furnish the required Bonds and insurance certificates if his proposal is accepted.

- b) Bids will be compared on the basis of the quantities and unit or lump sum prices stated in the Proposal.
- c) In the event that there is a discrepancy between the prices written in words and those written in figures, the prices written in words shall govern.

QUANTITIES

- a) The quantities of items specified are approximate only as determined by the project engineer. They are included to provide the bidder with an estimate of materials required to complete the project and to provide a uniform basis for the comparison of bids.
- b) The City of Torrington shall reserve the right to increase or decrease the actual quantities required or delete them entirely, at the time the contract is awarded or at anytime thereafter, without prejudice towards the quoted bid price per unit, if to do so is in the City’s best interest.

TAXES: Omit all State and Federal taxes from the bid. The City of Torrington is exempt from the payment of taxes imposed by Federal government and/or the State of Connecticut.

BONDS AND INSURANCE: All bonds shall be executed by the bidder as Principal and by a surety company qualified to do business under the laws of the State of Connecticut. All bonds shall meet the approval of the City of Torrington. All bonds or Cashier’s Checks shall be made to the City of Torrington. Please note that all sureties must be listed on the most recent Department of Treasury’s Listing of Approved Sureties Circular 570. The Contractor shall pay the premiums for such bonds and insurance. All insurers must have an **AM Best Rating of A-VII** or better. Refer to other sections of these Contract Documents for insurance information requirements.

- a) **Surety Guaranty Form** – A “Surety Guaranty Form”, to be provided by a duly authorized Surety Company licensed to do business in the State of Connecticut, shall be submitted with the bid.
- b) **Bid Bond** - The bid proposal must be accompanied by a Bid Bond, which shall not be less than five percent (5%) of the total bid made out in favor of the City of Torrington and issued by a surety company acceptable to the City of Torrington. The Bid Bond shall be prepared on the forms acceptable to the City of Torrington. A Cashier’s Check, in the amount of not less than five percent (5%) of the proposal amount, payable to the City of Torrington will be accepted in lieu of a Bid Bond. Alternate bond forms will not be accepted. The City of Torrington will not be held liable for the accrual of interest on any check held by the City in conjunction with this bid. All checks or bid bonds will be returned to the unsuccessful bidders within 10 days after approval of the bid by the City Council. The Bid Bond or deposit check of the successful bidder will be held in escrow until such time that the City determines that the bidder has or will meet their obligations as stated by the bid. If the bidder fails or refuses within a reasonable time after due notice that the contract has been awarded to him, to execute the same, an amount representing a loss to the City by reason of such failure shall be retained and paid into the City treasury.
- c) **Performance and Labor and Materials Bond** - Simultaneously, with his delivery to the City of the executed contract, the bidder shall furnish Surety Bonds in an amount equal to one hundred percent (100%) of the contract price as security for faithful performance of the contract and for payment of all persons performing labor or supplying on this project under the Contract. An alternate bond in the form of a cashier’s check will be accepted.
- d) **Amendments to Bonds** - Any changes, modifications, amendments and/or alternations to any of the

required bonds shall be highlighted and the City shall be advised of same and consent to same prior to its acceptance of the bond as so changed, modified, amended and/or altered.

- e) **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.

ACCEPTANCE OF PROPOSALS AND THE EFFECT

The bidders shall be required to hold their bid prices firm for a minimum period of sixty (60) consecutive calendar days from the date of receipt of bids. It is anticipated that within thirty (30) days after the opening of the proposals, unless otherwise noted in the Invitation to Bid, the City will act upon them. The acceptance of a proposal will be a notice of acceptance, in writing, signed by a duly authorized representative of the City and no other act shall constitute the acceptance of a proposal. The acceptance of a proposal shall bind the successful bidder to execute the contract within the time and manner as set forth below, making him responsible and liable for failure to execute as prescribed. Upon signing of the contract by the bidder, the Bid Bonds for the remaining bidders will be released.

TIME FOR EXECUTING THE CONTRACT AND DAMAGES FOR FAILURE TO EXECUTE

- a) The contractor or a duly authorized representative of the firm or corporation has seven (7) calendar days, from the date of mailing of the Award Notice to him or his firm, to submit the required documents and execute the contract. Failure or neglect to do so shall constitute a breach of contract for which the City may cancel the notice of acceptance, award the bid to someone else, and/or require the entire project to be rebid, as well as sue for damages.
- b) The damages for such a breach of contract will include, but not be limited to, the loss of any awarding of work to him and other items whose accurate amount will be difficult or impossible to compute and all other damages recoverable at law and in equity.

INDEMNIFICATION

- a) To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the City, its officers, agents, servants and employees from and against all liability, claims, damages, losses and expenses including attorney's fees arising out of or resulting from the performance or lack of performance of the work, provided that any such liability, claim, damage, loss or expense is (a) attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property, including the loss of use resulting hereto from and (b) is caused in whole or in part by any negligent act or omission of the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them are liable.
- b) In any and all claims against the City, its officers, agents, servants and employees by any employee of the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for those acts any of them may be liable, the indemnification obligation under this sections to be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the Contractor or any Subcontractor under Worker's Compensation Acts, Disability Benefit Acts or other employee benefit acts.
- c) To the fullest extent permitted by law, prior to commencing work, the Contractor shall ensure that each subcontractor shall enter into an agreement under which it shall indemnify and hold harmless

the City, its officers, agents, servants and employees from and against all claims, damages, losses and expenses, including, but not limited to, attorney's fees, arising out of or resulting from the performance or lack of performance of the work provided that any such claim, damage, loss or expense (1) is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property including the loss of use resulting therefor, and (2) is caused in whole or in part by any negligent act or omission of the contractor, any subcontractor, or anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable. Such obligations shall not be construed to negate, abridge, or otherwise reduce any other right or obligation of indemnity, which would otherwise exist as to any party or person.

- d) In any and all claims against anyone indemnified hereunder by any employee of the subcontractor, or any sub-subcontractor, or anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation under this section shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the subcontractor or any sub-subcontractor under the Worker's Compensation Acts, Disability Benefit Acts or other employee benefits acts.

WAGE RATES

If applicable (If Contract Sum meets or exceeds the minimum amount of \$100,000.00)

- a) Wage rates, establishing the minimum rates, issued by the State of Connecticut Labor Department and Contractor's Wage Certification Form, a copy of which is attached, is made a part of this contract. The Contractor shall submit with his/her bid a completed, notarized Contractor's Wage Certification form.
- b) Pursuant to the State of Connecticut Public Act 93-392, the bidder shall submit a certified payroll record, utilizing the form furnished with the prevailing wage rates included in these specifications. The certified payroll shall be submitted on a weekly basis with a Statement of Compliance to the contracting agency included on the reverse side of the payroll form.

OCCUPATIONAL SAFETY AND HEALTH REGULATORY COMPLIANCE

Successful bidders must demonstrate compliance with the applicable safety and health acts including without limitation, 29CFR 1910.146 "Permit Required Confined Spaces". "Subpart P – Excavations" Part 1926 [Amended], Sections 1926.650, 651 and 652. **To demonstrate compliance, bidders must provide, with the bid response, documentation supporting compliance with the above standards.** This may include but is not limited to: Written company policy and procedure "Documentation" of Employee Training and Equipment Lists. 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 settlement, and any explanation(s) of such violations. The City may consider OSHA violation(s) over the past five years in determining the ability of the Contractor to comply with OSHA requirements and in determining whether contractor is a responsible bidder.

WORKERS COMPENSATION ACT - All contractors are required to conform to C.G.S. Section 31-286a, as amended, concerning workers compensation insurance requirements for contractors on Public Works projects.

LAWS AND REGULATIONS: The bidders' attention is directed to the fact that all applicable State laws, municipal ordinances, and the rules and regulations of all authorities having jurisdiction over the construction

of the project shall apply to the contract throughout, and they are considered in the contract the same as though they were written in full.

CORRECTIONS - Corrections, erasures or other changes in the bids must be explained or noted over the signature of the Bidder.

FACSIMILE BIDS - Facsimile bids will not be accepted by the City under any circumstance.

BID PROPOSAL

BIDS FOR "SANITARY SEWER REPAIR AT EASTWOOD RD", TORRINGTON, CONNECTICUT

TO: CITY OF TORRINGTON
ENGINEERING DEPARTMENT
140 MAIN STREET
TORRINGTON, CT. 06790

FROM: _____

Gentlemen:

The undersigned bidder, in compliance with the "Invitation for Bids" for the **"SANITARY SEWER REPAIR AT EASTWOOD RD"**, Torrington, Connecticut, having examined the plans and specifications, with related documents and the site of the proposed work and, being familiar with all the conditions surrounding the construction related to the proposed project, hereby proposes to furnish all labor, material and supplies and to construct the project in accordance with the Contract Documents, within the time set forth therein. The bidder understands that the Contract shall be awarded on the basis of the prices as shown herein and that the prices for the items will be used as the basis for payment during the construction of the project.

This bid was determined on the basis of the prices on the following pages (Exhibit "A"), is written as follows:

(Written Words) _____

(Written Figures) _____

Bidder acknowledges receipt of the following Addenda:

Addendum # _____ Date: _____

Addendum # _____ Date: _____

Addendum # _____ Date: _____

Signed this _____ day of _____, 200_____.

Firm Name: _____

Address: _____

Phone: _____ Fax: _____

Duly Authorized Signature

Title

EXHIBIT "A" BID FORM

**SANITARY SEWER REPAIR AT EASTWOOD RD
TORRINGTON, CONNECTICUT**

September 2007

Note: Bids shall include all applicable fees

<u>Item No.</u>	<u>Total Estimated Quantity</u>	<u>Description</u>	<u>Unit Price</u>	<u>Total Amount</u>
1.	L.S.	Mobilization & Demobilization, the lump sum price of _____ Dollars and _____ Cents	\$ _____	\$ _____
2.	L.S.	Maintenance and Protection of Traffic, the lump sum price of _____ Dollars and _____ Cents	\$ _____	\$ _____
3.	L.S.	Protection of Existing Utilities, the lump sum price of _____ Dollars and _____ Cents	\$ _____	\$ _____
4.	L.S.	Sewer Flow Control, the lump sum price of _____ Dollars and _____ Cents	\$ _____	\$ _____
5.	1	Utility Conflict Resolution, the price per each of _____ Dollars and _____ Cents	\$ _____	\$ _____
6.	240	8" Dia. PVC Sanitary Sewer, (SDR35), 0-8' Deep the price per lineal foot of _____ Dollars and _____ Cents	\$ _____	\$ _____
7.	2	Pre-cast Sanitary Manhole, 4' Diameter, Type A, 0-8' Deep price per each of _____ Dollars and _____ Cents	\$ _____	\$ _____

<u>Item No.</u>	<u>Total Estimated Quantity</u>	<u>Description</u>	<u>Unit Price</u>	<u>Total Amount</u>
8.	45	6" Dia. PVC House Service Lateral Including, Bends & Reconnection to Exist Lateral, the price per lineal foot of _____ Dollars and _____ Cents	\$ _____	\$ _____
9.	9	8" x 6" Dia. PVC Sanitary Sewer Wye, or T-Wye the price per each of _____ Dollars and _____ Cents	\$ _____	\$ _____
10.	650	Sawcut of Bituminous Concrete, the price per lineal foot of _____ Dollars and _____ Cents	\$ _____	\$ _____
11.	810	1.5" Bituminous Concrete Pavement Overlay, Class II complete in place, the price per square yard of _____ Dollars and _____ Cents	\$ _____	\$ _____
12.	111	Bituminous Concrete Pavement Repair, complete in place, the price per square yard of _____ Dollars and _____ Cents	\$ _____	\$ _____
13.	810	Milling of Bituminous Concrete Pavement, (0" to 2"), the price per square yard of _____ Dollars and _____ Cents	\$ _____	\$ _____
14.	225	Unsuitable Excavation - Trench, the price per cubic yard of _____ Dollars and _____ Cents	\$ _____	\$ _____

<u>Item No.</u>	<u>Total Estimated Quantity</u>	<u>Description</u>	<u>Unit Price</u>	<u>Total Amount</u>
15.	50	Bank or Crushed Gravel, the price per cubic yard of		
		_____ Dollars and		
		_____ Cents	\$ _____	\$ _____

Total Bid Amount of above items to be inserted on "Bid Proposal" form
END OF SECTION

NON-COLLUSION AFFIDAVIT OF PRIME BIDDER

STATE OF _____)
)SS
COUNTY OF _____)

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

1. He is _____ of _____, the Bidder that has submitted the attached Bid for **“SANITARY SEWER REPAIR AT EASTWOOD RD”**.
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 it’s officers, partners, Citys, agents, representatives, employees or parties of 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 Bidder, or to secure through any collusion, conspiracy, connivance or unlawful agreement any advantage against the City of Torrington 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, City’s, employees, or parties in interest, including this affiant.

(Signed) _____

(Title) _____

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

Notary Public

My Commission Expires _____

(Notary Seal)

BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we the undersigned:

_____ as Principal, and _____ as Surety are held and firmly bound unto _____ hereinafter called the "City", in the penal sum of _____ Dollars, (\$ _____) lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITIONS OF THIS OBLIGATION IS SUCH, that whereas the Principal has submitted the accompanying BID, dated _____, 20____, for **“SANITARY SEWER REPAIR AT EASTWOOD RD”**.

NOW THEREFORE, if the Principal shall not withdraw said Bid within the time period specified therein after the opening of the same, or within any extended time period agreed to by the Principal, Surety and City, or, if no period be specified, within thirty (30) days after the said opening, and shall within the period specified thereof, or if no period be specified, within seven (7) days after the prescribed forms are presented to him for signature, enter into a written Contract with the City in accordance with the Bid as accepted, and give bond with good and sufficient surety or sureties, as may be required, for the faithful performance and proper fulfillment of such Contract; then the above obligation shall be null and void and of no effect, otherwise to remain in full force or virtue.

Failure to comply with the aforementioned condition shall result in the forfeiture of this BID BOND as liquidated damages.

IN WITNESS WHEREOF, the above-bounded parties have executed this Instrument under their several seals this day of _____, 20____, the name and corporate seal of each corporate party being hereto affixed and these presents signed by its undersigned representative, pursuant to authority of its governing body.

No extension of time or other modification of the BID BOND shall be valid unless agreed to in writing by the parties to this Bond.

BID BOND CONT.

(Page 2 of 2)

In presence of:

Typed Name:

(Individual Principal) L.S.

(Business Address)

Typed Name:

(Individual Principal) L.S.

(Business Address)

Attest:

Typed Name:

(Corporate Principal)

(Business Address)

By: _____ (Affix
Corporate
Seal)

Attest:

Typed Name:

(Corporate Surety)

(Business Address)

By: _____ (Affix
Corporate
Seal)

Countersigned

By: _____

Attorney-in Fact, State of _____

Power-of Attorney for person signing for Surety Company must be attached to Bond.

SURETY GUARANTY FORM
(To Accompany Proposal)

KNOW ALL MEN BY THESE PRESENTS, that for and in consideration of the sum of \$1.00, lawful money of the United States, the receipt whereof is hereby acknowledged, paid the undersigned corporation, and for other valuable consideration, the _____, a corporation

(Name of Surety Company)

organized and existing under the laws of the State of _____ and licensed to do business in the State of Connecticut, certifies and agrees, that if the Contract for the **“SANITARY SEWER REPAIR AT EASTWOOD RD”** is awarded to the undersigned,

(Name of Bidder)

said Surety Company will execute the bond or bonds as required by the Contract Documents and will become Surety in the full amount of the Contract Price for the faithful performance of the Contract and for payment of all persons supplying labor or furnishing materials in connection therewith.

(Signature for Surety Company)

Title

Date

(To be accompanied by the usual proof of authority of officers of Surety Company to execute the same.)

CONTRACTOR'S QUALIFICATION STATEMENT

Contractor's Qualification Statement Forms: These forms must be completed and submitted for the project you are interested in bidding. Bidders that fail to provide all requested information, or who misrepresent such information, may have their bid rejected as non-responsive and, if they become the apparent successful bidder for a contract, may be deemed non-responsive as such. The City of Torrington may reject a contractor based on the contractor's performance record with regard to quality of work, timely completion, debarment by others, changed financial status, or other pertinent factors.

Confidentiality: The Contractor's Qualification Statement submitted to the City will be treated as confidential, for official City use only, and will not be open to public inspection, except as required by law. It is the City's position that pursuant to Connecticut General Statutes Section 1-210(b) (5) such documents are exempt from disclosure under the Connecticut Freedom of Information Act, and that the City will not disclose such documents in response to requests made under the Act.

The Undersigned certifies under oath the truth and corrections of all statements and all answers to questions made hereinafter.

SUBMITTED BY:

NAME: _____ [] CORPORATION
[] PARTNERSHIP
ADDRESS: _____ [] INDIVIDUAL
[] LLC
PRINCIPAL OFFICE: _____ [] OTHER _____

(NOTE: Attach separate sheets as required)

1. How many years has your organization been in business? _____

2. How many years has your organization been in business under its present business name? _____

If business was under a different name, give previous name. _____

3. If a Corporation, answer the following:

Date of Incorporation: _____ State of Incorporation: _____

President: _____

Vice President (s) _____

Secretary: _____

Treasurer: _____

4. If a Partnership, answer the following:

Date of Organization: _____ Type of Partnership: _____
(General/Limited/Association)

Name and address of all partners:

5. If other than a Corporation or Partnership, describe Organization and name Principals:

6. What percent of the work do you normally perform with your own forces? _____

List trades:

_____	_____	_____
_____	_____	_____
_____	_____	_____

7. Have you ever failed to complete any work awarded to you? If so, indicate when, where, and why:

8. Has any Officer or Partner of your Organization ever been an Officer or Partner of another Organization that failed to complete a construction contract? If so, state circumstances:

9. List major construction projects your Organization has under contract on this date:

PROJECT	OWNER:	CONTRACT	CONTRACT	ANTICIPATED
NAME:		AMOUNT:	DATE:	COMPLETION DATE:

10. List any bids for which awards are pending:

11. Have any time extensions ever been necessary? If so, please explain:

12. Have any penalties ever been imposed? If so, please explain:

13. Have any claims ever been filed? If so, please explain::

14. Attach a list of the plant and equipment available to properly and expeditiously perform the work:

15. Name of Bonding and Insurance Companies and Name, Telephone Number and Address of Agents:

16. The undersigned agrees to furnish, if requested by the City, if being considered for award of the project contract within 48 hours after the Bid Opening, a current Report of Independent Accountants on the specific forms found elsewhere in the contract bid documents.

17. List number of pending lawsuits: _____

18. List the number of lawsuits that your organization has been involved in over the past five years. _____
Dated at _____ this _____ day of _____, 2006.

NOTARIZATION: State of _____ County of _____

M _____ being duly sworn deposes and says that he (she) is the
_____ of _____ Contractor (s),

and that the answers to the foregoing questions and all statements therein contained are true and correct.

Subscribed and sworn before me this _____ day of _____, 2006.

Notary Public: _____

(Notary Seal)

My Commission Expires: _____

NOTICE OF AWARD OF CONTRACT

Description of Work: The work is comprised of furnishing all equipment, labor, material, and superintendence to perform all work necessary for the **“SANITARY SEWER REPAIR AT EASTWOOD RD”** and miscellaneous associated work for the City of Torrington.

TO:

The City has considered the "PROPOSAL" submitted by you for the above described work in response to its Advertisement for Bids dated:_____.

It has been determined that it is in the best interest of said City to accept your "PROPOSAL" in the amount of

(dollar amount in words) _____.

(dollar amount in numbers) _____.

you are hereby notified that your "PROPOSAL" has been accepted.

You are required by the INSTRUCTIONS TO BIDDERS to execute the CONTRACT within seven (7) days from the date of the delivery of this NOTICE to you unless otherwise notified by the City.

Dated this _____ day of _____ 2007.

CITY OF TORRINGTON, CONNECTICUT

City

By:

Title:

ACCEPTANCE OF NOTICE

Receipt of the above Notice of Award is hereby acknowledged this _____ day of

_____, 2007

Contractor

By:

Title:

REPORT OF INDEPENDENT ACCOUNTANTS

We have audited the accompanying prescribed contractor’s financial statement of

_____ (firm name) as of _____ (date) included herewithin. This financial statement is the responsibility of the company’s management. Our responsibility is to express an opinion on this financial statement based on our audit.

We conducted our audit in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statement is free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statement. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit of the financial statement provides a reasonable basis for our opinion.

In our opinion, the prescribed contractor’s financial statement referred to above presents fairly, in all material respects, the assets, liabilities and stockholders equity of _____ as of _____(date).

Our audit was conducted for the purpose of forming an opinion on the basic contractor’s financial statement taken as a whole. The information included in the detail schedules on page of the accompanying contractor’s financial statement is presented for purposes of additional analysis and is not a required part of the basic contractor’s financial statement. Such information has been subjected to the auditing procedures applied in the audit of the basic contractor’s financial statement, and in our opinion, is fairly stated in all material respects in relation to the basic contractor’s financial statement taken as a whole. We express no opinion or any other assurance on any of the other information included in the accompanying contractor’s financial statement.

This report is intended solely for the information and use of the City of Torrington for contractor qualification and is not intended to be and should not be used by anyone other than this specified party.

Date

CPA Signature

City/State

CPA Printed Name

CPA Reg. No.

CPA Reg. No.

THIS FORM CANNOT BE SUBSTITUTED

NOTE: Out of state C.P.A.’s must attach a copy of their latest license to this certification.

Fiscal Year Ending:

ASSETS

<i>Current Assets</i>		SUB-TOTAL	TOTAL
1. CASH:	On hand	<input type="text"/>	<input type="text"/>
	On deposit	<input type="text"/>	
	Total		
2. ACCOUNTS RECEIVABLE: (explain on page 9)	Construction	<input type="text"/>	<input type="text"/>
	Non-construction	<input type="text"/>	
	Total		
3. NOTES RECEIVABLE:	(due within 1 yr.)		<input type="text"/>
4. INVENTORY:			<input type="text"/>
5. MARKETABLE SECURITIES:			<input type="text"/>
6. PREPAID ITEMS:			<input type="text"/>
7. ACCRUED ITEMS:	Interest	<input type="text"/>	<input type="text"/>
	Other	<input type="text"/>	
	Total		
8. OTHER CURRENT ASSETS:			<input type="text"/>
<i>TOTAL CURRENT ASSETS</i>			<input type="text"/>
<i>Non-Current Assets</i>			
9. NOTES RECEIVABLE:	(after 1 yr.)		<input type="text"/>
10. CASH SURRENDER VALUE (CSV) LIFE INSURANCE: (Proceeds Payable to Corp.)			<input type="text"/>
11. CONSTRUCTION EQUIPMENT COST: (purchase price) (Less Total Accumulated Depreciation) Net		<input type="text"/>	<input type="text"/>
		<input type="text"/>	
12. OTHER FURNITURE, FIXTURES and EQUIPMENT (Less depreciation) Net		<input type="text"/>	<input type="text"/>
		<input type="text"/>	
13. REAL ESTATE: (Less depreciation) Net		<input type="text"/>	<input type="text"/>
		<input type="text"/>	
14. OTHER NON-CURRENT ASSETS:			<input type="text"/>
<i>TOTAL NON-CURRENT ASSETS</i>			<input type="text"/>
<i>TOTAL ASSETS</i>			<input type="text"/>

* You must attach a separate Audited or Reviewed Financial Statement as required under Part B, Item 5 of the Instructions.

LIABILITIES AND STOCKHOLDERS EQUITY

<i>Current Liabilities</i>	SUB-TOTAL	TOTAL
1. ACCOUNTS PAYABLE: (explain on page 9)		<input style="width: 100%;" type="text"/>
2. NOTES PAYABLE: (due within 1 yr.)	Equipment <input style="width: 100%;" type="text"/> Stockholders <input style="width: 100%;" type="text"/> Other <input style="width: 100%;" type="text"/> Total	<input style="width: 100%;" type="text"/>
3. TAXES AND ACCRUALS:		<input style="width: 100%;" type="text"/>
4. OTHER CURRENT LIABILITIES:		<input style="width: 100%;" type="text"/>
<i>TOTAL CURRENT LIABILITIES</i>		<input style="width: 100%;" type="text"/>
<i>Long Term Liabilities</i>		
5. NOTES PAYABLE: (after 1 yr.)	Equipment <input style="width: 100%;" type="text"/> Real Estate <input style="width: 100%;" type="text"/> Stockholders <input style="width: 100%;" type="text"/> Other <input style="width: 100%;" type="text"/> Total	<input style="width: 100%;" type="text"/>
6. TAXES: (after 1 yr.)		<input style="width: 100%;" type="text"/>
7. OTHER LONG TERM LIABILITIES:		<input style="width: 100%;" type="text"/>
<i>TOTAL LONG TERM LIABILITIES</i>		<input style="width: 100%;" type="text"/>
<i>Owner's / Stockholder's Equity</i>		
8. CAPITAL STOCK:	Common <input style="width: 100%;" type="text"/> Preferred <input style="width: 100%;" type="text"/> (Less Treasury) <input style="width: 100%;" type="text"/> Total	<input style="width: 100%;" type="text"/>
9. INDIVIDUAL OR PARTNERSHIP CAPITAL:		<input style="width: 100%;" type="text"/>
10. ADDITIONAL PAID-IN CAPITAL:		<input style="width: 100%;" type="text"/>
11. RETAINED EARNINGS:		<input style="width: 100%;" type="text"/>
<i>TOTAL OWNER'S / STOCKHOLDER'S EQUITY</i>		<input style="width: 100%;" type="text"/>
<i>TOTAL LIABILITIES & STOCKHOLDER'S EQUITY></i>		<input style="width: 100%;" type="text"/>

CONTRACT AGREEMENT

THIS AGREEMENT is by and between The City of Torrington (hereinafter called CITY) and

_____. (hereinafter called CONTRACTOR).

CITY and CONTRACTOR, in consideration of the mutual covenants hereinafter set forth, agree as follows:

ARTICLE 1 – WORK

- 1.01 **CONTRACTOR** shall complete all Work as specified or indicated in the Contract Documents. The Work is comprised of furnishing all equipment, labor, material, superintendence, and plant to perform all work necessary for “SANITARY SEWER REPAIR AT EASTWOOD RD” for the City of Torrington, as herein described. This may include, but not be limited to, installation or repair of sanitary sewers, installation or repair of storm sewers and drainage facilities, pavement repairs, and other miscellaneous work.

ARTICLE 2 – THE PROJECT

- 2.01 The Project for which the Work under the Contract Documents may be the whole or only a part is generally described as follows:

ARTICLE 3 – ENGINEER

- 3.01 The Project has been designed by the City of Torrington Engineering Department under direction of the City Engineer who hereinafter called ENGINEER and who is to act as the City ‘s representative, assume all duties and responsibilities, and have the rights and authority assigned to ENGINEER in the Contract Documents in connection with the completion of the Work in accordance with the Contract Documents.

ARTICLE 4 – CONTRACT TIMES

- 4.01 Time of the Essence
- A. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.
- 4.02 Dates for Substantial Completion and Final Payment
- B. The Work will be substantially completed as provided in paragraph 1.10 of the General Conditions, within **30** days after the date when the Contract Times commence to run, and completed and ready for final payment within **45** days after the date when the Contract Times commence to run.

4.03 Liquidated Damages

A. CONTRACTOR and CITY recognize that time is of the essence of this Agreement and that CITY will suffer financial loss if the Work is not completed within the times specified in paragraph 4.02 above, plus any extensions thereof allowed in the General Conditions. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by CITY if the Work is not completed on time. Accordingly, instead of requiring any such proof, CITY and CONTRACTOR agree that as liquidated damages for delay (but not as a penalty), CONTRACTOR shall pay CITY \$1,000.00 for each day that expires after the time specified in paragraph 4.02 for Substantial Completion until the work is substantially complete. After Substantial Completion, if CONTRACTOR shall neglect, refuse, or fail complete the remaining Work within the Contract Time or any proper extension thereof granted by CITY, CONTRACTOR shall pay CITY \$1,000.00 for each day that expires after the time specified in paragraph 4.02 for completion and readiness for final payment until the Work is completed and ready for final payment.

ARTICLE 5 – CONTRACT PRICE

5.01 CITY shall pay CONTRACTOR for completion of the Work in accordance with the Contract Documents an amount equal to the sum of the established Contract Unit Price for each separately identified item of Unit Price Work times the estimated quantity of that item as indicated below.

UNIT PRICE WORK

<u>Item No.</u>	<u>Total Estimated Quantity</u>	<u>Description</u>	<u>Unit Price</u>	<u>Total Amount</u>
-----------------	---------------------------------	--------------------	-------------------	---------------------

“See attached Exhibit A”

TOTAL OF ALL UNIT PRICES: _____
(use words)

(use figures)

Estimated quantities are not guaranteed, and determinations of actual quantities and classifications are to be made by ENGINEER as provided in paragraph 1.10 of the General Conditions.

ARTICLE 6 – CONTRACTOR’S REPRESENTATIONS

6.01 In order to induce CITY to enter into this Agreement CONTRACTOR makes the following representations:

A. CONTRACTOR has examined and carefully studied the Contract Documents and the other related data identified in the Bidding Documents.

- B. CONTRACTOR has visited the Site and become familiar with and is satisfied as to the general, local, and site conditions that may affect cost, progress, and performance of the work.
- C. CONTRACTOR is familiar with and is satisfied as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the work.
- D. CONTRACTOR has carefully studied all available: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities) which have been identified in the Supplementary Conditions as provided in the General Conditions and (2) reports and drawings of a Hazardous Environmental Condition, if any, at the Site which has been identified in the Supplementary Conditions.
- E. CONTRACTOR has obtained and carefully studied (or assumes responsibility for having done so) all additional or supplementary examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface, and Underground Facilities) at or contiguous to the Site which may affect cost, progress, or performance of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by CONTRACTOR, including applying the specific means, methods, techniques, sequences, and procedures of construction, if any, expressly required by the Contract Documents to be employed by CONTRACTOR, and safety precautions and programs incident thereto.
- F. CONTRACTOR does not consider that any further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract Documents.
- G. CONTRACTOR is aware of the general nature of work to be performed by CITY and others at the Site that relates to the Work as indicated in the Contract Documents.
- H. CONTRACTOR has correlated the information known to CONTRACTOR, information and observations obtained from visits to the Site, reports and drawings identified in the Contract Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Contract Documents.
- I. CONTRACTOR has given ENGINEER written notice of all conflicts, errors, ambiguities, or discrepancies that CONTRACTOR has discovered in the Contract Documents, and the written resolution thereof by ENGINEER is acceptable to CONTRACTOR.
- J. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

ARTICLE 7 – CONTRACT DOCUMENTS

7.01 Contents

A. The Contract Documents consist of the following:

- 1. This Agreement (pages 23 to 28 , inclusive);
- 2. Performance Bond
- 3. Payment Bond
- 4. General Conditions (pages GC-100 to GC-132, inclusive);
- 5. Specifications as listed in the table of contents of the Project Manual;
- 6. Addenda (numbers _____ to _____, inclusive);
- 7. Drawings consisting of the following sheets:

Name of Drawing	Sheet	Date
Proposed Sanitary Sewer Repair at Eastwood Rd	1 of 2	08/29/07
Typical Details Proposed Sanitary Sewer Repair at Eastwood Rd	2 of 2	0829/07

- 8. Exhibits to this Agreement (enumerated as follows):
 - a. Notice to Proceed (page _____, inclusive);
 - b. CONTRACTOR’S Bid Proposal (page _____, inclusive);
 - c. Exhibit “A” Bid Form (pages _____ to _____, inclusive);
 - d. Documentation submitted by CONTRACTOR prior to Notice of Award (pages _____ to _____, inclusive);
- 9. The following which may be delivered or issued on or after the Effective Date of the Agreement and are not attached hereto:
 - a. Written Amendments;
 - b. Work Change Directives;
 - c. Change Order(s).

B. The documents listed in paragraph 7.01A are attached to this Agreement (except as expressly noted otherwise above).

C. There are no Contract Documents other than those listed above in this Article 7.

- D. The Contract Documents may only be amended, modified, or supplemented as provided in the General Conditions.

ARTICLE 8 – MISCELLANEOUS

8.01 Terms

- A. Terms used in this Agreement will have the meanings indicated in the General Conditions.

8.02 Assignment of Contract

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

8.03 Successors and Assigns

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

8.04 Severability

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

IN WITNESS WHEREOF, CITY and CONTRACTOR have signed this Agreement in duplicate. One counterpart each has been delivered to CITY and CONTRACTOR. All portions of the Contract Documents have been signed or identified by CITY and CONTRACTOR or on their behalf.

This Agreement will be effective on _____, 20_____(which is the Effective Date of the Agreement).

OWNER:

CONTRACTOR:

By: _____

By: _____

(CORPORATE SEAL)

(CORPORATE SEAL)

Attest _____

Attest _____

Address for giving notices:

Address for giving notices:

City Engineer
City of Torrington
140 Main Street
Torrington, CT 06790

License No. _____
(Where applicable)
Agent for service of process: _____

(If CONTRACTOR is a corporation or a partnership,
attach evidence of authority to sign.)

Designated Representative:

Designated Representative:

Name: _____

Name: _____

Title: _____

Title: _____

Address: _____

Address: _____

Phone: _____

Phone: _____

Facsimile: _____

Facsimile: _____

CERTIFICATE AS TO CORPORATE PRINCIPAL

I, _____, certify that I am the _____

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 duly signed, sealed, and attested to for and in behalf of said corporation by authority of this governing body.

_____ Affix
Corporate
Seal
_____ Title

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS:

That _____, as Principal, (hereinafter called Contractor), and
_____, as Surety, (hereinafter called Surety) are

held and firmly bound unto **City of Torrington**, as Obligee, (hereinafter called City), for the use and benefit of claimants as herein below defined; in the amount of

_____ Dollars;
(Written Words)

(\$ _____),
(Written Figures)

for payment whereof Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, Contractor has by written agreement dated _____, 20____, entered into a Contract with City for the “**SANITARY SEWER REPAIR EASTWOOD RD**”, Torrington, Connecticut, which Contract is by reference made a part hereof, and is hereinafter referred to as the Contract.

NOW, THEREFORE, the condition of this obligation is such that, if the Contractor shall promptly and faithfully perform said Contract, including such remedial work as may be required under the guaranty during the period of guaranty, then this obligation shall be null and void, otherwise it shall remain in full force and effect.

The Surety hereby waives notice of any alteration or extension of time made by the City.

Whenever Contractor shall be, and declared by City to be, in default under the Contract, the City, having performed City's obligations thereunder, the Surety may promptly remedy the default or shall promptly:

- (1) Complete the Contract in accordance with its terms and conditions, by another Contractor acceptable to the City, said other Contractor to act as an agent for the Surety, or
- (2) Obtain a bid or bids for submission to the City for completing the Contract in accordance with its terms and conditions, and upon determination by the City and Surety of the lowest responsible bidder, arrange for a Contract between such Bidder and City and make available, as work progresses, (even though there should be a default or a succession of defaults under the Contract or Contracts of completion arranged under this paragraph), sufficient funds to pay the cost of completion less the balance of the Contract Price, but not exceeding, including other costs and damages for which the Surety may be liable hereunder, the amount set forth in the first paragraph hereof.

The terms "balance of the Contract Price" as used in this paragraph shall mean the total amount payable by the City to the Contractor under the Contract and any amendments thereto, less the amount properly paid by the City to the Contractor plus any amount improperly paid by the City to the Contractor for any work subsequently found to be incomplete, unacceptable or defective.

PERFORMANCE BOND CONT.

(Page 2 of 2)

IN WITNESS WHEREOF, the above-bounded parties have executed this instrument under their several seals,

this _____ day of _____, 200____, the name and corporate seal of each corporate party being hereto affixed and these presents signed by its undersigned representative, pursuant to authority of its governing body.

In the presence of:

Typed Name (Individual Principal) L.S.

(Business Address)

Typed Name (Individual Principal) L.S.

(Business Address)

Attest:

(Corporate Principal)

(Business Address)

By: _____
(Affix Corporate Seal)

Attest:

(Corporate Surety)

(Business Address)

By: _____
(Affix Corporate Seal)

Countersigned:

By: _____

* Attorney-in-Fact, State of

* Power of Attorney for persons signing for Surety Company must be attached to Bond.

LABOR AND MATERIAL PAYMENT BOND

Note: This Bond is issued simultaneously with another Bond in favor of the City conditioned for the full and faithful performance of the Contract.

KNOW ALL MEN BY THESE PRESENTS:

That _____, as Principal (hereinafter called Principal) and
_____, as Surety (hereinafter called Surety) are held and
firmly bound unto _____, as Obligee (hereinafter called
City) for the use and benefit of claimants as herein below defined; in the amount of

_____ Dollars
(Written Words)

(\$ _____),
(Written Figures)

for the payment whereof Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, Contractor has by written agreement dated _____, 200____, entered into a Contract with the City for the **“SANITARY SEWER REPAIR EASTWOOD RD”**, Torrington, Connecticut, which Contract is by reference made a part hereof, and is hereinafter referred to as the Contract.

NOW, THEREFORE, the condition of this obligation is such that, if the said Principal shall promptly pay for all materials furnished and labor supplied or performed in the prosecution of the work included in and under the aforesaid Contract, whether or not the material or labor enters into and becomes a component part of the real asset, then this obligation shall be null and void, otherwise it shall remain and be in full force and effect.

PROVIDED, that any alterations which may be made in the terms of the Contract or in the work to be done under it, or the giving by the Obligee of any extension of time for the performance of the Contract, or any other forbearance on the part of either the Obligee or the principal to the other shall not in any way release the Principal and Surety or either or any of them, their heirs, executors, administrators, successors or assigns from their liability hereunder, notice to the Surety of any such alterations, extension or forbearance being hereby warned.

Any party, whether a subcontractor or otherwise, who furnished materials or supplies or performs labor or services in the prosecution of the work under said Contract, and who is not paid therefore, may bring a suit on this bond in the name of the person suing, prosecute the same to a final judgment and have execution thereon for such sum as may be justly due.

Unless otherwise required by law, any suit under this Bond must be instituted before the expiration of one (1) year from the date on which the guaranty period under the Contract expires.

No right of action shall accrue on this Bond to or for the use of any person or corporation other than the City named herein or the heirs, executors, administrators or successors of City.

LABOR AND MATERIAL PAYMENT BOND CONT.

(Page 2 of 2)

IN WITNESS WHEREOF, the above-bounded parties have executed this instrument under there several seals,

this _____ day of _____, 200____, the name and corporate seal of each corporate party being hereto affixed and these presents signed by its undersigned representative, pursuant to authority of its governing body.

In the presence of:

Typed Name (Individual Principal) L.S.

(Business Address)

Typed Name (Individual Principal) L.S.

(Business Address)

Attest:

(Corporate Principal)

(Business Address)

By: _____
(Affix Corporate Seal)

Attest:

(Corporate Surety)

(Business Address)

By: _____
(Affix Corporate Seal)

Countersigned:

By: _____

* Attorney-in-Fact, State of

- Power of Attorney for persons signing for Surety Company must be attached to Bond.

NOTICE TO PROCEED

Contractor: _____

RE: "SANITARY SEWER REPAIR AT EASTWOOD RD"

Notice to Proceed

Gentlemen:

You are hereby notified to proceed with work on the above-referenced project within fourteen (14) calendar days of this Notice to Proceed. In addition, your representative(s) who will be in responsible charge of the work are required to attend a pre-construction meeting on _____ at _____. You are requested to prepare and present, at this pre-construction meeting, a detailed construction schedule. In addition, please bring a list of sub-contractors you intend to use on the project.

We look forward to working with you on this important project. If you have any questions, please call the City of Torrington Engineering Department at 860/489-2234.

Sincerely,

CITY OF TORRINGTON

Representative _____ Title _____ (City)
Date
(First Contract Day)

ACKNOWLEDGED:

Representative _____ Title _____ (Contractor)
Date

CERTIFICATE OF INSURANCE

This document certifies that the named Company has been issued the policies listed below, that these policies are written in accordance with State law and the Company's standard prices and endorsements, except as indicated below or as noted in the attachments hereto, which policies and endorsements will be made available to the City of Torrington, upon request, that they provide coverage and limits of liability shown with respect to the insurance indicated, that they are in force on this date and that all deductible amounts are as indicated below. CONTRACTOR shall require CONTRACTOR's insurance carrier to add CITY and CITY's professional consultants and their agents as additional insureds under CONTRACTOR's general liability insurance policy with respect to services performed by CONTRACTOR for CITY. CONTRACTOR's insurance carrier shall acknowledge that the protection so extended shall be primary protection for CITY and CITY's professional consultants and their agents. All insurer's must have an **AM Best Rating of "A-VII"** or better.

1. Name of Insured _____

2. Address of Insured _____

3. Location and Description of Work _____

Project No. (as Applicable) _____

Insurance Requirements:

See the sample "**ACORD CERTIFICATE OF LIABILITY INSURANCE**" herein provided in these documents, for the limits of coverage required for this contract.

Policy shall also include the following endorsements:

(1) Each Contractor's policy shall include a Contractual "HOLD HARMLESS" endorsement and coverage as follows:

"The Contractor (and his subcontractors) shall, during the performance of this work, take necessary precautions and place proper guards for the prevention of accidents; shall keep up all night suitable and sufficient lights and barricades; shall fully comply with the Occupational Safety and Health Act of 1970 and all other Federal, State and local Regulations including any and all amendments, revisions and additions thereto; and shall indemnify and save harmless the City, the Engineer, and their employees, officers and agents from any and all claims, suits, actions, fines, fees, damages and costs to which they may be put by reason of death or injury to all persons and/or for all property damage of another resulting from non-compliance, unskillfulness, willfulness, negligence or carelessness in the performance of the work, or in guarding or protecting the same or from any improper methods, materials, implements or appliances used in performance of the work, or by or on account of any direct or indirect act or omission of the Contractor (or his subcontractors) or his employees or agents, and whether or not active or concurrent negligent act or omission by the employees, officers, or agents of the City or the Engineer may have directly or indirectly caused or contributed thereto".

(2) Manufacturers' and Contractors' Liability shall further include an endorsement stating:

"This policy shall cover owned, hired and non-owned equipment".

"Coverage for completed operations for both personal injury and property damage extended for the period of guaranty shall be covered under this policy. Manufacturers' and Contractors' Liability coverage includes liability for personal injury or damages as a result of blasting, explosion, collapse of buildings or structures, and damage to underground installations".

(3) Automotive Liability Insurance shall include an endorsement as follows:

"This policy shall cover owned, hired and non-owned vehicles".

(4) City's Protective Liability shall include an endorsement as follows:

"The Contractor and the Insurance Company waive governmental immunity as a defense and will not use the defense of governmental immunity in the adjustment of claims or the defense of any suit, action or claim brought against the City".

(5) ALL POLICIES shall include:

(a) endorsement of the work description, contract name, number and location; b) an endorsement that the Insurance Company will give at least thirty (30) days written notice to the City and the Engineer prior to any modification or cancellation of any such policy; (c) an endorsement that the Contractor will be responsible for the payment of all premiums and/ or charges.

- b. Proof of Insurance: Before commencing any work under this Contract, the Contractor shall submit copies of the Certificate/Certificates of Insurance or binders to the City, the Engineer and any others as may be specified in the Special Conditions under "INSURANCE", evidencing that all insurance as required herein is in force. The policies shall be identified by title, policy number, effective date, expiration date, coverage's and limits of liability. Required or verbatim quotes of endorsements as required above or by the Special Conditions, and any non-standard exclusion endorsements for any required policies shall be attached to or be a part of the Certificate/Certificates of Insurance.

The Contractor must either include coverage for his subcontractors in his policy or submit similar Certificates of Insurance from each of his subcontractors before their work commences. Each subcontractor must be covered by insurance of the same character and in the same amounts as the Contractor unless the Contractor and the Engineer agree that a reduced coverage is adequate because of the nature of the particular work.

During the course of construction under this Contract, whenever there is a lapse in the insurance requirements as stated herein through cancellation, expiration, failure to renew, or any other cause, the City shall order the cessation of all construction activities until such time as the insurance requirements are complied with. The Contractor shall have no claim or claims whatever against the City, the Engineer or other parties due to any delays caused thereby, nor shall it extend the completion time of the Contract.

- c. Approval/Disapproval of Insurance: Upon receipt of the Certificate(s) of Insurance or binders, the City will, in writing, identify the policies and indicate its approval or disapproval. New policies from other companies shall be provided in place of those disapproved. Such insurance shall only be carried with financially responsible insurance companies, licensed in the State and approved by the City. All policies shall be kept in force until the Contractor's work is accepted by the City (unless otherwise specified). Insurance policies (covering all operations under this Contract or, if so noted, for extended operations) which expire before the Contractor's work is accepted by the City (or where noted for extended operations, through the period of guaranty) shall be renewed and evidence of same submitted to the City for its approval.

1. Unless requested otherwise by the City, if the City is the State of Connecticut or a Municipality, it is agreed that the above named insurance company waives governmental immunity as a defense and will not use the defense of governmental immunity in the adjustment of claims or in the defense of any suit brought against the City, and it is further agreed that the company will bill all premiums and audit charges earned under the protective liability policy to the above named contractor.

2. The Contractor shall at all times indemnify and save harmless the City, and their respective officers, agents, and employees, arising out of any and all claims, damages, losses, litigation, expenses, counsel fees, and compensation arising out of injuries (including death) sustained by or alleged to have been sustained by the officers, agents and employees of said City, or of the Contractor, his subcontractors, or material men, or from injuries (including death) sustained by or alleged to have been sustained by the public, any or all persons on or near the work, or be any other person or property, real or personal (including property of said City) caused in whole or in part by the acts, omissions, or neglect of the contractor including but not limited to any neglect in safeguarding the work or through the use of unacceptable materials in constructing the work of the contractor, any subcontractor, material man, or anyone directly employed by them or any of them while engaged in the performance of the contract, including the elapse time from the date ordered to start work or the actual start whichever occurs first until the completion, as described in the contract documents and certified by the City. Such insurance as is herein certified applies to all operations of the insured in connection with the work herein described at the locations stated.

In the event of any restrictive amendment to, any change in or cancellation of any one or more of said policies, the (Insurance Company) will give not less than thirty days written notice of such amendment, change, or cancellation to the party to whom the certificate is issued.

Dated this _____ day of _____, 200_____.

Ins. Co. _____ Auth. Agent _____

Address _____ Address _____

Original and two copies to be submitted to the City and another copy to be furnished to the named insured.

ACORD™ CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
03/30/2004

PRODUCER FAX	THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.
INSURED	INSURERS AFFORDING COVERAGE
	INSURER A: Insurance Carrier(s) with AM Best's rating
	INSURER B: of "A- VII" or better
	INSURER C:
	INSURER D:
	INSURER E:

COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR ADD'L LTR INSRD	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS
X X	GENERAL LIABILITY <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS MADE <input checked="" type="checkbox"/> OCCUR	XXXXXXXXXXXXXX	XX/XX/XXXX	XX/XX/XXXX	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 10,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COM/POP AGG \$ 2,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC				
	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> NON-OWNED AUTOS	XXXXXXXXXXXXXX	XX/XX/XXXX	XX/XX/XXXX	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
	GARAGE LIABILITY <input type="checkbox"/> ANY AUTO				AUTO ONLY - EA ACCIDENT \$ OTHER THAN AUTO ONLY: EA ACC \$ AGG \$
	EXCESS/UMBRELLA LIABILITY <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS MADE <input type="checkbox"/> DEDUCTIBLE <input type="checkbox"/> RETENTION \$	XXXXXXXXXXXXXX	XX/XX/XXXX	XX/XX/XXXX	EACH OCCURRENCE \$ 1,000,000 AGGREGATE \$ 1,000,000 \$ \$ \$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? If yes, describe under SPECIAL PROVISIONS below	XXXXXXXXXXXXXX	XX/XX/XXXX	XX/XX/XXXX	WC STATU-TORY LIMITS OTH-ER E.L. EACH ACCIDENT \$ 100,000 E.L. DISEASE - EA EMPLOYEE \$ 100,000 E.L. DISEASE - POLICY LIMIT \$ 500,000
	OTHER				

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS

Project: (Project name or description)
City of Torrington is additional insured for General Liability with respect to this project, coverage form is attached. The contractor and their General Liability insurer(s) shall waive all rights of subrogation against the City of Torrington arising from work performed on this project.

CERTIFICATE HOLDER

** SAMPLE CERTIFICATE FOR
CONTRACTS UNDER \$1,000,000 **

City of Torrington
140 Main Street
Torrington, CT 06790

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO MAIL SUCH NOTICE SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE

IMPORTANT

If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

DISCLAIMER

The Certificate of Insurance on the reverse side of this form does not constitute a contract between the issuing insurer(s), authorized representative or producer, and the certificate holder, nor does it affirmatively or negatively amend, extend or alter the coverage afforded by the policies listed thereon.

CONTRACTOR'S AFFIDAVIT

STATE OF: _____

COUNTY OF: _____

Before me, the undersigned, a

(Notary Public, Justice of the Peace or Alderman)

in and for County and State, personally appeared

(Individual, Partner or Duly Authorized representative of Corporate Contractor)

who, being duly sworn according to law, deposes and says that all labor, material and outstanding claims and indebtedness of whatever nature arising out of the performance of the Contract of the

_____ with
(City)

(Contractor)

have been paid in full.

(Individual, Partner, or Duly Authorized Representative of Corporate Contractor)

Sworn to and subscribed before me this _____ day of _____, 200_____.

(Notary Public)

(My Commission Expires)

(Notary Seal)

STATEMENT OF SURETY COMPANY

IN ACCORDANCE with the provisions of the CONTRACT dated _____

between the _____
(City)

and _____
(Contractor)

the _____, on the Material and
Labor Payment Bond of _____
(Contractor)

after a careful examination of the books and records of said CONTRACTOR or after a receipt of an affidavit from Contractor, which examination of affidavit satisfies SURETY that all claims for labor and materials have been satisfactorily settled, hereby approved of the final payment of the said _____, CONTRACTOR, and by these presents witnesseth that payment to the CONTRACTOR of the final estimates shall not relieve SURETY of any of it's obligations to _____ as set forth in the said SURETY COMPANY'S BOND.

(City)

IN WITNESS WHEREOF, said SURETY has hereunto set its hand and seal this _____ day of _____, 200__.

ATTEST:

(SEAL) By _____
(President)

NOTE: This statement, if executed by any person other than the President or Vice-President of the Company, must be accompanied by a certificate of even date showing authority conferred upon the person so signing to execute such instruments on behalf of the company represented.

CERTIFICATE OF WAIVER AND RELEASE OF LIEN

TO ALL WHOM TO THESE PRESENTS SHALL COME OR MAY CONCERN, KNOW THAT

(Subcontractor Name/Address)

a corporation/partnership, business organized under the laws of the State of Connecticut, in consideration of the

sum of: _____

(Written Words)

(\$ _____)

(Amount in Figures)

received from _____

(General Contractor Name/Address)

receipt whereof is hereby acknowledged, hereby waives and relinquishes for itself, its heirs, executors, administrators, successors and assigns, all liens or right to claim a lien for work done and in place as of the date of this Release of the project commonly known as

(Name of Project)

(Name of Subcontractor)

hereby indemnifies the _____ against any and all claims for work performance and/or materials supplied by it/him/her/us under the above mentioned CONTRACT.

IN WITNESS WHEREOF, _____

(Subcontractor Name/Address)

has caused this Waiver and Release of Lien to be executed by its duly authorized officer this _____ day of _____, 200____.

Executed and delivered in the presence of:

Witness

By: _____

Witness

Certificate of Waiver and Release of Lien (Cont.)

State of Connecticut _____) ss: _____

County of _____)

_____ duly authorized, have duly sworn,

deposes and say she/she is _____ of _____
(Title) (Name of Subcontractor)

and that the statements herein contained are true and correct.

Subscribed and sworn to before me this _____ day of _____, 200__.

(Notary Public)

My Commission Expires

(Notary Seal)

**CONSENT OF
SURETY COMPANY
TO FINAL PAYMENT**

- OWNER
- ARCHITECT
- CONTRACTOR
- SURETY
- OTHER

PROJECT:
(name, address)

TO (Owner)

ARCHITECT'S PROJECT NO:

CONTRACT FOR:

CONTRACT DATE:

CONTRACTOR:

In accordance with the provisions of the Contract between the City of Torrington and the Contractor as indicated above, the
(here insert name and address of Surety Company)

SURETY COMPANY

on bond of (here insert name and address of Contractor)

CONTRACTOR

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

CITY

as set forth in the said Surety Company's bond.

IN WITNESS WHEREOF,
the Surety Company has hereunto set its hand this _____ day of _____ 200 _____.

Surety Company

Signature of Authorized Representative

Attest:
(Seal):

Title

D. GENERAL CONDITIONS

1.0	<u>GENERAL CONDITIONS</u>
1.1	Introduction
1.2	Definitions
1.3	Superintendence by Contractor
1.4	Subcontracts
1.5	Other Contracts
1.6	Fitting and Coordination of Work
1.7	Mutual Responsibility of Contractor
1.8	Progress Schedule
1.9	Payments to Contractor
1.10	Changes in the Work
1.11	Claims for Extra Cost
1.12	Termination; Delays and Extensions; and Liquidated Damages
1.13	Assignment of Novation
1.14	Engineer's Authority
1.15	Specifications and Contract Drawings
1.16	Shop Drawings
1.17	Requests for Supplementary Information
1.18	Materials and Workmanship
1.19	Samples, Certificates, and Tests
1.20	Permits and Codes
1.21	Care of Work
1.22	Accident Prevention
1.23	Sanitary Regulations
1.24	Use of Premises
1.25	Removal of Debris, Cleaning, Etc.

- 1.26 Inspection/Acceptance of the Work
- 1.27 Review by City
- 1.28 Final Inspection
- 1.29 Deductions for Uncorrected Work
- 1.30 Insurance
- 1.31 Patents
- 1.32 Warranty of Title
- 1.33 General Guaranty
- 1.34 Arbitration and Litigation
- 1.35 Risk of Loss
- 1.36 Required Provisions Deemed Inserted
- 1.37 Corrections
- 1.38 Safety Provisions
- 1.39 Working Hours, Night Work, Saturdays, Sundays and Holidays
- 1.40 Access to Site
- 1.41 Weather Conditions/Work in Freezing Weather
- 1.42 Intoxicating Liquors
- 1.43 Indemnity Clause
- 1.44 Non-Federal Labor-Standards Provisions
- 1.45 Prevailing Wage Rates
- 1.46 Maintenance
- 1.47 Occupational Safety and Health Standards

1.0 GENERAL CONDITIONS

1.1 Introduction:

This volume contains specifications for the construction of public improvements for acceptance by the City of Torrington, Public Works Department. The contents of this volume, insofar as they may apply, and except for such portions as clearly indicate otherwise, and/or except as any portion hereof may have been specifically altered, amended, or amplified by one of the contract documents for a particular contract, will have been made and will be considered as part of the contract documents, and the requirements hereof will be requirements of the contract between the City of Torrington (herein referred to as "City" or "Owner") and the Contractor, as provided in the separate document known as the Contract Agreement, which evidences that a contract has been made between the City and the Contractor to the same extent and force as if the contents of this volume had been attached to and made part of said formal documentary agreement.

Portions of the text of this volume descriptive of work and materials may be used to describe the usual requirements and practices of the City of Torrington relative to the construction of public improvements, particularly for specifying what is to be done by some person or party who may be constructing said public improvements under the supervision of or under a permit issued by and paid by the City; as, for example, a licensed drain layer operating under a house connection permit, or a real estate developer who undertakes to construct public improvements within a tract being developed by him under an agreement with the City which provides for inspection thereof by the City.

Portions of this volume may be referred to and used, if so agreed by the parties concerned, to describe or specify work and materials to be performed or furnished by a Contractor and/or developer for the construction of any item not contained in these specifications. The Contractor will reference Form 816, dated 2004 (or latest edition), the "State of Connecticut Department of Transportation Standard Specifications for Roads, Bridges and Incidental Construction", as amended, or request Public Works specifications to supplement Form 816. But the extent to which portions of this text shall apply in any case shall be limited as may have been provided in the agreement between the said parties. No provision of these Specifications which provides that the City of Torrington, or any agent thereof, will make payment to, or perform any service for, the Contractor will be binding upon the City when this text is used as part of any contract between outside parties to which the City is not a principal party.

Certain provisions of this text provide that the City of Torrington will make payments to the Contractor, or will perform certain services or assume certain risks, or make deductions from sums due or to become due the Contractor, etc., which provisions are intended to apply only when this text is part of a contract between the City of Torrington and a construction contractor employed directly by the City. Such provisions shall not in any case be interpreted as providing that the City of Torrington will make any payment to, render any service, or assume any risk for any party other than the Contractor directly employed by the City and named in a Contract Agreement between the said City and said Contractor.

If any provision herein as to payments to be made by, services to be performed by, or risks to be assumed by the City of Torrington shall have been amended, modified, limited or altered by any provision of the plans, Information for Bidders, Contract or Special Provisions prepared for any particular work, such amendment, modification, etc. shall govern and control irrespective of any contrary provision contained in this printed document.

When this text is used to describe or specify work and materials in relation to any agreement between parties wherein the City of Torrington is not one of the contracting parties, then the provisions herein with respect to payments shall apply only to the extent which may have been clearly agreed upon by those outside parties.

Because this text has been written to serve the various purposes described in the previous section, some things have been described in broad, general terms, and this text must be read and interpreted with that in mind.

1.2 Definitions:

The following words, terms, phrases, initials and abbreviations, where used in this volume and in the other related contract documents (Drawing, Information for Bidders, Proposal, Contract Agreement and Special Provisions, etc.) shall, insofar as the text admits and subject to the clear intent of the particular use, be read and held to have the meanings indicated by the following definitions and directions:

ADDENDA	A supplement to the Information for Bidders, Proposal or Special Provisions, issued by the Engineer to prospective bidders to amend original bidding information.
AS DIRECTED AS ORDERED	Read as if full text were "...as directed by the Engineer..." or "...as ordered by the Engineer..."
AS INDICATED	Read as though full text were "...as indicated by contract documents..." and/or "...as shown by drawings and/or described in Specifications, Special Provisions or other contract document..."
AS NEEDED AS REQUIRED	Read as if full text were "... as needed (or required) for the fulfillment of the intent of the drawings, Specifications, project, etc..." or "...as needed (or required) to complete or execute the proposed work in good order..."
ASTM	When followed by a number or numbers, refers to published specifications of the American Society for Testing Materials and to the particular specification indicated by the accompanying numbers or designation. In certain cases, the published specification of a given number refers in part to some other specification in the same series, by number, and such second reference shall be understood as included within the original reference contained herein.
BIDDER	The person, persons, firm or corporation, or the combination of them, who made or contemplates making a proposal to the City to furnish materials or equipment, or perform the work contemplated by the proposed or existing Contract in question, and more specifically to the particular Bidder whose proposal has been accepted.
BIDDERS	The collective group of bidders or prospective bidders for a given contract.
CONSTRUCTION OF THE WORK	In broad use, this will include all of the furnishing and delivery of materials, equipment, etc., a building of sewers, structures and appurtenances to be furnished, delivered, performed or built by the Contractor under the Contract, or certain narrower uses will refer only to the building of physical things such as sewers, drains, structures and their appurtenances.
CONTRACT	The undertaking or agreement between the City and the Contractor to furnish and deliver certain materials, perform certain services and build certain sewers or structures and, more specifically where the context requires, the document described herein as the "CONTRACT AGREEMENT".

CONTRACT
AGREEMENT

The document signed by representatives of the City and the Contractor as written evidence of the fact that a contract has been entered into by them and setting down in written form certain of the terms and conditions thereof; being one portion of the whole group of documents comprising the description and written statement of the whole contractual undertaking.

CONTRACT
DOCUMENTS

The group of documents describing the terms and conditions of the contractual undertaking, and including the documents named in the Information for Bidders, standard practices of the City, and such other drawings as may be made part of the Contract, together with the Information for Bidders on which the Bid Proposal was based and addenda thereto, if any, issued to prospective bidders, the Bid Proposal made by the Contractor to the Board of Councilmen which forms the price basis of the Contract, and Special Provisions prepared for and descriptive of the work contemplated herein and furnished to bidders, the Contract Agreement, Specifications, Surety Bond, and other documents, if any, made part of Contract. But, in general, mere correspondence or conversation between agents of the City and the Contractor will not be considered to be "contract documents" as that terms is used herein.

CONTRACTOR

The person, persons, corporation, party or parties contracting with the City of Torrington as party of the second part to the Contract to furnish or deliver materials, construct certain work or perform certain services as contemplated by the Contract, or any of them, including his, her, their or its employees, agents, servants, heirs, successors and assigns, together with any and all subcontractors employed by said principal Contractor, suppliers of materials and their agents when on or near the site or sites of the work for purposes arising out of or in connection with any incident of the Contract.

For convenience, the Contractor, as above, will be referred to by the third person singular pronouns, (he, his, or him) irrespective to the sex, or plural or corporate nature of the Contractor.

DIRECTED

See "As Directed".

DRAWINGS

The plans or drawings made part of the contract documents as illustrating the proposed work or project and the requirements of the City with respect to the Contract, together with such supplemental or additional drawings by the Engineer as may be needed from time to time to illustrate particular requirements in more detail. "Drawings" may also be referred to as "plans" or similar works. Drawings will consist of two general groups: (a) drawings prepared for and illustrating the particular project, and (b) drawings prepared to illustrate the customary practices and requirements of the City, typical details of conventional structures or portions of the work, etc.

In general, where not otherwise indicated or required by the text, the work "drawings" will usually refer to and only include those described in the Information for Bidders. Drawings prepared for or submitted by the Contractor, or by suppliers of equipment or materials, will be so described when such drawings are meant.

The work "plan" or "plans" may be read as synonymous with the work "drawing" or "drawings" where the context so requires.

ENGINEER	The Engineer of the City, acting according to the duties assigned to him by the City Charter and the Director of Public Works of the City, and also the representatives of said Engineer, when acting within and limited by the particular duties and powers assigned to each. See also "Inspector".
FORM 816	<p>The term "Form 816" means the "State of Connecticut Department of Transportation Standard Specifications for Roads, Bridges and Incidental Construction"- Form816 dated 2004 and supplements thereto. Wherever the term "State" is used in the Form 816 it shall be assumed to mean "City".</p> <p>Definitions of terms and permissible abbreviations listed in Form 816 Section 1.01, shall also apply unless superseded by definitions listed under GENERAL CONDITIONS.</p>
HE, HIS, HIM	These pronouns may be used with reference to the Contractor or any person or party acting under or for the Contractor, irrespective of the sex, plurality, or corporate character of the Contractor, where the context indicates that the Contractor is referred to. Elsewhere these pronouns will be used in the usual manner.
INDICATED	See definition phrase " As Indicated" previously described.
INFORMATION FOR BIDDERS	<p>One of the contract documents prepared by the Engineer and issued to prospective bidders, giving them information relative to the proposed contract and work contemplated therein, and giving directions for preparing and submitting proposals for the work, being attached to and issued with the Bid Proposal form.</p> <p>Where the context admits, the Information for Bidders will also include any and all addenda issued by the Engineer to prospective bidders, in, writing, between the preparation of the original text of the Information for Bidders and the time for receiving and opening proposals, if such addenda are intended to amend or amplify the original Information for Bidders. But mere oral statements by City officers and employees, or correspondence not intended to be addressed to all prospective bidders as "addenda" and not intended to amend the original Information for Bidders will not be considered as part of the Information for Bidders.</p>
INSPECTOR	<p>An employee or agent of the City assigned by the Engineer to examine and test materials and work proposed to be furnished under the Contract, to observe the construction of the project, or any part thereof, to assist the Contractor in the interpretation of drawings, specifications and other contract documents, to make measurements for and to keep records for the Engineer, and to report to the Engineer on the performance of the Contractor relative to the work, all as and only as instructed by the Engineer.</p> <p>No inspector shall be deemed authorized to receive or accept notices required to be given to the Engineer or the City, nor to waive any requirement of any contract document, nor to modify or alter or amend any order of the Engineer.</p> <p>Inspectors shall not be expected to act as assistants to, or foremen, clerks, or the like, for the Contractor and his staff. If any inspector at any time does perform any duty of or for the Contractor, it must be agreed that such act by the inspector is a voluntary act, without compensation and without liability.</p>

MAINTENANCE PERIOD	<p>The period or periods during which the Contractor is required to maintain and correct defects in the work or any part thereof.</p> <p>As applied to any specific portion of the work, the "maintenance period" may be understood to include the whole period between the time of construction of that part of the work, or the delivery of that part of the materials, and the final end of the final maintenance period, including the period between the time when any particular portion of the work or materials is completed and the expiration of one year next following final completion of all construction or delivery of work and materials.</p>
NEEDED/NECESSARY	<p>The phrases "...as needed..." and/or "...as necessary..." will, in general, mean as needed or as reasonably necessary and convenient for the full performance of the work, etc., in accordance with the requirements of the Contract and related plans, Specifications, Special Provisions, etc., and/or as required by law or ordinance, or by the conditions of a permit issued by a proper public body or officer.</p>
ORDERED	<p>See "As Ordered".</p>
PERFORMANCE BOND	<p>A surety bond furnished by the Contractor to secure fulfillment of the contract on his part. Also called "surety bond " and surety thereon the "surety".</p>
PLANS	<p>Sometimes used in lieu of "Drawings" or "Contract Drawings".</p>
PROJECT	<p>The public improvement of which the work or material to be built or furnished under the Contract is an essential part. May also be used as synonym for "work" in text of contract documents.</p>
PROPOSAL OR BID PROPOSAL	<p>The proposal or bid submitted by the bidder, who may have subsequently become the Contractor, to the Board of Councilmen. Where used relative to incidents occurring before the award of any contract thereon, the word "Proposal" will refer to the proposal form as submitted by the particular bidder in question. Where used relative to any incident arising or likely to arise after the award of the contract, the word "Proposal" will refer to the specific proposal or bid submitted by the bidder who has then become the Contractor, and upon which proposal the award of the contract was made by the Board of Councilmen. If a proposal has been amended by agreement between the City and the bidder, the word "Proposal" shall apply to the proposal as amended. If any bid price was omitted and a price supplied therein by the Board of Councilmen, the Engineer, or other City agent as provided in the Information for Bidders, the word "Proposal" shall mean the original proposal amended by the insertion of that omitted price or prices, or item or items.</p>
PUBLIC WORKS DIRECTOR	<p>The Director of Public Works or, in his absence or inability to act, his assistant, or the authorized agent thereof, limited as to authority by his duties and powers assigned to said representative agent in the particular instance.</p>
REQUIRED	<p>See "As Required".</p>

RIGHT-OF-WAY RIGHTS-OF-WAY	Line or strip of land along which the City owns the right to construct, maintain, etc., sewer and rights possessed by the City. In case of sewer or structure to be located in a public street, rights will usually be limited to lines of the public highway and to such portion thereof as City or Street or Highway authorities may limit same. Where located through private land, rights-of-way will many times comprise of two strips, superimposed one on the other, a permanent easement possessed by the City, within which it may build, maintain, operate, repair, etc., the sewer, and a wider strip acquired for and limited to use for construction purposes (i.e. operation of construction forces and equipment, temporary storage of supplies, spoil banks, etc.) and only during the period of actual construction of the sewer or structure at that point. All rights-of-way limited by rights possessed by City therein.
RIGHT-OF- ACCESS OR ACCESS DRIVEWAY	Passageway or right to pass which may be used for getting to and from work, or sewer right-of-way proper. Sometimes access right-of-way and access driveways may be used only in common with others. All rights-of-access limited by rights possessed by the City herein.
SERVICES	All that is usually comprehended in the term, so far as such meanings apply, and in particular to the assumption of liabilities on the part of the Contractor, furnishing insurance and other securities, keeping of records, furnishing supplemental drawings, tests, schedules, data, barricades, signs and other duties described in the Contract and Specifications.
SPECIAL PROVISIONS	Written or printed text or texts prepared and issued to bidders to describe or explain particular phases, features, or requirements for a particular contract or project, being in general, supplemental specifications and the standard forms or texts usually used by the City for the Information for Bidders or Contract Agreement. Note that "Special Provisions " will, in general, take precedence over the standard texts with respect to the Contract or work for which they were prepared and issued by the City.
THE WORK/ WORK	Collective term used to include the sewers and/or other structures constructed or to be constructed by the Contractor under the Contract; the materials to be furnished if the Contract contemplates the furnishing and delivery of materials or equipment other than those entering into construction; and, where the context admits, will also included physical services or work performed or to be performed by the Contractor.

Other items are defined in the text where used.

1.3 Superintendence by Contractor:

- a. Except where the Contractor is an individual and gives his personal superintendence to the work, the Contractor shall provide a competent superintendent satisfactory to the City and the Engineer for the work at all times during working hours with full authority to act for him. The Contractor shall also provide an adequate staff for the proper coordination and expediting of his work. Should, in the opinion of the Engineer, any language barrier exist between the Superintendent and the Engineer, the Contractor will employ a qualified interpreter.
- b. The Contractor shall layout his own work, including all survey required, and he shall be responsible for all work executed by him under the Contract. He shall verify all figures and elevations before proceeding with the work and will be held responsible for any error resulting from his failure to do so.

1.4 Subcontracts:

- a. The Contractor shall not execute an agreement with any Subcontractor or permit any Subcontractor to perform any work included in this Contract until he has submitted a Non-Collusion Affidavit from the Subcontractor on the form shown in the "Bid Forms" and has received written approval of such Subcontractor from the City. Unless specifically permitted otherwise, the Contractor shall perform with his own organization and with the assistance of workmen under his immediate superintendence work amounting to not less than fifty (50) per cent of the original total Contract value for the project, exclusive of specialty items not commonly found in contracts for similar work or which require highly specialized knowledge, craftsmanship or equipment not ordinarily available in the organization of contractors performing work of the character embraced in this Contract. Specialty items, if any, shall be specified elsewhere.
- b. No proposed Subcontractor shall be disapproved by the City except for cause.
- c. The Contractor shall be as fully responsible to the City for the acts and omissions of his Subcontractors, and of persons either directly or indirectly employed by them, as he is for the acts and omissions of persons directly employed by him.
- d. The Contractor shall cause appropriate provision to be inserted in all subcontracts relative to the work to require compliance by each Subcontractor with the applicable provisions of the Contract for the work embraced in this Contract.
- e. Nothing contained in the Contract shall create any contractual relation between any Subcontractor and the City.

1.5 Other Contracts:

The City reserves the right to let other contracts in connection with this work. The Contractor shall afford other contractors reasonable opportunity for the introduction and storage of their materials and the execution of their work, and shall properly connect and/or coordinate his work with theirs.

The City may award, or may have awarded, other contracts for additional work and the Contractor shall cooperate fully with such other contractors by scheduling his own work with that to be performed under other Contracts as may be directed by the City. The Contractor shall not permit or commit any act which will interfere with the performance of work by any other Contractor as scheduled.

Wherever work being done by the City or municipal forces or other contractors is contiguous to work covered by this Contract, the respective rights of the various interests involved shall be established by the City to secure the completion of the various portions of the work in general harmony.

1.6 Fitting and Coordination of Work:

The Contractor shall be responsible for the proper fitting of all work and for the coordination of the operations of all trades, subcontractors or materialmen engaged upon this Contract. He shall be prepared to guarantee to each of his subcontractors the locations and measurements which they may require for the fitting of their work to all surrounding work. The Contractor shall, at his own expense, effect all cutting, fitting, or patching of his work required to make the same conform to the Contract Drawings and Specifications and, except with the consent of the City, not to cut or otherwise alter the work of any other contractor.

1.7 Mutual Responsibility of Contractor:

If, through acts or neglect on the part of the Contractor, any other contractor or subcontractor shall suffer loss or damage on the work, the Contractor shall settle with such other contractor or subcontractor by agreement or arbitration, if such other contractor or subcontractor will so settle. If such other contractor or subcontractor shall assert any claim against the City on account of any damage alleged to have been so sustained, the City will notify the Contractor, who shall defend at his own expense any suit based upon such claim and, in any judgement or claims against the City, shall pay or satisfy such judgement or claim and pay all costs and expenses in connection therewith and will in all other respects, including, but not limited to attorney's fees and court costs, hold harmless the City and Engineer.

Except as otherwise specifically stated in the Contract Documents, the Contractor shall provide and pay for all materials, labor, tools, equipment, water, light, heat, power, transportation, superintendence, temporary construction of every nature, charges, levies, fees or other expenses and all other services and facilities of every nature whatsoever necessary for the performance of the Contract and to complete this Contract in every respect within the specified time.

1.8 Progress Schedule:

The Contractor shall (unless a Pre-Award Schedule has been submitted and approved) submit within seven (7) calendar days after receiving "Notice to Proceed", a carefully prepared realistic Progress Schedule showing the proposed dates of starting and completing of each and every item of work on each and every section of work in accordance with these Specifications and the SPECIAL CONDITIONS (PROGRESS SCHEDULE) if applicable to this specific Contract. The Progress Schedule shall include as a minimum:

- a. The project name and number.
- b. The contract time, contract beginning date, ending date and periods of shutdown, if any.
- c. A listing of all items of work with the estimated contract cost and periods of activity noted for each segment of the work.
- d. The total estimated contract cost for each segment of the work.
- e. The schedule will generally be set up along the following guidelines unless otherwise stated in the SPECIAL CONDITIONS under "PROGRESS SCHEDULE".

The initial requisition will not be approved for payment until said schedule is submitted. Said schedule will be revised or updated as necessary.

The Progress Schedule shall show the plan of construction and the proposed method of carrying out this work, including a full statement of the equipment to be used. If the SPECIAL CONDITIONS include a "SEQUENCE OF OPERATIONS" and/or "WORK BY OTHERS" all operations referred to therein, together with any and all other operations critical to the timing of this project, shall be included in proper sequence in the Progress Schedule.

1.9 Payments to Contractor:

- a. Methods for Measurement and Estimating: At appropriate points in this text, specifications are given with respect to measuring or estimating certain quantities and the sums due the Contractor for the same. Except as otherwise provided, the Engineer shall determine the appropriate method for measuring and computing each quantity, and for estimating the sums due the Contractor for the various items of work and material, using such methods, tools, and degrees of precision as are suitable for the particular measurement, item, or computation. The Contractor, when so requested by the Engineer, shall assist the Engineer in measuring or determining quantities, either by the help of his unskilled laborers on the site, by furnishing copies of invoices, or by other means.
- b. Prices Include: The prices stated in the Proposal include full compensation for furnishing all the labor, equipment and material needed for, and for performing all the work contemplated by the Contractor.
- c. Partial Payments:
 - (1) The Contractor shall prepare his requisition for partial payment as of the last day of the month and submit it, with the required number of copies, to the Engineer for his approval. The amount of the payment due the Contractor shall be determined by adding the total value of work completed to date and deducting (1) five percent (5%) of the total amount, which will be retainage, and (2) the amount of all previous payments. The total value of work completed to date shall be based on the estimated quantities of work completed and on the unit prices contained in the Agreement.
 - (2) Monthly or partial payments made by the City to the Contractor are monies advanced for the purpose of assisting the Contractor, and he shall be responsible for the care and protection of all materials and work upon which payments have been made. Such payments shall not constitute a waiver of the right of the City to require the fulfillment of all terms of the Contract and the delivery of all improvements embraced in this Contract complete and satisfactory to the City in all details.
- d. Final Payment:
 - (1) After final inspection and acceptance by the City of all work under the Contract, the Contractor shall prepare his requisition for final payment which shall be based upon the carefully measured or computed quantity of each item or work at the applicable unit prices stipulated in the Agreement. The total amount of the final payment due the Contractor under this Contract shall be the amount computed as described above less all previous payments. Final payment to the Contractor shall be made subject to his furnishing the City with a release in satisfactory form of all claims against the City arising under and by virtue of his Contract other than such claims, if any, as may be specifically expected by the Contractor from the operation of the release as provided elsewhere herein. Two and one-half percent (2½ %) of the final total value of work completed shall be retained until the end of the guaranty period. The retainage may be reduced at an earlier date at the option of the City.

(2) The City, before paying the final estimate, will require the Contractor to furnish releases or receipts from all subcontractors having performed any work and all persons having supplied materials, equipment (installed on the Project) and services to the Contractor, if the City deems the same necessary in order to protect its interest. The City may, however, if it deems such action advisable, make payment in part or in full to the Contractor without requiring the furnishing of such releases or receipts, and any payments so made shall no way impair the obligations of any surety or sureties furnished under this Contract.

(3) Withholding of any amount due the City shall be deducted from the final payment due the Contractor.

e. **Withholding Payments:**

The City may withhold from any payment otherwise due the Contractor so much as may be necessary to protect the City, and, if it so elects, may also withhold any amounts due from the Contractor to any subcontractors or material dealers for work performed or material furnished by them. The foregoing provisions shall be construed solely for the benefit of the City and will not require the City to determine or adjust any claims or disputes between the Contractor and his subcontractors or material dealers, or to withhold any monies for their protection unless the City elects to do so. The failure or refusal of the City to withhold any monies from the Contractor shall no way impair the obligations of any surety or sureties under any bond or bonds furnished under this Contract.

f. **Payments subject to Submission of Certificates:** Each payment to the Contractor by the City shall be made subject to submission by the Contractor of all written certifications required of him and his subcontractors.

1.10 Changes in the Work:

a. The City may make changes in the work required to be performed by the Contractor under the Contract by making additions thereto, or by omitting work therefrom, without invalidating the Contract.

b. Except for the purpose of affording protection against any emergency endangering life or property, the Contractor shall make no change in the materials used or in the specified manner of constructing and/or installing the improvements or supply additional labor, services or materials beyond that actually required for the execution of the Contract, unless in pursuance of a written order from the City authorizing the Contractor to proceed with the change. No claim for an adjustment of the Contract price will be valid unless so ordered.

c. The Contractor agrees to perform any of the aforementioned changed work, along with all other required work found under the Contract, without delay and in accordance with good construction practices.

d. These changes outlined above may be made without relieving or releasing the Contractor from any of his obligations under the Contract provisions, and without affecting the validity of the guaranty bonds, and without relieving or releasing the surety or sureties of said bonds. All such work shall be executed under the terms of the original Contract unless it is provided otherwise.

- e. If the changed work is more costly to the Contractor than the original contract work, an adjustment of the Contract payment provisions will be made to compensate the Contractor for such additional cost. If such change is less costly to the Contractor than the original work, an adjustment of the Contract payment provisions will be made to credit the City with such decreased cost. All adjustments to the Contract payment provisions will be made in accordance with Paragraphs g. and h. below.
- f. If applicable unit prices are contained in the Agreement (established as a result of either a unit Price Bid or a Supplemental Schedule of Unit Prices) the City may order the Contractor to proceed with desired changes in the work, the value of such changes to be determined by the measured quantities involved and the applicable unit prices specified in the Contract.
- g. If applicable unit prices are not contained in the Agreement, the City shall, before ordering the Contractor to proceed with desired changes, request an itemized proposal from him covering the work involved in the change, after which the procedure shall be as follows:
 - (1) If the change in the work involves additional work, the procedure shall be as follows:
 - (a) If the proposal is acceptable, the City will prepare the Change Order in accordance therewith for acceptance by the Contractor; or
 - (b) If the proposal is not acceptable and prompt agreement between the two parties cannot be reached, the City may order the Contractor to proceed with the work on a Cost-Plus-Basis. A Cost-Plus-Basis will be paid for as defined in the Form 816, Section 1.09.04.
 - (2) If the change in the work required a reduction in the work involved, the procedure shall be as follows:
 - (a) If the proposal is acceptable, the City will prepare the Change Order in accordance therewith for acceptance by the Contractor; or
 - (b) If the proposal is not acceptable, and prompt agreement between the two parties cannot be reached, the Engineer shall fix the cost value of the credit. The City may then order the Contractor to proceed with the work. Should the Contractor disagree with the cost value of the credit as fixed by the Engineer, he may appeal the same in accordance with the procedures outlined herein.
- h. Each Change Order shall include in its final form:
 - (1) A detailed description of the change in the work.
 - (2) The Contractor's proposal (if any) or a confirmed copy thereof.
 - (3) A definite statement as to the resulting change in the Contract price and/or time.
 - (4) The statement that all work involved in the change shall be performed in accordance with Contract requirements except as modified by the Change Order.
- i. The Contractor shall not take advantage of any obvious error in the specifications or any such error in the drawings or other Contract Documents. Any obvious error or discrepancy in or between any of the Contract Documents will be immediately reported to the Engineer, who shall make such corrections and interpretations as may be deemed necessary for the completion of the work in a satisfactory and acceptable manner.

1.11 Claims for Extra Cost and Time:

- a. All claims between the parties, including all claims for additional time arising out of or in any way related to this Contract and/or the performance of the same or its interpretation, shall within ten (10) days of the event or action giving rise to the claim be presented to the City. All papers pertaining to claims shall be filed in quadruplicate. Such notice need not detail the amount of the claim, but shall state the facts surrounding the claim in sufficient detail to identify the claim, together with its character and scope. In the meantime, the Contractor shall proceed with the work as directed. Any claim not presented within the time limit specified in this paragraph shall be deemed to have been waived, except that if the claim is of a continuing character and notice of the claim is not given within five (5) days of its commencement, the claim will be considered only for a period commencing five (5) days prior to the receipt by the City of notice thereof. The Contractor shall in no case allow any claim or dispute to delay the work.
- b. As soon as practicable after the final submission of all information, the City shall make a determination of any claim. Said decision of the City shall be a condition precedent to any further action on the claim. However, upon certification in writing by the claimant that the claim has been submitted in its final form, the City shall be obliged to render a decision on said claim within sixty (60) days of the date of said certification. Should the City fail to render its decision within the aforementioned sixty (60) day period, its decision will not be a condition precedent to any further action on the part of the claimant.
- c. There shall be no added compensation paid for delay to the Contractor unless the City causes said delay by a material breach of this Contract, and compliance with the foregoing notice provisions shall be a condition precedent to the prosecution of any such claim. In any claim for delay except for "Excusable Delays and Extensions of Time" as defined in the GENERAL CONDITIONS SECTION "TERMINATION"; "DELAYS AND EXTENSIONS"; "LIQUIDATED DAMAGES", wherein it is alleged that the Contractor's equipment was caused to remain idle, only one-half of the prevailing rental rates for use of said equipment will be considered as damages for idled equipment in order to allow for the absence of fair wear and tear, which is allowed for in prevailing rental rates for equipment usage.
- d. Claims for additional compensation for extra work due to alleged errors in ground elevations, contour lines, or bench marks will not be considered unless accompanied by certified survey data, made prior to the time the original ground was disturbed, clearly showing that errors exist which resulted, or would result, in handling more material or performing more work than would be reasonably estimated from the drawings and maps issued.
- e. If, on the basis of the available evidence, the City determines that an adjustment of the Contract Price and/or Time is justifiable, the procedure shall be as provided in Sections "CHANGES IN THE WORK" or "TERMINATIONS; DELAYS AND EXTENSIONS; LIQUIDATED DAMAGES" of the GENERAL CONDITIONS.
- f. In the event of an unfavorable decision by the City, the Contractor shall have the right to contest said decision as provided for under the provisions of this Contract.

1.12 Termination; Delays and Extensions; and Liquidated Damages:

- a. Termination of Contract: For its own convenience, the City may, at any time prior to the issuance of a Notice to Proceed, void the Contract by giving unequivocal and unconditional written notice of such avoidance to the Contractor, and in the event of such avoidance, the City will not be liable to the Contractor for any claims or losses, including anticipated loss of profit and monies expended in anticipation of performance under the Contract.

At any time subsequent to the Notice to Proceed, the City may, at its own convenience, terminate the Contract by giving unequivocal and unconditional written notice of such termination to the Contractor. In the event of such termination by the City, the City shall be responsible to the Contractor for the following monies only, which monies shall be subject to legitimate charges of the City against the Contractor:

- (1) All reasonable costs incurred by the Contractor in performance of or in anticipation of performance of the Contract, provided the Contractor shall take all reasonable steps to mitigate such damages including the return and/or resale of materials ordered; and
- (2) A mark-up of 10% for profit and 10% for overhead on the reasonable cost of the work completed and in place, in accordance with the Contract Drawings and Specifications, to the date of termination. The Contractor shall remain responsible for the work completed, in accordance with the Contract provisions.

Should any work under this Contract be subject to, or terminated by the action of any third party, governmental unit or court due to any ecological or other reason, the rights of the Contractor to recover payment for all work executed from the City shall be determined as set forth above.

The City may give notice in writing to the Contractor and his Surety of any material breach of the Contract by the Contractor to include, but not limited to, any of the following:

- (1) Failure to begin the work under the Contract within the time specified.
- (2) Failure to perform the work with sufficient workmen, equipment, or materials to insure the prompt completion of the work.
- (3) Unsuitable performance of the work or failure to perform such work as shall be rejected as defective and unsuitable.
- (4) Neglecting or refusing to remove material rejected as defective and unsuitable.
- (5) Discontinuing the suitable prosecution of the work for a period of 72 hours, excluding Sundays and Holidays, without written authorization of the Engineer.
- (6) Failure to commence discontinued work within 48 hours after notice to resume (excluding Sundays and Holidays).
- (7) Becoming insolvent or declared bankrupt, or commits any act of bankruptcy or insolvency.
- (8) Allowing any final judgment to stand against him unsatisfied for a period of ten (10) calendar days.
- (9) Making any assignment for the benefit of creditors.
- (10) Violating any covenants contained in the Contract Documents .

The Contractor or Surety, within a period of ten (10) calendar days after such notice, shall take all practical action to correct said material breach. Should said action fail to meet with the approval of the City, the City may, at its discretion, order the Surety to complete the work or, without violating the Contract, take the prosecution of the work out of the hands of said Contractor or Surety.

The City may appropriate or use any or all materials and equipment on the ground as may be suitable and acceptable and may enter into agreement, either by negotiation or public letting, for the completion of said Contract according to the terms and provisions thereof, or use such other methods or combinations thereof, as in its opinion shall be required or desirable for the completion of said Contract in an acceptable manner. All costs and charges incurred by the City, together with the cost of completing the work under Contract, shall be deducted from any monies due or which may become due said Contractor. In case such expense shall exceed the sum which would have been payable under the Contract, then the Contractor and the Surety shall be liable and shall pay to the City the amount of said excess.

b. Excusable Delays and Extensions of Time: The right of the Contractor to proceed shall not be terminated nor shall the Contractor be charged with liquidated damages for any delays in the completion of the work due:

(1) To any acts of the Government, including controls or requisitioning of materials, equipment, tools, or by labor by reason of war, National Defense, or any other national emergency.

(2) To any acts of the City, its Engineer or Agents; or injunction or litigation against said City.

(3) To causes not reasonably foreseeable by the parties to this Contract at the time of the execution of the Contract which are beyond the control and without the fault or negligence of the Contractor, including, but not restricted to, acts of God or the public enemy acts of another Contractor in the performance of some other contract with the City, fires, floods, epidemics, quarantine, restrictions, strikes, freight embargoes, and weather of unusual severity such as hurricanes, tornadoes, cyclones and other extreme weather conditions.

(4) To any delay of any subcontractor occasioned by any of the causes specified in subparagraphs (1), (2), and (3) of this Paragraph "b".

Provided, however, that the Contractor promptly notifies the City within ten (10) days in writing of the cause of the delay. Upon receipt of such notification, the City shall ascertain the facts and the cause and extent of delay. If, upon the basis of the facts and the terms of this Contract the delay is properly excusable, the City shall extend the time for completing the work for a period of time commensurate with the period of excusable delay.

No claim for damages or any claim other than for an extension of time as herein provided shall be made or asserted against the City by reason of any delay.

1.13 Assignment or Novation:

The Contractor shall not assign or transfer, whether by an assignment or novation, any of its rights, duties, benefits, obligations, liabilities or responsibilities under this Contract without the written consent of the City; provided, however, that assignments to banks, trust companies, or other financial institutions may be made without the consent of the City. No assignment or novation of this Contract shall be valid unless the assignment or novation expressly provides that the assignment of any of the Contractor's rights or benefits under the Contract is subject to a prior lien for labor performed, services rendered and materials, tools and equipment supplied for the performance of the work under this Contract in favor of all persons, firms or corporations rendering such labor or services or supplying such materials, tools or equipment.

1.14 Engineer's Authority:

All work shall be subject to the review of the Engineer. He shall decide all questions as to interpretation of the plans, specifications, and questions of mutual rights between contractors. He shall decide on an acceptable rate of progress, on the manner of performance, and on the acceptable fulfillment of the Contract. The Engineer shall have the right to determine the points at which the Contractor may begin work and the order in which the work shall be prosecuted to the best interest of the City and within the intent of the terms of the Contract. The determination or decision of the Engineer shall be a condition precedent to the right of the Contractor to receive any money or payment for work under this Contract affected in any manner or to any extent by such question.

1.15 Specifications and Contract Drawings:

Anything mentioned in the Specifications and not shown on the Contract Drawings, or shown on the Contract Drawings and not mentioned in the Specifications, shall be of like effect as is shown on or mentioned in both. In case of any discrepancy in the Contract Drawings or Specifications, the matter shall be immediately submitted to the Engineer without whose decision said discrepancy shall not be adjusted by the Contractor, save only at his own risk and expense. The GENERAL CONDITIONS and SPECIAL CONDITIONS shall take precedence over the STANDARD SPECIFICATIONS Form 816, as amended.

1.16 Shop Drawings:

- a. All required shop drawings, machinery details, layout drawings, working drawings, material and equipment descriptions, etc. shall be submitted to the Engineer in four (4) copies for review, sufficiently in advance of requirements to afford ample time for checking, including time for correcting, resubmitting and rechecking, if necessary. Four (4) weeks should be allowed for checking from the date of receipt by the Engineer. The Contractor, with the approval of the Engineer, may submit manufacturer's literature as a substitute for, or supplement to, the shop drawings, etc. The minimum size for any submission shall be 8.5" x 11" and the maximum size shall be the size of the Contract Drawings. All shop drawings, etc. and/or printed matter submitted shall be properly identified by project and specific application with reference to Contract Drawing number and specification items.
- b. No construction, purchase, delivery, installation or work shall be done or made on any part or feature of this Contract which is dependent upon shop drawing review, until such review has been received from the Engineer. If the Contractor proceeds without reviewed shop drawings, it shall be at his own risk. No claim by the Contractor for extension of the Contract time will be granted by reason of his failure in this respect.
- c. Shop drawings, etc. or printed matter shall give all dimensions, sizes, etc. to enable the Engineer to determine suitability of the construction, installation, material or layout for the purposes intended. Where needed for clarity, the drawings shall include outline, sectional views and detailed working dimensions and designations of the kind of material, machine work, finish, etc. required. The drawings to be submitted shall be coordinated by the Contractor with any other drawings previously reviewed, with the design and function of any equipment or structure and the Contract Drawings.
- d. Any shop drawings, etc. submitted without the Contractor's stamp of approval will not be considered and will be returned to the Contractor for proper resubmission. By approving and submitting shop drawings, etc., the Contractor thereby represents that he has determined and verified all field measurements, field construction criteria, materials, catalog numbers and similar data, or will do so, and that he has checked and coordinated each shop drawing, etc. with the requirements of the work and of the Contract Documents.

- e. If any drawings show variations from the requirements of the Contract because of standard shop practice and/or other reasons, the Contractor shall make specific mention of such variation in his letter of transmittal in order that, if acceptable, suitable action may be taken for proper adjustment of the contract price and/or time; otherwise, the Contractor will not be relieved of the responsibility for executing the work in accordance with the Contract even though the drawings have been reviewed.
- f. After review, the submittal will be stamped “No Exceptions Taken”, “Make Corrections Noted”, “Amend and Resubmit”, or “Rejected--See Remarks”. Two (2) prints of “No Exceptions Taken” or “Make Corrections Noted” drawings will be returned to the Contractor for his use and distribution to his suppliers and/or subcontractors. In the case of those stamped “Amend and Resubmit” or “Rejected--See Remarks”, two (2) prints will be returned to the Contractor, who shall make all indicated corrections and resubmit four (4) prints.
- g. In any submission, which is noted as “No Exceptions Taken” or “Make Corrections Noted”, the review shall not extend to details or dimensions and shall not relieve the Contractor from his responsibility for compliance with the Contract Drawings and Specifications.
- h. When the Contractor proposes a revision to a previously submitted shop drawing, etc., four (4) copies shall be resubmitted for review. This resubmittal shall clearly indicate, in a revision block, the date, description, and location of the revision. The letter of transmittal shall state the reasons for the revision.
- i. The Contractor shall furnish as many copies of the submittals as is necessary for the proper coordination of the work, and shall maintain a complete set of the reviewed submissions at the site of the work at all times.
- j. Upon the final acceptance of the project, the Contractor shall, on request, furnish the City with a complete set of shop drawing tracings or reproducible cloth reproductions of the shop drawing tracings.
- k. There will be no direct payment made for any of the above submittals or reproducible drawings, if required, but the cost thereof shall be considered as included in the general cost of the work.

1.17 Requests for Supplementary Information:

It shall be the responsibility of the Contractor to make timely requests of the **City** for any additional information not already in his possession which should be furnished by the City under the terms of this Contract, and which he will require in the planning and execution of the work. Such requests may be submitted from time to time as the need is approached, but each shall be filed in ample time to permit appropriate action to be taken by all parties involved so as to avoid delay. Each request shall be in writing, and list the various items and latest date by which each will be required by the Contractor. The first list shall be submitted within two (2) weeks after Contract award and shall be as complete as possible at that time. The Contractor shall, if requested, furnish promptly any assistance and information the Engineer may require in responding to these requests of the Contractor. The Contractor shall be fully responsible for any delay in his work or to others arising from his failure to comply fully with the provisions of this Section.

1.18 Materials and Workmanship:

- a. Unless otherwise specifically provided for in the Specifications, all workmanship, equipment, materials and articles incorporated in the work shall be new and the best grade of the respective kinds for the purpose. Where equipment, materials, articles or workmanship are referred to in the Specifications as “equal to” any particular standard, the Engineer shall decide the question of equality.
- b. All work performed and all materials furnished shall be in conformity with the lines, grades, cross-sections, dimensions, and material requirements, including tolerances shown on the Contract Drawings or indicated in the Specifications.
- c. The Contractor shall furnish to the City for approval the manufacturer's detail specifications for all machinery, mechanical, and other special equipment which he contemplates installing, together with full information as to type, performance characteristics, and all other pertinent information as required, and shall likewise submit for approval as required full information concerning all other materials or articles which he proposes to incorporate in the work.
- d. Machinery, mechanical and other equipment, materials or articles installed or used without such prior approval shall be at the risk of subsequent rejection.
- e. Materials specified by reference to the number or symbol of a specific standard such as an ASTM Standard, a Federal Specification or other similar standard shall comply with requirements in the latest revision thereof and any amendment or supplement thereto in effect on the date of the Invitation for Bids, except as limited to type, class or grade, or modified in such reference. The standards referred to, except as modified in the Technical Specifications, shall have full force and effect as though printed therein.
- f. The Contractor shall employ only competent and skillful men to do the work and whenever the City shall notify the Contractor in writing that any man on the work is, in its opinion, incompetent or disorderly, the Contractor shall forthwith remove such person and shall not again employ him on any part of the work without the written consent of the City.
- g. The City may stop any work or any part of the work under the Contract if the methods or conditions are such that unsatisfactory work might result, if improper materials or workmanship are being used, or unsafe conditions exist.
- h. In the event the materials furnished or the work performed deviates from the requirements of the Contract Drawings and Specifications, but, in the opinion of the City, constitutes substantial performance, the City may accept the same. Should the deviation in question result in a savings to the Contractor, the City will be entitled to a credit in the full amount of said savings. Should the deviation in question result in an additional cost to the Contractor, the City will not be liable to the Contractor for such additional cost.

If the materials, or the finished product in which the materials are used, or the work performed are not in conformity with the Contract Drawings and Specifications and have resulted in an inferior or unsatisfactory product, the work and materials shall be removed and replaced or otherwise corrected by and at the expense of the Contractor.

1.19 Samples, Certificates and Tests:

- a. The Contractor shall submit all samples, materials, certified test reports, materials certificates, certificates of compliance, affidavits, etc. as called for in the Contract Documents or required by the Engineer promptly after award of the Contract and acceptance of the Contractor's bonds. No such materials and/or equipment, etc. shall be manufactured or delivered to the site, except at the Contractor's own risk, until the required samples/certificates/tests/etc. have been approved in writing by the Engineer. Any delay in the work caused by late or improper submission of the above for approval shall not be considered just cause for an extension of the Contract time.
- b. Samples: Unless otherwise specified the Contractor shall furnish the required samples without charge, and shall provide every facility for the securing of material samples. He shall provide means and assist in the verification of all scales, measures and other devices which he operates. Samples to be submitted shall be taken by the Engineer or a laboratory approved by the City unless otherwise specified. All materials being used shall be subject to re-sampling and testing at any time during their preparation and/or use.

All samples submitted by the Contractor shall be properly identified to include, but not be limited to, the project name, project number, item number and description of material, name of the producer, place of origin, and other detailed information, which will assist the Engineer passing upon the acceptability of the sample. Certified test reports, materials certificates and/or certificates of compliance required to be submitted with the samples, or if permitted in lieu of samples, shall conform to the requirements stated hereafter.

- c. Certified Test Report: A certified test report shall be a document containing a list of the dimensional, chemical, metallurgical, electrical and physical results obtained from an actual test of the materials involved, and shall certify that the materials meet the requirements of the Contract Drawings and Specifications, and shall also include the following information:
 - (1) Item number and description of material.
 - (2) Date of manufacture.
 - (3) Date of testing.
 - (4) Name of organization to whom the material is consigned.
 - (5) Quantity of material represented such as batch, lot, group, etc.
 - (6) Means of identifying the consignment such as label, marking, lot number, etc.
 - (7) Date and method of shipment.
 - (8) Name of organization performing tests.

The certified test report shall be signed by an authorized and responsible agent for the organization manufacturing the material, and it shall be notarized.

d. **Materials Certificate:** A materials certificate shall be a document certifying that the materials, components and equipment furnished conform to all requirements of the Contract Drawings and Specifications. The document shall also include the following information:

- (1) Project to which the material is consigned.
- (2) Name of contractor to whom material is supplied.
- (3) Item number and description of material.
- (4) Quantity and material represented by the certificate.
- (5) Means of identifying the consignment such as label, marking, lot numbers, etc.
- (6) Date and method of shipment.

The materials certificate shall be signed by an authorized and responsible agent for the organization supplying the material, and it shall be notarized.

e. **Certificate of Compliance:** A certificate of compliance shall be a document certifying that the materials, components and equipment covered by the previously submitted Certified test report and materials certificate have been installed in the work and that they conform to all the requirements of the Contract Drawings and Specifications. The following information shall also be required on the document:

- (1) Project number.
- (2) Item number and description of material.
- (3) Quantity represented by the certificate.
- (4) Name of manufacturer.

The certificate of compliance shall be signed by an authorized and responsible agent for the prime Contractor, and shall be notarized.

f. **Tests:** Tests as required by the Specifications will be made in accordance with the latest revision to the standard method of American Association of State Highway Officials or the American Society for Testing and Materials in effect at the time of bidding, unless otherwise specified on the Contract Drawings or Special Conditions. Representative preliminary samples of the material proposed for use shall be submitted, without charge, by the Contractor or producer for examination and tested in accordance with specified methods. All materials being used are subject to test or rejection at any time during their preparation and use.

Materials will be rejected by the Engineer whenever, in his judgment, they fail to meet the requirements of the Specifications.

The City reserves the right to retest all materials which have been tested and accepted at the source of supply after the same have been delivered, and to reject all materials which, when retested, do not meet the requirements of the Specifications.

- g. Approval/Acceptance: Approval of any materials shall be general only and shall not constitute a waiver of the City's right to demand full compliance with Contract requirements. After actual deliveries, the Engineer will have such check tests made as he deems necessary in each instance and may reject materials and equipment and accessories for cause, even though such materials and articles have been given general approval. If materials, equipment or accessories which fail to meet check tests have been incorporated in the work, the Engineer will have the right to cause their removal and replacement by proper materials or to demand and secure such reparation by the Contractor as is equitable.

The Engineer may accept a material or combination of materials and, therefore, waive non complying test results, provided that all of the following conditions are met:

- (1) Results of prior and subsequent series of tests of the material or materials from the same source or sources are found satisfactory.
- (2) The incidence and degree of nonconformance with the Specification requirements are, in the Engineer's judgment, within reasonable and practical limits.
- (3) The Contractor has diligently exercised material controls consistent with good practices in the Engineer's judgement.
- (4) No adverse effect on the value or serviceability of the completed work could result.

The Engineer may, at his discretion, waive testing of extremely minor quantities of material when such material is obtained from sources that are prevalently on test.

- h. Costs: Except as otherwise specifically stated in the Contract, the costs of sampling and testing will be divided as follows:

- (1) The Contractor shall furnish without extra cost, including packing and delivery charges, all samples required for testing purposes, except those samples taken on the project by the Engineer, and the City shall pay all other testing costs of said samples.
- (2) The Contractor shall assume all costs of retesting materials, which fail to meet Contract requirements.
- (3) The Contractor shall assume all costs of testing materials offered in substitution for those found deficient or for those specified.

1.20 Permits and Codes:

- a. The Contractor shall give all notices required by, and shall observe and comply with all Federal and State Laws, and Local by-laws, ordinances and regulations in any manner affecting the conduct of the work, and all such orders or decrees as may exist at present and those which may be enacted later, of bodies or tribunals having any jurisdiction or authority over the work. The Contractor shall indemnify and save harmless the City and Engineer and all of its officers, agents and servants against any claim or liability arising from or based on the violation of any such law, bylaw, ordinance, regulation, order or decree, whether by himself or his employees. All construction, work and/or utility installations shall comply with all applicable ordinances and/ or codes, including any and all written waivers thereto.

Before commencing any work, the Contractor shall examine the Contract Drawings and Specifications for compliance with applicable ordinances, codes, etc. and shall immediately report any discrepancy to the City. Where the requirements of the Contract Drawings and Specifications fail to comply with such applicable ordinances, codes, etc., the City will adjust the Contract by Change Order to conform to such ordinances, codes, etc. (unless waivers in writing covering the differences have been granted by the governing body or department) and make the appropriate adjustment in the Contract Price or stipulated unit prices.

Should the Contractor fail to observe the foregoing provisions and proceed with the construction or work and/or install any utility at variance with any applicable ordinance, code, etc., including any written waivers (notwithstanding the fact that such installation is in compliance with the Contract Drawings and Specifications), the Contractor shall remove such work without cost to the City, but a Change Order will be issued to cover only the excess cost the Contractor would have been entitled to receive if the change had been made before the Contractor commenced work on the items involved.

- b. Unless otherwise specified, the Contractor shall, at his own expense, secure and pay to the appropriate department of the Local/State/Federal Government the fees or charges for all permits including, but not limited to, those required for street pavements, sidewalks, sheds, removal of abandoned water taps, sealing of house connection drains, pavement cuts, buildings, electrical, plumbing, water, gas, and sewer permits, etc. required by the regulatory body or any of its agencies.
- c. The Contractor shall comply with applicable Local/State/Federal Laws, ordinances, codes, etc. governing the disposal of surplus excavation, materials, debris and rubbish on or off the Project Area and commit no trespass on any public or private property in any operation due to or connected with the work under this Contract.

1.21 Care of Work:

- a. The Contractor shall be responsible for the proper care and protection of all materials delivered and work performed until completion and final acceptance, whether or not the same has been covered in whole or in part by payments made by the City.

Materials shall be stored so as to insure the preservation of their quality and fitness for the work and shall be located so as to facilitate prompt inspection. When considered necessary, they shall be placed on wooden platforms or other hard, clean surfaces and not on the ground and, when directed, shall be placed in weatherproof buildings.

Stored materials, even though approved before storage, shall be inspected prior to their use in the work and shall meet the requirements of the specifications at the time it is proposed to use them.

- b. The Contractor shall, at his sole expense and without any additional cost to the City, provide watchmen and/or other security measures as may be reasonably required to properly protect and care for materials and work completed, and to otherwise prevent property damage and/or personal injury.
- c. In an emergency affecting the safety of life or property, including adjoining property, the Contractor, without special instructions or authorization from the City, is authorized to act at his discretion to prevent such threatened loss or injury, and he shall so act. He shall likewise act if instructed to do so by the City. Any compensation claimed by the Contractor on account of such emergency work will be determined by the City as provided herein.

- d. The Contractor shall avoid damage as a result of his operations to existing sidewalks, streets, curbs, pavements, utilities (except those which are to be replaced or removed), adjoining property, etc., and he shall, at his own expense, completely repair any damage thereto caused by his operations.
- e. The Contractor shall shore up, brace, underpin, secure, and protect as may be necessary, all foundations and other parts of existing structures adjacent to, adjoining, and in the vicinity of the site which may be in any way affected by the excavations or other operations connected with the construction of this Contract. The Contractor shall be responsible for the giving of any and all required notices to any adjoining or adjacent property owner or other party before the commencement of any work. The Contractor shall indemnify and save harmless the City and the Engineer from any damages on account of settlements or the loss of lateral support of adjoining property and from all loss or expense and all damages for which the City and the Engineer may become liable in consequence of such injury or damage to the work or adjoining and adjacent structures and/or their premises.

1.22 Accident Prevention:

- a. The Contractor shall exercise proper precautions and safety measures at all times for the protection of persons and/or property and shall be responsible for all injuries and/or damages to all persons and/or property, either on or off the site, which occur as a result of his prosecution of the work under this Contract. The safety provisions of all applicable Local/State/Federal laws and building and construction codes shall be observed and the Contractor shall take or cause to be taken such additional safety and health measures as the City may determine to be reasonably necessary.

Machinery, equipment and trucks shall be properly guarded, and operational hazards shall be eliminated in accordance with the provisions and intent of the latest revised edition of the "Manual of Accident Prevention in Construction", published by the Associated General Contractors of America, to the extent that such provisions are not in contravention of applicable law. A copy of this manual shall be available for reference at all times in the Contractor's field office. The Contractor's attention is also called to the Section: SAFETY PROVISIONS of the GENERAL CONDITIONS.

- b. The Contractor shall maintain an accurate record of all cases of death, occupational disease, and injury requiring medical attention or causing loss of time from work arising out of and in the course of employment on the work under this Contract in accordance with the requirements of the applicable Local/State/Federal regulations. The Contractor shall promptly furnish the City with reports concerning these matters.
- c. The Contractor shall indemnify and save harmless the City and the Engineer from any and all claims for damages resulting from personal injury, death and/or property damage suffered or alleged to have been suffered by any person as a result of any work conducted under this Contract. See also the Section: INDEMNITY CLAUSE of the GENERAL CONDITIONS.

1.23 Sanitary Regulations:

Provisions are to be made by the Contractor prior to startup for use of offsite sanitary facilities for duration of project.

1.24 Use of Premises:

- a. The Contractor shall confine his equipment, storage of materials, and construction operations to the Contract Limits as shown on the Drawings and as prescribed by ordinances or permits, or as may be desired by the City, and shall not unreasonably encumber the site or public rights of way with his materials and construction equipment.
- b. The Contractor shall comply with all instructions of the City, Engineer and the ordinances, codes, etc. of the Local/State/Federal Government regarding signs, advertising, traffic, fires, explosives, danger signals, barricades, etc.

1.25 Removal of Debris, Cleaning, Etc:

The Contractor shall weekly or as directed during the progress of the work, remove and legally dispose of all surplus excavated material and debris, and keep the Project Area and public rights of way reasonably clear. Upon completion of the work, he shall remove all temporary construction facilities, debris and unused materials provided for the work and put the whole site of the work and public rights of way in a neat and clean condition.

Trash burning on the site of the work will be subject to prior approval of the City and existing Local/State/Federal regulations.

The cost of all required clean up shall be included in the various prices bid under this Contract.

1.26 Inspection/Acceptance of the Work:

- a. All materials and workmanship shall be subject to inspection, examination or test by the City and the Engineer to determine the acceptability of the work at any and all times during manufacture or construction and at any and all places where such manufacture or construction is carried on, and the Contractor shall provide proper facilities for such access and inspection. The City or the Engineer shall have the right to reject defective material and workmanship or require its correction. Unacceptable workmanship shall be satisfactorily corrected. Rejected material shall be promptly segregated and removed from the Project Area and replaced with material of specified quality without charge therefor. If the Contractor fails to proceed at once with the correction of rejected workmanship or defective material, the City may, by contract or otherwise, have the defects remedied or rejected materials removed from the Project Area and charge the cost of the same against any monies which are due or may become due the Contractor, without prejudice to any rights or remedies of the City.
- b. The Contractor shall furnish promptly all materials reasonably necessary for any tests which may be required. (See Section; SAMPLES, CERTIFICATES AND TESTS under the GENERAL CONDITIONS.) All tests by the City or the Engineer will be performed in such manner as not to delay the work unnecessarily and shall be made as required by the Specifications.
- c. If the Specifications, the City's Engineer's instructions, laws, ordinances, or any public authority require any work to be specifically tested or approved, the Contractor shall give the Engineer timely notice of its readiness for inspection, and if the inspection is by an authority other than the Engineer (such as a testing organization designated by the City), of the date fixed for such inspection. If any work should be covered up without approval or consent of the Engineer, it must, if required by the Engineer be uncovered for examination and properly restored at the Contractor's expense.

The Contractor shall notify the Engineer sufficiently in advance of backfilling or concealing any facilities to permit proper inspection. If any facilities are concealed without approval or consent of the Engineer or the City, the Contractor shall uncover for inspection and recover such facilities all at his own expense when so requested by the City or the Engineer.

Should it be considered necessary or advisable by the Engineer, at any time before final acceptance of the entire work, to make an examination of work already completed by uncovering the same, the Contractor shall, on request, promptly furnish all necessary facilities, labor and material. If such work is found to be defective due to the fault of the Contractor or his subcontractors, he shall defray all the expenses of such examination and of satisfactory reconstruction. If, however, such work is found to meet the requirements of the Contract, payment under the provisions of the GENERAL CONDITIONS, CHANGES IN THE WORK, shall be allowed the Contractor and he shall, in addition, if completion of the work of the entire Contract has been delayed thereby, be granted a suitable extension of time on account of the additional work involved.

- d. Inspection of materials and appurtenances to be incorporated in the improvements embraced in this Contract may be made at the place of production, manufacture, or shipment whenever the quantity justifies it, and such inspection and acceptance, unless otherwise stated in the Specifications, shall be final except as regards (1) latent defects, (2) departures from specific requirements of the Contract, (3) damage or loss in transit, or (4) fraud, or such gross mistakes as amount to fraud. Subject to the requirements contained in the preceding sentence, the inspection of materials as a whole or in part will be made at the project site.
- e. Neither inspection, testing, approval nor acceptance of the work in whole or in part by the city or its agents shall relieve the Contractor or his sureties of the full responsibility for materials furnished or work performed not in strict accordance with the Contract.

1.27 Review by City:

The City, its authorized representatives, and agents shall at all times have access to and be permitted to observe and review all work, materials, equipment, payrolls, personnel records, employment conditions, material invoices, and other relevant data and records pertaining to this Contract; provided, however, that all instructions to the Contractor are only by the City through its authorized representatives or agents.

1.28 Final Inspection:

When the improvements embraced in this Contract are substantially completed, the Contractor shall notify the City in writing that the work will be ready for final inspection on a definite date which shall be stated in the notice. The notice will be given at least ten (10) days prior to the date stated for final inspection, and bear the signed concurrence of the representative of the City having charge of its inspection. If the City determines that the status of the improvements is as represented, it will make the arrangements necessary to have final inspection commenced on the date stated in the notice, or as soon thereafter as is practicable. The inspection party may also include the representative of the Federal and/or State Agencies and representatives of each department of the Local Government having charge of improvements of like character when such improvements are later to be accepted by the Local Government.

1.29 Deductions for Uncorrected Work:

If the City deems it not expedient to require the Contractor to correct work not done in accordance with the Contract Documents, an equitable deduction from the Contract Price will be made by agreement between the Contractor and the City and subject to settlement in case of dispute, as herein provided.

1.30 Insurance:

Refer to the “**Certificate Of Insurance**” section found elsewhere in these Contract Documents.

1.31 Patents:

The Contractor shall hold and save the City, its officers and employees harmless from liability of any nature or kind, including, but not limited to, court costs and attorney's fees, for or on account of any patented or unpatented invention, process, article or appliance manufactured or used in the performance of the Contract, including its use by the City, unless otherwise specifically stipulated in the Technical Specifications.

1.32 Warranty of Title:

No materials, supplies or equipment incorporated or to be incorporated in the work shall be purchased subject to any chattel mortgage or under a conditional sale or other agreement by which an interest therein or in any part thereof is retained by the seller or supplier. The Contractor shall warrant good title to all materials, supplies and equipment installed or incorporated in the work and, upon completion of all work, shall deliver the same together with all improvements and appurtenances constructed or placed thereon by him to the City free from any claims, liens or charges. Neither the Contractor nor any person, firm or corporation furnishing any material or labor for any work covered by this Contract shall have any right to a lien upon any improvement or appurtenance thereon. Nothing contained in this paragraph, however, shall defeat or impair the right of person furnishing materials or labor to recover under any law permitting such persons to look to funds due the Contractor in the hands of the City. The provisions of this paragraph shall be inserted in all subcontracts and material contracts and notice of its provisions shall be given to all persons furnishing materials for the work when no formal contract is entered into for such materials.

1.33 General Guaranty:

Neither the final certificate of payment, nor any provision in the Contract, nor partial or entire use of the improvements embraced in this Contract by the City or the public shall constitute an acceptance of work not done in accordance with the Contract or relieve the Contractor of Liability in respect to any express warranties or responsibility for faulty materials or workmanship. The Contractor shall promptly remedy any defects in the work and pay for any damage to other work resulting therefrom, which shall appear within a period of twelve (12) months from the date of final acceptance of the work. The City will give notice of defective materials and work with reasonable promptness.

1.34 Arbitration and Litigation:

Any controversy or claim arising out of or relating to this Contract or the breach thereof shall not be submitted to arbitration and the parties shall be left to their remedies at law.

1.35 Risk of Loss:

The City assumes no responsibility for the condition of existing buildings and structures and other property on the Project Area, nor for their continuance in the condition existing at the time of issuance of the Invitation for Bids or thereafter. No adjustment of Contract Price or allowance for any change in conditions which may occur after the Invitation for Bids has been issued will be made except as provided for herein.

1.36 Required Provisions Deemed Inserted:

Each and every provision of law and clause required by law to be inserted in this Contract shall be deemed to be inserted herein, and the Contract shall be read and enforced as though it were included herein and, if through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon the application of either party the Contract shall forthwith be physically amended to make such insertion or correction.

1.37 Corrections:

The Engineer shall have the right to correct any errors or omissions in the Contract, Specifications or Contract Drawings when such corrections are necessary for the proper expression of their intent. Such corrections shall take effect from the time that the Engineer gives notice thereof, and any alterations in the work rendered necessary thereby shall be made as corrected. Any conflict between the approved Contract Drawings and Specifications, or any disagreement in measurements upon the Contract Drawings, must be submitted to the Engineer before construction of the work.

1.38 Safety Provisions:

The safety provisions of applicable laws, building and construction codes, and the safety codes approved by the State Labor Commissioner shall be observed.

The provisions of the Federal Occupational Safety and Health Administration's "Occupational Safety and Health Standards" and "Safety and Health Regulations for Construction" shall be observed.

Should, at any time during the work under this Contract, any Local/State or Federal safety inspector visit the site for the purpose of a safety inspection, the contractor shall immediately notify the Engineer's representative on the job site.

The contractor shall employ watchmen on the work as necessary and shall erect and maintain such strong and suitable barriers and such lights as will effectually prevent the happening of any accident to health, limb or property. Lights shall be maintained between the hours of sunset and sunrise and during periods of low visibility.

Safety, including, but not limited to, the safety of the employees of the contractor, their suppliers and sub-contractors, the public, motorists, employees of the City, the Engineer and their Agents in, on, or about the site, is sole and exclusive responsibility of the contractor alone. The contractor's methods of work performance, superintendence of the contractor's employees and traffic safety sequencing of construction are also the sole and exclusive responsibilities of the contractor alone.

The contractor shall indemnify, defend and hold the City and the Engineer harmless from any claim or liability for injury or loss arising from the City or Engineer's alleged failure to exercise site safety responsibility.

The contractor shall make the City and Engineer additional insureds under the contractor's general liability insurance policy which insurance protection shall be primary protection for the City and the Engineer.

1.39 Working Hours, Night Work, Saturdays, Sundays and Holidays:

Night work or work on Saturdays, Sundays or legal holidays will not be permitted except for emergencies or as specified elsewhere.

1.40 Access to Site:

The Contractor shall make every effort to minimize damage to all access routes, and he shall be required to restore them to their original condition. The Contractor shall acquire all necessary permits for working in, on, or from public streets or rights-of-way and for securing additional access rights thereto.

All costs of the removal and restoration to original condition of walls, fences, structures, utility lines, poles, guy wires or anchors, and other improvements required for passage of the Contractors equipment shall be borne by the Contractor. The Contractor shall notify the proper authorities of the Local Government and all utilities of any intended modification or disruption to their property prior to the start of construction and shall cooperate with them in the scheduling and performance of his operation.

If the Contractor by direct negotiation and bargain with any land owner, lessee or tenant, has secured for himself any right to use more space or greater privileges than the space provided by the City for purposes incidental to the performance of the Contract, he shall, upon request of the Engineer, furnish to the Engineer proper evidence that such additional rights have been properly secured and assurance that no damage to or claim upon the City will arise therefrom. The City shall not be liable in any way for any expense incurred by the Contractor in securing any such right to use additional property.

The Contractor shall be responsible for and reimburse the City and others for any and all losses, damage or expense which the City or those others may suffer, either directly or indirectly or through any claims of any person or party, for any trespass outside the spaces and rights-of-way provided by the City to the Contractor or any violation or disregard of the terms and conditions established for the use or occupancy of those rights or for negligence in the exercise of those rights.

The City may retain or deduct from any sum or sums due or to become due to the Contractor such amount or amounts as may be proper to ensure the City against loss or expense by reason of the failure of the Contractor to observe the limits and conditions of the rights-of-way, rights-of-access, etc. provided by the Town.

1.41 Weather Conditions/Work in Freezing Weather:

In the event of temporary suspension of work, or during inclement weather, or whenever the Engineer shall direct, the Contractor will, and will cause his subcontractors to, protect carefully his and their work and materials against damage or injury from the weather. If, in the opinion of the Engineer, any work or materials shall have been damaged or injured by reason of failure on the part of the Contractor or any of his subcontractors to so protect his and their work, such materials shall be removed and replaced at the expense of the Contractor.

Unless written permission is given, work liable to be affected by frost or freezing shall be suspended during freezing weather. When work proceeds under such a condition, the Contractor shall provide approved facilities for heating the materials and for protecting the finished work.

1.42 Intoxicating Liquors:

The Contractor shall neither permit nor suffer the introduction or use of intoxicating liquors upon or about the work specified in this Contract or upon any of the grounds occupied by him or by his employees.

1.43 Indemnity Clause:

The Contractor and his subcontractors shall, during the performance of this work, take necessary precautions and place proper guards for the prevention of accidents; shall keep up all night suitable and sufficient lights and barricades; shall fully comply with the Occupational Safety and Health Act of 1970 and all other Local, State and Federal Regulations, including any and all amendments, revisions and additions thereto; and shall indemnify and save harmless the City and the Engineer and their employees, officers and agents from any and all claims, suits, actions, fines, fees, damages, and costs to which they may be put by reason of death or injury to all persons and/or for all property damage of another resulting from non-compliance.

1.44 Non-Federal Labor-Standards Provisions:

- a. General Provisions: The following Non-Federal Labor-Standards Provisions, including the following provisions concerning maximum hours of work, minimum rates of pay, and overtime compensation with respect to the categories and classifications of employees hereinafter mentioned are included in this Contract pursuant to the requirements of applicable State or Local laws, but the inclusion of such provisions shall not be construed to relieve the Contractor or any subcontractor from the pertinent requirements of any applicable Federal Labor-Standards Provisions. The limitations, if any, in these Non-Federal Labor-Standards Provisions upon the hours per day, per week or per month which employees engaged on the work covered by this Contract may be required or permitted to work thereon shall not be exceeded.
- b. Other Stipulations: The execution of the Contract by the Bidder binds him to all applicable State Labor Laws and Regulations. All such regulations and laws shall be binding to the same extent as if they were copied at length herein.

1.45 Prevailing Wage Rates:

Connecticut General Statutes (Section 31-53) (g) The provisions of this section shall not apply where the total cost of all work to be performed by all contractors and subcontractors in connection with new construction of any public works project is less than four hundred thousand dollars or where the total cost of all work to be performed by all contractors and subcontractors in connection with any remodeling, refinishing, refurbishing, rehabilitation, alteration, or repair of any public works project is less than one hundred thousand dollars.

Schedule of Prevailing Wage Rates: When the contract amount will exceed \$100,000.00, the City will provide a copy of the Schedule of Prevailing Wage Rates. As required by law, rates shall be at least ten (10) days but not more than twenty (20) days prior to the date of advertisement for bid.

1.46 Maintenance:

- a. Except as may have been provided otherwise for a particular job, the Contractor shall keep and maintain the whole of the work constructed by him in good order and repair for a period of not less than one year from the date of completion of the construction of the entire work. Parts of the work may have been virtually completed prior to the completion of the whole work, and have been maintained by the Contractor pending completion of the whole, but such maintenance of any part first built shall not diminish the duty of the Contractor to maintain the whole for one year following completion of the whole. In the event that the surfaces or premises which were disturbed by the Contractor or the construction is not in good order at the end of that period of one year, he shall continue to maintain them or it until such time as they all have been put into and are in good order. The Contractor shall repair promptly all failures in the construction and operation of the work which may occur or become evident before the expiration of said maintenance period, and all defects of sewers, drains, pipes, conduits, curbs, walks, street or road surfaces, land surfaces, turbing, embankments covering the sewer, or of any structures on the line of the work or adjacent thereto, occurring before the expiration of such maintenance period and caused or affected by any work or operation incidental to the Contract.

The Contractor shall save the City of Torrington and the State of Connecticut harmless from all cost and expense arising directly or indirectly from any failure or defect or from the failure of the Contractor to rectify the same, or any act or omission of the Contractor incidental thereto during the maintenance period described in the preceding section. He shall provide adequate insurance to secure such risks, and satisfactory certificates that such insurance has been provided.

- b. Immediately following rainstorms, winter thaws, and similar occurrences which may give rise to settlement of fills, earth movements, etc., and at other times as needed during the time the Contractor is liable for the maintenance and repair of the work, the Contractor shall inspect the premises and work and ascertain what, if any, repairs are needed, and what fills have settled or similar incidents occurred which need attention. While the Engineer or City, Town or State highway agents may, from time to time, notify the Contractor that such incidents have occurred or that conditions exist needing their attention, such notice by the Engineer and others will have been given in the interest of the City, Town, State or other party, and no obligation shall rest upon the Engineer, City, Town, or State agent under this Contract to give such notice. Failure on the part of the Engineer or other public officer or other party to notify the Contractor of any incident or circumstance needing repair, refilling, or similar service under the maintenance provisions of the Contract shall in no way relieve the Contractor of any part of his duties under the maintenance provisions of the Contract and Specifications.
- c. The Engineer may, from time to time during the construction and/or prior to the end of the maintenance period, notify the Contractor that repairs are needed, defects exist which should be corrected, fills have settled, and that roadways, walks, etc. are unsafe or inadequately protected by barricades, lights or other means. Upon receipt of such notice from the Engineer, the Contractor shall immediately proceed to make the repairs, correct the defect, refill the settlements, or make safe the road, walk or whatever needs attention, if such work is within the obligations of the Contractor under this Contract.

- d. If, after the Engineer has given notice to the Contractor to make any repairs, correct any defects, fill any settlement, render a road or walk safe, etc., the Contractor shall fail to do so within a reasonable time thereafter, the City may cause such repairs to be made, defects corrected, fills made, roads and walks made safe, etc., by such persons or means as it may elect, and the Contractor shall reimburse the City for any expense incurred by it in performing such work or services. The City may deduct from any sum or sums due or to become due to the Contractor such sum or sums as may be proper to reimburse the City for such expense or expenses, or may collect the costs of such work by other means.

- e. If, in the opinion of the Engineer, at any time while the Contractor is responsible for the work or maintenance thereof, an emergency exists because there are not adequate barricades, lights, signs, etc., to warn and protect the public and/or persons or property in the vicinity of the work, or that the work under construction, or other adjacent streets, grounds or structures are in acute danger of damage or injury by reason of inadequate shoring, sheeting, bracing, drainage, protection or other proper precautions which it is the duty of the Contractor to provide or to have provided; or that a street, road, walk or other premises are unsafe by reason of any settlement of any filling placed by the Contractor, or any defect in the work or surface over backfilled trenches, or is unreasonably obstructed, the Engineer may direct the Contractor or the Contractor's representative to remedy the difficulty immediately; to furnish and erect the needed barricades, lights or signs; to furnish and set adequate sheeting, shoring and bracing; to provide adequate pumps and drainage facilities; to fill settlements; to smooch roads, streets, walks or grounds; or to perform similar urgently needed services.

If the Contractor or his representative is not present or is not immediately available or able to receive such orders or to perform emergency services needed, or fails to act following such notice, the Engineer, acting for the City, may, by such persons and means as he deems proper and as are available, take such measures as may reasonably be needed to protect the public, the work, and adjacent persons and property from acute danger of immediate loss, injury or damage. The Contractor shall reimburse the City for the expense of any and all such emergency protective measures, and the City may deduct from any sum or sums as may be sufficient to reimburse the City for its expense for such emergency work.

- f. Giving notice, or failure to give notice, or acting as authorized in the preceding section, or failure to so act on the part of the Engineer, or any question as to the adequacy of the notice by the Engineer, or of his acts or those of the City as provided in those sections, shall not, in any way, relieve the contractor from any part of his responsibility or liability for performing any and all of the acts and assuming any and all of the risks, duties and liabilities which the Contractor is obligated to perform or assume.

1.47 Occupational Safety and Health Standards – Excavations:

- a. The Contractor shall abide by all Local, State and Federal laws/regulations/standards. These include Occupational Safety and Health Standards (OSHA) 29 CFR, Part 1926;, Subpart P-Excavations, as published in the Federal Register/vol. 54, No. 209, October 31, 1989, pages 45959 through 45991 inclusive including all revisions thereto. These standards are made part of this Contract by reference.

- b. Within these OSHA standards, where the term "Competent Person" is used, it shall mean authorized representative of the Contractor who has the capabilities as defined under Section 19926.650 of OSHA.

- c. The Contractor shall designate a qualified and experienced safety representative at the site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervision of safety precautions and programs.
- d. The Contractor shall insure that a "Competent Person" remains on the job at all times construction is in progress.
- e. The Contractor is solely responsible for citations of safety violations by any Local, State or Federal agency. If penalties are assessed against the Engineer or the Owner for the Contractor's safety violations, the Contractor shall bear the burden at no extra cost to the Owner.
- f. There shall be no specific payment for compliance with safety specifications.
- g. The Engineer must be given a safe work area at all times. The Contractor shall supply the Engineer with all safety equipment including, but not limited to, safety harness, atmospheric monitor, artificial ventilation, etc. and all other equipment which may be required by OSHA. The cost of this equipment shall be included in the general cost of the work. Should a non-compliant condition exist, the Engineer is authorized to withhold payment for work unavailable for inspection due to such non-compliance.

E. SUPPLEMENTARY CONDITIONS

SECTION 00405

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END OF SECTION

SECTION 00410

SUPPLEMENTARY CONDITIONS

SC-01 CONTRACT DOCUMENTS, ENUMERATION OF PLANS, SPECIFICATIONS AND ADDENDA

1.1 Following are the Plans, Specifications and Addenda, which form a part of this Contract as set forth in Article 1 of the General Conditions.

1.2 Drawings:

Title: "Proposed Sanitary Sewer Repair at Eastwood Rd."

1.3 Specifications:

Documents and Specifications for the "SANITARY SEWER REPAIR AT EASTWOOD RD", Torrington, Connecticut

INVITATION TO BID
INFORMATION FOR BIDDERS
BID FORMS
CONTRACT FORMS
GENERAL CONDITIONS
SUPPLEMENTARY CONDITIONS
TECHNICAL SPECIFICATIONS
ADDENDA

SC-02 INSURANCE

2.1 Contractor's and Subcontractor's Public. Liability, Property Damage, Vehicle Liability and owner's Protective Liability Insurance shall be in the minimum combined Single Limit amounts shown below:

Limits of Insurance shown, on Pages 35 to 38 of the Contract Documents.

2.2 Insurance shall provide adequate protection against the following special hazards:

- a. Blasting or explosion;
- b. Collapse of trench walls and underground damage;
- c. Use of all equipment, tools and vehicles.

This insurance shall include The OWNER and ENGINEER as named insureds.

SC-03 TAXES

- 3.1 Purchases made for the City of Torrington, Connecticut are considered exempt from the payment of Federal Excise Taxes, Connecticut Sales Taxes, etc. and such taxes must be identified separately or excluded from the bid prices.

SC-04 PIPE LOCATIONS

- 4.1 Sewers and exterior pipelines will be located substantially as indicated on the drawings, but the ENGINEER reserves the right to make such modifications in locations as maybe found desirable to avoid interference with existing structures or for other reasons. Where fittings are noted on the drawings, such notation is for the CONTRACTOR'S convenience and does not relieve him from installing different or additional items where required.

SC-05 UTILITIES

- 5.1 The CONTRACTOR shall protect and support these utilities where their existing location, in the opinion of the ENGINEER, does not interfere with installation of the proposed work, but does require some special handling. The cost for protection and support of utilities shall be included in the Lump Sum Price bid for "Protection of Existing Utilities". Any cost of temporary relocations for the CONTRACTOR's convenience shall be paid for by the CONTRACTOR.
- 5.2 The CONTRACTOR shall sustain in their places and protect from direct or indirect injury, all utilities, pipes, poles, conduits, walls, buildings, and other structures and property in the vicinity of his work. Such sustaining and protecting shall be done carefully by the CONTRACTOR and as required by the party owning or controlling the structure. Before proceeding with such work, the CONTRACTOR shall submit written documentation that the methods and procedures to be used have been approved by the party owning said structure.

The CONTRACTOR shall take all risks attending the presence or proximity of pipes, poles, conduits, walls, buildings, wires or other structures, utilities, and property in the vicinity of his Work and he shall be responsible for all damage and assume all expense for direct or indirect injury caused by his Work to any of them or to any person or property by reason of injury to them.

Guard rails, posts, guard cables, signs, poles, markers, mailboxes, fences, walls and stone walls, etc., which are temporarily removed to facilitate installation of the sewer, shall be replaced and restored in their original condition to the satisfaction of the OWNER or ENGINEER.

- 5.3 The CONTRACTOR shall notify the utility companies and **Call Before You Dig** two full working days prior to construction, in any specific location. Telephone: 1-800-922-4455
- 5.5 The CONTRACTOR shall make all arrangements with the utility companies for temporary and permanent services and pay all costs to provide the complete services subject to the conditions further described herein, and in the various technical specifications. Utility companies in the area are as follows:

Electric Service

Mr. Stephen J. Klubnik
ENGINEERING Manager-T&D Systems Projects
NE Utilities 107 Selden Street Berlin, CT 06037
Phone 860-665-2473
FAX 860-665-2820

Mr. James Kennedy, Supv'r
CL&P
PO Box 658
Torrington, CT 06790
860-496-5278

Gas Service

Mr. Edward Flanagan, Manager-Capital Construction
Yankee Gas Company
47 Eagle Street
Waterbury, CT 06708
203-596-3117
FAX 203-596-3130

Telephone Services

Mr. Frank Bertuca
SNET
1441 North Colony Road - 1st Floor
Meriden, CT 06450
PHONE 203-238-5657

Water

Mr. Steve Cerrutto, Operations Manager
Torrington Water Company
P.O. Box 867
Torrington, CT 06790
PHONE 489-4149
FAX 496-7889

Cable TV

Mr. Ben Spielman, Outside Plant Manager
Cablevision of Litchfield
622 Torrington Road
Litchfield, CT 06759
PHONE 567-3043

SC-06 CONNECTING TO EXISTING WORK

- 6.1 The CONTRACTOR shall remove such existing masonry, concrete, equipment and piping as is necessary in order to make the proper connections to the existing work at the locations shown. Also, he shall make the necessary pipeline, roadway and other connections at the several points in order that on completion of this CONTRACT, water, sewage or storm water, as the case may be, will flow through the several pipe lines and structures, as originally intended. Unless otherwise specified herein, no extra payment will be made for this Work, but the entire cost of the same shall be included in the unit or lump sum prices bid for the various items of the Work to be done under this CONTRACT.

SC-07 CONTROL OF EXISTING FLOWS

- 7.1 During the construction of all proposed Work, the CONTRACTOR shall take every precaution and do the necessary work to maintain the flow of storm drainage, sanitary sewage and natural flows through the working areas. The CONTRACTOR is solely responsible for providing his flow control system and there shall be no separate payment for the required Work.
- 7.2 The CONTRACTOR shall be responsible for any flooding or sanitary backup on his Work and to the property owners affected by such flooding or backup. The

CONTRACTOR shall make such provisions as may be required by the local, state or federal health officers or any other public bodies with jurisdiction over the flow of storm drainage, sanitary sewage and natural flows.

- 7.3 In the event the CONTRACTOR uses water from natural water sources for his operations, intake method shall be such as to create no harmful effects; and where water is taken from a stream, reasonable flow downstream from the intake shall be maintained.
- 7.4 Prior to initiating construction, the CONTRACTOR shall submit his methods of flow control to the ENGINEER for approval, and receive said approval prior to commencing his operations.
- 7.5 The CONTRACTOR shall be entirely and solely responsible for the adequacy and sufficiency of all flow control measures necessary for completion of the proposed work. The CONTRACTOR shall be responsible for maintaining flow of the existing sanitary sewers throughout the entire project. The CONTRACTOR shall assume that the existing system is flowing at full capacity.

SC-08 PERMITS

- 8.1 The CONTRACTOR will be required to obtain permits from the municipality wherein the Work is located (the City of Torrington) as necessary and to pay all costs incidental to such permits.

SC-09 "AS-BUILTS"

- 9.1 AS-BUILT Drawings will be maintained by the CONTRACTOR during the course of work. The CONTRACTOR'S personnel will be required to obtain and document the necessary measurements. The complete set of AS-BUILT drawings will be given to the ENGINEER at the completion of the work.

It will be the CONTRACTOR'S responsibility to see:

- a. that at least two tying measurements are or have been taken from the end of each lateral and manholes to physical objects shown on the Contract Drawings which will remain undisturbed by construction;
- b. that the invert elevation at the end of each lateral is or has been taken;
- c. that all wyes and tees, including those for the laterals, are or have been located by station measured upstream between adjacent manholes with the downstream manhole station 0+00 and that the size, invert elevation and direction of the wye or tee outlet is or has been obtained.

- d. that all chimneys are or have been located as in c. with the inverts and sizes of all wyes and tees therein stated;
- e. that the type, horizontal extent by centerline station and offsets to the sheeting faces, cut-off elevation and depth of all sheeting left-in-place is or has been located;
- f. that similar measurement and requirements are or have been obtained for all underground utility installations;
- g. that any notes of these requirements taken by the CONTRACTOR shall be submitted to the ENGINEER.

SC-10 SEQUENCE OF OPERATIONS

- 10.1 Prior to construction, the CONTRACTOR shall submit to the ENGINEER a complete construction schedule and proposed sequence of operations. Said schedule and sequence shall include work by others, such as, but not limited to, work to be performed by the Torrington Water Company, Northeast Utilities (CL&P), Yankee Gas Service Co., etc.

The CONTRACTOR is advised that the following items shall be incorporated into his sequence of operations:

- a. Maintaining existing sanitary sewer flows;
- b. Abandoning existing structures and pipes;
- c. Connecting proposed sanitary sewer to existing sanitary sewer;

SC-11 WORK ON PRIVATE PROPERTY

- 11.1 It shall be the CONTRACTOR'S full responsibility to familiarize himself with the limitations imposed on construction within the various properties of public or private ownership and rights-of-way by the existing occupancy or use. To this end, he will be required to make every effort to fully and satisfactorily protect trees, shrubs, lawns, gardens, fences, walks, driveways, structures and any and all other appurtenances of the property owners. In addition, he shall provide adequate access to all walks, driveways, yards or structures; protect all work by the erection or placing of safety guards or barriers, lights and other such incidentals; and where required, the CONTRACTOR shall construct temporary plank crossings of timbers to permit full use of private facilities at all times, at no additional expense to the owner. All other applicable provisions for control of work within the areas of public travel set forth elsewhere herein shall also apply to work within the limits of private

ownership. The scheduling of all work on easements shall be approved by the ENGINEER.

- 11.2 No separate payment will be made for the requirements specified under “Work on Private Property” and all costs in connection therewith shall be included in the prices stipulated for the appropriate items for work as listed in the bid.

SC-12 ORDER OF CONSTRUCTION, CONSTRUCTION SCHEDULE AND SPECIAL REQUIREMENTS

- 12.1 When constructing a new sewer in a location where existing buildings are serviced by the existing sewer system, maintenance of these existing services is a requirement of the CONTRACT until such time as the immediate downstream sewer becomes operational as determined and approved by the ENGINEER.
- 12.2 The provisions of Article 50 of the General Conditions (Beneficial Occupancy), if agreed upon by the OWNER, and CONTRACTOR, shall be waived in whole or in part as necessary, if the use of newly installed sections of pipeline is essential to the installation of remaining pipeline and the timely progress of the project. Such waivers shall not be the basis of extra work claims by the CONTRACTOR and the use of the pipeline shall be at no additional expense to the OWNER.
- 12.3 To accomplish these requirements, the order of construction shall be discussed with the ENGINEER well in advance of construction and shall meet with his approval. The CONTRACTOR, prior to starting work, shall submit to the ENGINEER a written description of the methods he plans to use in doing the work and a detailed construction schedule, including the costs for each item of Work, with expected dates of beginning and completion of the various parts of the project.

SC-13 SEPARATE CONTRACTS

- 13.1 The CONTRACTOR shall coordinate his operations with those of other contractors. Cooperation will be required in the arrangement for the storage of materials and in the detailed execution of the work. The CONTRACTOR, including any of his Subcontractors, shall keep informed of the progress and the detail work of other contractors and shall notify the ENGINEER immediately of lack of progress or defective workmanship on the part of other contractors. Failure of a CONTRACTOR to keep informed of work progressing on the site and failure to give notice of lack of progress or defective workmanship by others shall be construed as acceptance by him of the status of work as being satisfactory for proper coordination with his own work.

SC-14 TREE PROTECTION

14.1 All trees, designated by the ENGINEER and especially those noted on the drawings shall be protected from damage by the following methods:

a. Where directed by the ENGINEER, the CONTRACTOR shall obtain the services of a registered arborist to determine procedures for maintaining stability and health of all trees in the areas of construction.

b. On private property easements, the CONTRACTOR may be required to use smaller equipment in order to preserve as much shrubbery and tree stability as possible.

SC-15 SUBSURFACE CONDITIONS

15.1 The soil borings and /or probes **if available** show the type of material found at the exact locations taken and do not necessarily indicate the type of soils or ground water levels to be encountered in the performance of the work. It shall be the responsibility of the CONTRACTOR to determine for himself annual and seasonal variations in ground water levels, which may affect his work. Each bidder is expected to examine the site and the compiled record of investigations and information and then, based upon his own inspections, interpretations and such other investigations as he may desire, decide for himself the character of material to be encountered and excavated, the suitability of the materials to be used for backfilling and such other purposes, ground water conditions, difficulties or obstacles likely to be encountered, and other conditions affecting the work.

15.2 Borings are not intended as representations or warranties and it is expressly understood that neither the OWNER, nor the ENGINEER will be responsible for the accuracy thereof nor for any interpretations of conclusions drawn there from by the CONTRACTOR.

SC-16 SIGNS

16.1 Project Sign **not required**.

SC-17 SCHEDULE OF WAGES

17.1 It is anticipated that the total sum of this project will fall under the \$100,000 prevailing wage threshold and therefore prevailing wages will not apply.

SC-18 PRE-CONSTRUCTION VIDEOS

18.1 A Pre-condition video **shall not** be required for this project. .

SC-19 NO DAMAGE FOR DELAYS

19.1 The CONTRACTOR agrees to prosecute the WORK continuously and diligently and no charges or claim for damages shall be made by him for any delays or hindrances from any cause whatsoever during the progress of any portion of the services specified in this CONTRACT. Such delays or hindrances, if any, may be compensated for by an extension of time for such reasonable period as determined by the ENGINEER. Time extensions will be granted only for excusable delays beyond the control of the CONTRACTOR and without the fault or negligence of the CONTRACTOR.

SC-20 SHOP DRAWINGS

20.1 The following Shop Drawings, but not limited to, shall be submitted prior to construction:

1. Pipe and Fittings;
2. Pre-cast Concrete Manholes;
3. Identification Tape;
4. Material Certifications;
5. Invert Brick;
6. Other.

SC-21 CLEANUP AND DUST CONTROL

a. Throughout all phases of construction, including suspension of work and until final acceptance of the project, the CONTRACTOR shall keep the work site clean and free from rubbish and debris. The CONTRACTOR shall also abate dust nuisance by cleaning, sweeping and sprinkling with water, application of calcium chloride or other means as necessary. The use of water resulting in mud on public streets will not be permitted as a substitute for sweeping or other methods.

b. Application of calcium chloride or water for dust control shall be done in accordance with the applicable sections of the detailed specifications.

c. When directed by the ENGINEER, the CONTRACTOR shall furnish and operate a self-loading motor sweeper with spray nozzles to keep paved areas acceptably clean wherever construction, including restoration, is incomplete.

d. Materials and equipment shall be removed from the site as soon as they are no longer necessary. Upon completion of the work and before final inspection, the entire work site shall be cleared of equipment, unused material and rubbish so as to present a clean and neat appearance.

e. Care shall be taken to prevent spillage on haul routes. Any such spillage shall be removed immediately and the area cleaned.

f. Excess excavated material shall be removed from the site immediately. Sufficient material may remain for use as backfill if permitted by the Specifications. Forms and form lumber shall be removed from the site as soon as practicable after stripping.

g. Failure of the CONTRACTOR to comply with the ENGINEER's cleanup orders may result in an order to suspend work until the condition is corrected. No additional compensation will be allowed as a result of such suspension.

h. There will be no separate payment for cleanup or water for dust control. All costs associated with this Section will be included in the unit prices bid for the various items of work. Calcium Chloride for Dust Control will be paid for at a negotiated price if required.

SC-22 SURPLUS MATERIAL

The CONTRACTOR shall dispose of all surplus material beyond the limits of this project at no cost to the City.

SC-23 EMERGENCY VEHICLES

The CONTRACTOR shall conduct his operations in such a manner so that continuous egress will be provided for emergency vehicles to all buildings on the site. The CONTRACTOR shall update the Police and Fire Departments and ambulance services daily with regard to his scheduled activities for the day and the traffic pattern that will be in effect.

SC-24 REMOVAL OF EXISTING FRAMES, GRATES, COVERS AND CATCH BASIN HEADS

All frames, grates, covers and catch basin heads that are to be removed because of abandonment of existing manholes or catch basins or for other reasons shall be

handled carefully so they may be reused. The CONTRACTOR shall deliver all existing frames and covers to the Torrington WPCA Treatment Facility.

SC-25

SOIL EROSION AND SEDIMENTATION CONTROL

The CONTRACTOR shall place synthetic filter barriers and/or baled hay barriers as shown on the plans or as directed by the ENGINEER to minimize the pollution, sedimentation or introductions of impurities that may become suspended or dissolved in waters reaching streams, ponds, lakes or other water bodies and inland wetland areas.

"Guidelines for Soil Erosion and Sediment Control", January 1985 will be followed.

1. The existing natural drainage patterns and vegetative cover shall be preserved to the maximum possible extent.
2. Construction equipment used to trench should be of a type that does not damage adjacent areas and minimizes the need for and size of access roadways.
3. Construction should be performed in such manner so as to keep land grading and disturbances to a minimum.
4. Watercourse elevations within the construction site should be restored. Channels should be cleaned and cleared of sediment and debris.
5. Excess excavated materials and other debris should not be stored or disposed of within the adjacent watercourses or wetland areas.
6. Any construction roads built during construction shall be removed and all grade elevations shall be restored to original condition.

Stabilization

Construction areas shall be re-vegetated and/or adequately protected from subsequent erosion immediately following construction. Erosion control blanket shall be installed where directed by the ENGINEER.

Existing and new catch basins which may be subject to sedimentation during construction shall have baled hay barriers placed around the grates to minimize said sedimentation as directed by the ENGINEER.

Stockpiled areas of road building material shall be contained by synthetic filter barrier on the downslope side.

All costs in connection with the above work will be included in the general cost of the contract, except for synthetic filter barrier, which will be paid for at the contract unit price bid in the proposal when installed as directed by the ENGINEER.

SC-26 WINTER SHUTDOWN

The CONTRACTOR will not be required to suspend operations during the winter months. However, any activities that are temperature and/or weather sensitive, including but not limited to, seeding and paving will only be completed during the appropriate time frame.

SC-27 SNOW REMOVAL

It shall be the CONTRACTOR's responsibility to remove any and all snow that accumulates on the jobsite, that hinders his operations, safe passage through the site, inspection of work, and access of emergency vehicles.

E. TECHNICAL SPECIFICATIONS

TECHNICAL SPECIFICATIONS FOR

“SANITARY SEWER REPAIR AT EASTWOOD RD”

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03005 UTILITY CONFLICT RESOLUTION	03005-01 – 03005-02

SECTION 01005

SUMMARY OF WORK

PART 1 - GENERAL

1.01 CONTRACT DOCUMENT

The general provisions of the CONTRACT, including General and Supplementary Conditions and General Requirements, apply to the work specified in this subsection.

1.02 SPECIFICATION ARRANGEMENT

Titles to and arrangements of sections and paragraphs in these specifications are used merely for convenience and shall not be taken as a correct or complete segregation of the several categories of materials, equipment and labor, nor as an attempt to outline or define jurisdictional procedures.

1.03 INTENT

The entire work provided for in the Technical Specifications and on the Drawings shall be constructed and finished in every respect in a good, workmanlike and substantial manner. All parts necessary for the proper and complete execution of the Work whether the same may have been specifically mentioned or not, or indicated in a manner corresponding with the rest of the Work as if the same were particularly described and specially provided for herein. It is not intended that the Drawings shall show every detailed piece of material or equipment, but such parts and pieces as may be in accordance with the best practices and regulatory requirements, even though not shown, shall be furnished and installed. All materials and equipment shall be new unless specifically stated otherwise in these CONTRACT DOCUMENTS.

1.04 SCOPE

The work required by these specifications shall include furnishing all labor, skill, supervision, tools, construction plant, equipment and materials and performing all operations necessary for the properly completed CONTRACT work as shown on the specification drawings, as mentioned in these Specifications and as required, to the complete satisfaction of the CITY and their authorized representatives.

1.05 PROJECT DESCRIPTION

The work involves the construction of the following:

The work is comprised of furnishing all equipment, labor, material, and superintendence to perform all work necessary reconstruction of a sanitary sewer, at various locations located within the City and associated restoration work.

END OF SECTION

SECTION 01010

CONTRACT DRAWINGS

PART 1 - GENERAL

1.01 CONTRACT DOCUMENT

The general provisions of the CONTRACT, including General and Supplementary Conditions and General Requirements, apply to the work specified in this subsection.

1.02 CONTRACT DOCUMENT DRAWINGS

The drawings listed in the Supplementary Conditions may be modified by addenda and will be issued for construction purposes. These drawings may be supplemented or superseded by such additional general and detail drawings as may be necessary or desirable as the work progresses. The drawings issued for construction at that time or after the signing of the CONTRACT DOCUMENTS will become the Contract Drawings.

1.03 EXISTING AND ADJACENT CONDITIONS

Wherever existing conditions or construction not required as part of the work of the CONTRACT are shown, they are so shown as a source of information only. The CITY, while believing such information is substantially correct, assumes no responsibility therefore. Before starting any work that might be affected by such existing construction or conditions, the CONTRACTOR shall have made himself familiar with all conditions affecting the nature and manner of performing the Work and shall not be entitled to any extra compensation for any Work or expense arising from or caused by his neglect to have verified all existing conditions and requirements.

1.04 DIMENSIONS

The Drawings are made to scale, but all working dimensions shall be taken from the figured dimensions or by actual measurements at the work site, and in no case by scaling the prints. The CONTRACTOR shall study and compare all Drawings and verify all figures before laying out or constructing the Work and shall be responsible for any and all errors in the CONTRACT Work which might have been avoided thereby. Whether or not an error is believed to exist, deviations from the Drawings and the dimensions given thereon shall be made only after approval in writing is obtained from the ENGINEER. The CONTRACTOR shall take all

measurements of existing established conditions notwithstanding the figured dimensions on the drawings. When figured dimensions are not in agreement with the CONTRACTOR's measurements, the ENGINEER shall be immediately notified and the ENGINEER will promptly adjust the same.

1.05 DISCREPANCIES

If the CONTRACTOR during the progress of the Work discovers any discrepancies between the Drawings and the specifications, any errors or omissions on the Drawings, or any discrepancies between the physical condition of the Work and the Drawings, the CONTRACTOR shall immediately notify the ENGINEER, who will promptly adjust the same. Any Work performed after such discovery without the approval of the ENGINEER shall be at the risk and expense of the CONTRACTOR.

1.06 DIAGRAMMATIC DRAWINGS

- A. Plans or drawings where the Work is shown diagrammatically indicate approved working systems. Every piece of material, fittings, fixtures or small equipment is not shown nor every difficulty or interference that may be encountered. To carry out the true intent and purpose of the CONTRACT DOCUMENTS, all necessary parts to make complete, approved working systems or installations shall be included as if detailed on these Drawings.
- B. The location of equipment, shown on the Drawings, unless exactly dimensioned, shall be considered as approximate only. The CONTRACTOR shall adjust the position of the equipment in accordance with good working practices to meet interferences, provide proper clearance and provide proper access space for operation and maintenance.

1.07 TYPICAL DETAILS

Where shown on the Drawings, typical details shall apply to each and every item of the CONTRACT Work where such items are incorporated and the detail is applicable. Unless noted otherwise, such typical details shall be applicable in full.

END OF SECTION

SECTION 01015

ABBREVIATIONS AND STANDARDS

Wherever reference is made in this CONTRACT to the standard of any technical society or other recognized organization, these shall be construed to mean the latest standard adopted and published at the date of advertisement for bids.

Abbreviations are defined as follows:

A.I.A.	- American Institute of Architects
A.I.S.C.	- American Institute of Steel Construction
A.W.W.A.	- American Water Works Association
A.S.T.M.	- American Society for Testing and Materials
A.N.S.I.	- American National Standards Institute
A.S.A.	- American Standards Association
A.C.I.	- American Concrete Institute
A.A.S.H.T.O.	- American Association of State Highway and Transportation Officials
A.C.P.A.	- American Concrete Pipe Association
A.S.M.E.	- American Society of Mechanical Engineers
C.I.P.R.A.	- Cast Iron Pipe Research Association
C.I.S.P.I.	- Cast Iron Soil Pipe Institute
I.E.E.E.	- Institute of Electrical and Electronics Engineers
N.C.P.I.	- National Clay Pipe Institute
N.E.M.A.	- National Electrical Manufacturer's Association
Fed. Spec.	- Federal Specifications issued by the Federal Supply Service of the General Service Administration, Washington, D.C.
D.O.T.	- Connecticut Department of Transportation
C.I.	- Cast Iron
D.I.	- Ductile Iron
V.T.	- Vitriified Tile
P.V.C.	- Polyvinyl Chloride
R.C.P.	- Reinforced Concrete Pipe
N.B.S.	- National Bureau of Standards
N.E.C.	- National Electrical Code
S.S.P.C.	- Steel Structures Painting Council
U.S.A.S.	- Standards approved by the United States of American Standards Institute

END OF SECTION

SECTION 01090

REFERENCES

PART 1 - GENERAL

1.01 SPECIFICATIONS AND STANDARDS

- A. "Reference Specifications", where used in this text, shall mean the Standard Specifications for Construction of Roads and Bridges and Incidental Construction, Form 816 or latest edition, published by the Connecticut Department of Transportation.
- B. In any situation where the project Technical Specification is a higher specification, the project Technical Specification will govern.
- C. Standard Specifications, where referred to by abbreviation or otherwise shall form a part of the Contract Documents as if quoted in full. Specifications publishing organizations and their abbreviations included in the Contract Documents shall include, but are not limited to, the following:

A.I.A.	- American Institute of Architects
A.I.S.C.	- American Institute of Steel Construction
A.W.W.A.	- American Water Works Association
A.S.T.M.	- American Society for Testing and Materials
A.N.S.I.	- American National Standards Institute
A.S.A.	- American Standards Association
A.C.I.	- American Concrete Institute
A.A.S.H.T.O.	- American Association of State Highway and Transportation Officials
A.C.P.A.	- American Concrete Pipe Association
A.S.M.E.	- American Society of Mechanical Engineers
C.I.P.R.A.	- Cast Iron Pipe Research Association
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I.E.E.E.	- Institute of Electrical and Electronics Engineers
N.C.P.I.	- National Clay Pipe Institute
N.E.M.A.	- National Electrical Manufacturer's Association
Fed. Spec.	- Federal Specifications issued by the Federal Supply Service of the General Service Administration, Washington, D.C.
D.O.T.	- Connecticut Department of Transportation
C.I.	- Cast Iron
D.I.	- Ductile Iron
V.T.	- Vitrified Tile
P.V.C.	- Polyvinyl Chloride
R.C.P.	- Reinforced Concrete Pipe

REFERENCES

01090-1

N.B.S.	- National Bureau of Standards
N.E.C.	- National Electrical Code
S.S.P.C.	- Steel Structures Painting Council
U.S.A.S.	- Standards approved by the United States of American Standards Institute

D. City of Torrington Standard Drawings shall be used for details of construction not shown on the contract drawings. It is Contractor's responsibility to obtain these drawings from the City. In any case not covered by either of the above, Standard Drawings will govern by the Connecticut Department of Transportation standard drawings.

E. Specifications and Standards referred to shall be the latest available edition.

END OF SECTION

SECTION 01115

MOBILIZATION AND DEMOBILIZATION

PART 1 - GENERAL

1.01 SCOPE OF WORK

The work covered under this item includes the furnishing of all plant, labor, equipment, appliances and materials and in performing all operations in connection with the mobilization/demobilization and maintaining of all plant and equipment for the proper and satisfactory performance of the work under this CONTRACT.

PART 2 - METHOD OF MEASUREMENT

A. This work will be measured for payment in the manner described hereinafter; however, the determination of the total contract price earned shall not include the amount of mobilization earned during the period covered by the current monthly estimate - but shall include amounts previously earned and certified for payment:

1. When the first payment estimate is paid, 50 percent of the lump sum bid price for this item or 5 percent of the total original contract price, whichever is less, will be certified for payment.
2. When 10 percent of the original contract price is earned, 75 percent of the lump sum price of this item or 7.5 percent of the total original contract price, whichever is lesser, minus any previous payment, will be certified for payment.
3. When 30 percent of the total original contract price is earned, 100 percent of the lump sum price for this item or 10 percent of the total original contract price, whichever is lesser, minus any previous payment, will be certified for payment. Upon completion of all work on the project, payment of any amount bid for mobilization in excess of 10 percent of the original contract amount will be paid.

Nothing herein shall be construed to limit or preclude partial payments otherwise provided for by the contract.

PART 3 - BASIS OF PAYMENT

This work will be paid for at the contract lump sum price for "Mobilization & Demobilization" which price shall include materials, equipment, tools, labor, transportation, operations and all work incidental thereto.

END OF SECTION

SECTION 01120

MAINTENANCE AND PROTECTION OF TRAFFIC

PART 1 - GENERAL

1.01 SCOPE OF WORK

- A. The work under this section shall consist of maintaining and protecting traffic in the project area to the satisfaction of the applicable City Traffic Authority and the City Engineer. Unless otherwise specified within the Contract Documents, the Contractor must maintain pedestrian and vehicular traffic.
- B. The Contractor shall provide any traffic control devices as may be necessary in accordance with this specification and the “Manual on Uniform Traffic Control Devices” (MUTCD, Latest Edition), Section 6F, Temporary Traffic Control Zone Devices.

PART 2 - PRODUCTS

2.01 MATERIALS

All signs, barricades and necessary devices shall be of sufficient size and color so as to adequately inform the public of any possible traffic hazards and alternate routes and shall conform to the details as outlined in the MUTCD, Section 6F, titled “Temporary Traffic Control Zone Devices”.

PART 3 - WORKMANSHIP

A. WORK BY OTHERS

The Contractor is advised that he shall coordinate the maintenance and protection of traffic, both vehicular and pedestrian for the entire job. The Contractor shall insure that the provisions provided herein shall be complied with by all parties involved in work on this contract. The Contractor is advised that the CITY may have other project(s) under construction at the time this project is under construction. The Contractor shall, therefore, determine from the CITY if another project is under construction and coordinate his work with the Contractor of the other project(s).

B. MAINTENANCE AND PROTECTION OF TRAFFIC EQUIPMENT

Traffic drums shall be used to separate moving lanes of traffic from the work area. Each drum shall be affixed with high intensity flashers for nighttime operation. Type I barricades shall be used to barricade work zones from operating travel lanes and parking lanes. Each barricade shall be affixed with suitable construction signs.

C. TRAFFIC CONTROL

1. The Contractor shall furnish, light and maintain such signs necessary for the safe regulation or convenience of traffic. Said signs will be as specified on the Contract Drawings or elsewhere herein or, if not specified, they shall be adequate for the regulation, safety and convenience of traffic and in conformance with the applicable requirements of the "Manual on Uniform Traffic Control Devices". All signs shall be subject to the approval of the City Engineer. The Contractor shall provide, erect and maintain suitably lighted barricades, warning lights, etc. as needed or as directed in order to keep people, animals and vehicles from excavations, obstacles, etc. The Contractor shall employ trafficmen/flagmen and take other such reasonable means or precautions as may be needed to prevent damage or injury to persons, vehicles or other property and to minimize the inconvenience and danger to the public by his construction operations. He shall arrange his operations to provide access to properties along the street including temporary bridges to driveways and provide access to fire hydrants, manholes, gate boxes or other utilities. Whenever any trench obstructs traffic in or to any public street, private driveway or property entrance, the Contractor shall take such steps as required to maintain necessary traffic and access, including temporary bridging if required. The Contractor shall confine his occupancy of public or traveled ways to the smallest space compatible with the efficient and safe performance of the work contemplated by the Contract.
2. The Contractor shall observe and obey all local and state laws, ordinances, regulations and permits in relation to the obstruction of streets and highways, keeping passageways open and protecting traffic where there may be danger from blasting or other construction activities.
3. Lighted barriers or barricades in accordance with the MUTCD shall be furnished by the Contractor and put up and maintained at all times during the night and daytime, around all open ditches, trenches, excavations or other work potentially dangerous to traffic.

D. MAINTENANCE OF TRAVEL LANES

1. Two - 10 foot wide travel lanes shall be open to traffic during non-construction hours, weekends, and holidays. When the road is not closed and under detour conditions, a minimum of one - 10 foot wide travel lane shall be open to traffic. The Contractor shall provide adequate lighted barricades. Also, during the above-mentioned times, all driveways shall be accessible to vehicular traffic.

E. ROAD CLOSURE AND STREET DETOUR

Where detours will be required, the City Engineer requires the contractor to submit a proposed detour plan for all portions of the work to the City Engineer and to the Torrington Police Department for approval. This submittal shall be made at least 14 days prior to commencing construction. It shall be the sole responsibility of the contractor to keep the Police and Fire Departments, Ambulance Services and the Board of Education, 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, replace, as necessary, adjust, move, relocate and store all signs, suitable lighted barricades, traffic cones and traffic delineators, as necessary to carry out the traffic routing plan and maintain vehicular and pedestrian traffic. Sign placement and wording to be approved by City Engineer. All of this work shall meet with the requirements of the City Engineer. If additional signs and protection is needed, the total cost shall still be paid by the Contractor.

F. TRAFFIC CONTROL PROCEDURES

The proper and adequate signing of the construction zone and any approved detours is considered of utmost importance. Prior to the start of construction, a signing and barricade plan shall be submitted by the Contractor for review by the City Engineer and Torrington Police Department. Such plans shall show sequence or phases of operations.

PART 4 - BASIS OF PAYMENT

- A. This work will be paid for at the Contract Lump Sum Price for "Maintenance and Protection of Traffic". This price shall include the cost of all flagmen, the cost of all signs and barricades and all flashing lights, flares, lanterns, etc., and all materials, labor and equipment necessary for the maintenance and protection of traffic as specified herein.

This Item will be paid monthly, which cost shall be the Lump Sum Bid Price divided by the number of months allowed for completion of the Contract.

END OF SECTION

SECTION 01205

STORAGE AND PROTECTION

PART 1 - GENERAL

- 1.01 All excavated materials, construction equipment and new materials for the Work shall be placed so as not to injure the Work or endanger persons and to allow free access at all times to all parts of the Work including public utility installations. Materials shall be stored at within the barricaded area in the street or at offsite premises that the Contractor obtains permission to use. Materials shall not be located in the street right of way or on private property without proof of consent of property owner. Location of all stored materials is subject to approval of the ENGINEER.
- 1.02 The City of Torrington owns a small piece of property on the corner of E Pearl St, Britton Ave, and Columbus Rd. The grassed area of this property will be available for the Contractor to Store materials and equipment for the duration of the project. The site shall be restored to it's original condition upon completion of the work.

PART 2 N/A

PART 3 N/A

PART 4 - MEASUREMENT AND PAYMENT

No payment will be made for the above-mentioned items, but shall be included in the overall cost of this contract's unit and lump sum prices bid.

END OF SECTION

SECTION 01210

CLEANING UP

PART 1 - GENERAL

1.01 CONTRACT DOCUMENT

The general provisions of the CONTRACT, including General and Supplementary Conditions and General Requirements, apply to the work specified in this subsection.

1.02 DESCRIPTION

- A. During its progress the Work and the adjacent areas affected thereby shall be kept cleaned up and all rubbish, surplus materials and unneeded construction equipment shall be removed and all damage repaired so that the public and property owners will be inconvenienced as little as possible.
- B. Where material or debris has washed or flowed into or been placed in water-courses, ditches, gutters, drains, catch basins or elsewhere as a result of the CONTRACTOR's operations, such material or debris shall be entirely removed and satisfactorily disposed of during the progress of the Work and the ditches, channels, drains, etc., kept in a neat, clean and functioning condition.
- C. On or before the completion of the Work, the CONTRACTOR shall, unless otherwise especially directed or permitted in writing, tear down and remove all temporary buildings and structures built by him; shall remove all rubbish from any grounds which he has occupied; and shall leave the roads and all parts of the premises and adjacent property affected by his operations in a neat and satisfactory condition.
- D. The CONTRACTOR shall restore or replace, when and as directed, any public or private property damaged by his work, equipment or employees, to a condition at least equal to that existing immediately prior to the beginning of operations. The CONTRACTOR shall do, as required, all necessary highway or driveway, walk and landscaping Work. Suitable materials, equipment and methods shall be used for such restoration, or as required in other divisions of this specification.
- E. In case the CONTRACTOR shall fail or neglect, after backfilling, to promptly remove all surplus materials, tools and other incidentals, or promptly do the required repaving when ordered, the CITY may, after 24 hours notice, cause the work to be done and the cost thereof shall be deducted from any monies then or thereafter due the CONTRACTOR.

- F. All excavated materials not approved for backfill and fill, all surplus material and all rock and boulders resulting from the excavations; shall be removed and satisfactorily disposed of, off the site, by the CONTRACTOR at no additional expense to the CITY.

PART 2 - MEASUREMENT AND PAYMENT

This item will not be measured for payment. All costs in connection with this work shall be included in the Contract Unit prices bid for the various items of work in the Bid Proposal.

END OF SECTION

SECTION 01215

CONSTRUCTION STAKING

PART 1 - GENERAL

1.01 SCOPE OF WORK

- A. The City shall supply the Contractor with control points and bench marks necessary for the prosecution of the work and the Contractor will be responsible for the actual construction stakeout. Lines and grades for pipe installation shall be set by a laser beam device.

Sufficient stakes, as determined by the Engineer, shall be placed to facilitate determination of horizontal and vertical locations.

- B. The Contractor shall develop and make all detail surveys necessary for construction, including slope stakes, batter boards and other working points, lines, elevations and easement lines. All reference marks shall be verified by an instrument and the Contractor shall be responsible for the accuracy of all lines and grades relative to the project.
- C. Protection of Stakes: The Contractor shall protect and preserve all of the established baseline stakes, benchmarks or other controls that may have been placed by City. The Contractor will replace any of these items destroyed or lost .
- D. The Contractor shall make and submit to the Engineer all measurements necessary for determining final quantities for payment in accordance with the Technical Specifications. All such measurements shall be made in the presence of the City's representative.

PART 2 - METHOD OF MEASUREMENT

This work will not be measured for payment.

PART 3 - BASIS OF PAYMENT

This item will not be measured for payment. All costs in connection with this work shall be included in the Contract Unit prices bid for the various items of work in the Bid Proposal.

END OF SECTION

SECTION 01220

GUARANTEES, WARRANTIES AND BONDS

PART 1 - GENERAL

1.01 CONTRACT DOCUMENT

- A. The general provisions of the CONTRACT, including General and Supplementary Conditions and General Requirements, apply to the work specified in this subsection.

1.02 DESCRIPTION

- A. The CONTRACTOR shall take notice of special guarantees required in the technical sections of these specifications. If, in the opinion of the ENGINEER, any item requires excessive maintenance during the guarantee period, the item shall be considered defective and the CONTRACTOR shall correct the defects. All defects so corrected shall be at the expense of the CONTRACTOR.

END OF SECTION

SECTION 01225

AS-BUILT PLANS

PART 1. GENERAL

The Contractor will be responsible for taking and recording all necessary measurements for as-built plans. The Contractor shall submit recorded data to the City and the City shall prepare final As-Built Plans.

Throughout the progress of construction, the Contractor shall keep two (2) sets of current, detailed field record drawings, to scale, indicating significant deviations from the drawings and exact location of concealed work, including underground utilities. This requirement does not authorize any deviations without approval of the Engineer. The failure by the Contractor to record measurements at the time when accessible, such as when the trench is open, does not relieve Contractor from supplying such data to City. Contractor may have to take steps to uncover work as needed to make the required measurements.

The field record information shall be marked in a legible manner on prints of the drawings furnished by the Engineer. The field information to be so marked shall include, but is not necessarily limited to:

1. Significant deviations of any nature made during construction,
2. All existing underground facilities encountered in the course of the work.
3. At least two (2) tying measurements shall be taken for each facility location point and such measurement shall be taken from existing physical objects, which will remain undisturbed by construction.
4. Invert elevation at the end of each lateral at connection to existing building service. Note chimneys and inverts. Note direction of wyes and distance of new lateral to connection point.
5. All wyes and tees located by distance from downstream manhole.

PART 2. - MEASUREMENT AND PAYMENT

No payment will be made for the above-mentioned items, but shall be included in the overall cost of this contract's unit and lump sum prices bid.

END OF SECTION

SECTION 02015

SUBSURFACE DATA

PART 1 - GENERAL

1.01 CONTRACT DOCUMENT

- A. The general provisions of the contract, including General and Supplementary Conditions and General Requirements, apply to the work specified in this subsection.

1.02 CONDITIONS

- A. It shall be the responsibility of the Contractor to determine for himself annual and seasonal variations in ground water levels which may affect his work Each bidder is expected to examine the site and the compiled record of investigations if available and then, based upon his own inspections, interpretations and such other investigations as he may desire, decide for himself the character of material to be encountered and excavated, the suitability of the materials to be used for backfilling and such other purposes, ground water conditions, difficulties or obstacles likely to be encountered, and other conditions affecting the work.
- B. Subsurface data, if available, is offered in good faith solely for the purpose of placing the Contractor in receipt of all information available to the City. Borings if available show the type of material found at the exact location taken and do not necessarily indicate the type of soils or ground water levels to be encountered in the performance of the work. Borings are not intended as representations or warranties and it is expressly understood that neither the City, the Commission, nor the Engineer will be responsible for the accuracy thereof nor for any interpretations of conclusions drawn therefrom by the Contractor.

END OF SECTION

SECTION 02220

TRENCHING, BACKFILLING, AND COMPACTING FOR SEWERS AND APPURTENANCES

PART 1 - SCOPE

- 1.01 The work covered by this section of the specifications consists of furnishing all labor, equipment, and materials, and in performing all operations in connection with excavation, trenching, backfilling, compaction and grading for sewers, force mains, storm drains and appurtenances. Details of typical trench sections depicting excavation, filling and backfilling requirements are shown on the standard sheets.
- 1.02 The CONTRACTOR shall excavate for trenches and appurtenant structures, strip, fill, backfill, compact, grade and dispose of all unsuitable and surplus materials, as indicated on the Drawings, as specified herein, and as specified by the ENGINEER.

PART 2 - EXCAVATION

- 2.01 GENERAL:
- A. The CONTRACTOR shall perform all excavations for pipes and appurtenant structures of every description and of whatever substances encountered, to the widths and depths indicated on the Drawings and as otherwise specified. During excavations, material determined by the ENGINEER to be suitable for backfilling shall be piled in an orderly manner a sufficient distance from the banks of the trench to avoid overloading and to prevent slides or cave-ins. All excavated materials not required or unsuitable for backfill shall be removed and wasted away from the site. The banks of trenches shall be cut as near vertical as practical. Care shall be taken not to over excavate below the depths indicated unless authorized by the ENGINEER. Unauthorized overdepths shall be backfilled at the CONTRACTOR's expense with bank or crushed gravel material and shall be compacted to not less than 95% of maximum density as defined in PART 3 of this SECTION. Grading shall be done as necessary to prevent surface water from flowing into trenches or other excavations, and any water accumulating therein shall be removed by pumping or by other approved methods. Sewers shall not, at any time, be used for trench drainage.
- B. Unless otherwise specified, excavation shall be open cut, except that short sections of a trench may be tunneled if, in the opinion of the ENGINEER, the pipe can be safely and properly installed and backfill can be properly tamped in such tunnel sections. Excavation for trenches shall be as set out in the following paragraphs.

2.02 TRENCH EXCAVATION - EARTH:

Shall comprise all materials including, but not limited to, clay, silt, sand, muck, gravel, hardpan, loose shale, pavement, pavement bases, stone in mass, sidewalks, and boulders measuring less than 1 cubic yard in volume.

2.03 TRENCH EXCAVATION - ROCK:

Shall comprise the following: Boulders measuring 1 cubic yard or more in volume, rock material in ledges, bedded deposits, unstratified masses, and conglomerate deposits so firmly cemented that they possess the characteristics of solid rock that cannot be removed without systematic drilling and blasting, and unreinforced/reinforced concrete structures, concrete slabs, excluding sidewalks and paving.

2.04 EXTENT OF OPEN EXCAVATION:

The extent of excavation open at any one time will be controlled by the conditions, but shall always be confined to the limits prescribed by the ENGINEER. At no time shall excess trench be open if it creates a hazard. CONTRACTOR shall only open sufficient trench for pipe installation. Trench shall not be left open overnight. The trench shall be completely backfilled at the end of each working day.

2.05 SEPARATION OF SURFACE MATERIALS:

From areas within which excavations are to be made, topsoil shall be carefully removed and separately stored to be used again for top soiling and seeding as directed; or if the CONTRACTOR prefers not to separate surface materials, he shall furnish topsoil at least equal in quantity and quality to that excavated.

2.06 CUTTING AND REMOVING PAVEMENT:

- A. The CONTRACTOR shall remove only as much existing pavement as necessary to do the Work. Where excavations are to be made in paved surfaces, he shall cut the pavement ahead of the excavation before breaking it with pavement-breaking apparatus. All pavement shall be cut with a pavement saw. Cutting and removal shall be done so as to produce relatively clean, uniform, vertical edges without damage to the remaining pavement.
- B. Pavement removed shall not be mixed with other excavated material, but shall be disposed of away from the site of the work before the remainder of the excavation is made.
- C. Existing pavements and base courses that are to remain, shall be protected by the CONTRACTOR. All existing pavements and base courses which have been removed beyond indicated lines, or have been disturbed or damaged shall be

restored or replaced by the CONTRACTOR to match existing pavements, base courses and grades, at no additional expense to the CITY.

2.07 TRENCH SUPPORT SYSTEMS:

- A. The CONTRACTOR shall furnish, put in place and maintain such sheeting, shoring, bracing, etc., as may be necessary to support the sides of the excavation and to prevent any movement of earth other than that intended to be accomplished by the excavation. Such sheeting, shoring and bracing shall be done as may be necessary for the protection of the Work and for the safety of personnel and shall comply with the safety precautions as outlined in the Associated General Contractors of America "Manual of Accident Prevention in Construction".
- B. The CONTRACTOR shall be held accountable and responsible for the sufficiency of all sheeting, shoring and bracing used and for all damage to persons or property resulting from the improper quality, quantity, strength, placing, maintaining or removal of the same.
- C. The CONTRACTOR shall leave in place, to be embedded in the backfill or concrete, only that sheeting, bracing, etc., which the ENGINEER may direct him in writing to leave in place. Where sheeting or bracing is left in place, it shall be cut off at elevations ordered by the ENGINEER. Elsewhere the removal of sheeting and shoring shall be coordinated with backfilling operations so as not to impose additional loads on pipe or structures due to increased trench widths or collapse of trench sides. No direct payment will be made for sheeting, shoring, bracing, and compensation for such work and all expenses incidental thereto shall be considered as included in the unit prices bid for the various Items of this CONTRACT unless otherwise noted on the CONTRACT DOCUMENTS.
- D. There shall be no obligation on the part of the ENGINEER to issue orders for sheeting, staybracing or sheeting left-in-place and/or to pass upon sufficiency and adequacy of sheeting; nor shall the failure on the part of the ENGINEER to give such orders relieve the CONTRACTOR from liability for damages on account of injury to persons or damage to property occurring from or upon the Work and occasioned by negligence, or otherwise growing out of the CONTRACTOR'S failure to either install sufficient and adequate sheeting and/or staybracing or to leave in place in the excavation sufficient and adequate support to prevent the caving in or moving of the ground adjacent to the sides of the excavation during and after the backfilling operation.
- E.
 - 1. Wooden staybracing, shoring and sheeting shall be in conformance with the requirements of the Applicable Safety Code.
 - 2. All steel sheeting shall be continuous and interlocking with materials conforming to the provisions of ASTM Specification A-328, approved equal or as specified.

2.08 DRAINAGE AND DEWATERING

- A. To insure proper conditions at all times during construction, the Contractor shall provide and maintain ample means and devices with which to intercept and/or remove promptly and dispose properly of all water entering trenches and other excavations. Excavations shall be kept dry until the structures, pipes and appurtenances to be built therein have been completed to such extent that they will not be floated or otherwise damaged. Means of water removal and disposal shall include drains, pumps and well point systems to the extent required by the quantity to be removed and to the extent required to prevent "boils" or softening of the foundation soils.
- B. All water pumped or drained from the work shall be disposed of in a suitable manner without undue interference with other work or damage to pavements, other surfaces, or property and to avoid pollution of existing water courses.

2.09 TRENCH SIZE

- A. Trenches shall be excavated to the necessary width and depth for proper laying of pipe. Trench pay limit for items listed in the bid proposal shall be I.D. + 2 feet for pipe up to 16" in diameter and I.D. + 3 feet for pipes greater than 16" diameter as shown on the typical trench sections on the Contract Drawings. The depth of the trench shall be 6 inches below the bottom of the pipe barrel for PVC pipe and the pipe barrel for DIP pipe.
- B. If the existing soil 6 inches below the bottom of the pipe barrel is found to be not suitable, the Engineer may order Unsuitable Excavation (defined in 2.11 below) below the bedding grade.

2.10 UNSUITABLE EXCAVATION - TRENCH

- A. Whenever unstable soil, that is incapable of properly supporting the pipe or structure, is encountered below a depth of 6" inches below the bottom of the pipe barrel or below the bottom of a structure, as determined by the ENGINEER, such soil shall be removed to the full width of the trench and refilled with bank or crushed gravel material as hereinafter specified, placed in 8-inch lifts and thoroughly compacted.
- B. No excavation shall be made below the limits of the excavation called for on the plans or herein specified without prior approval by the ENGINEER.

2.11 ROCK EXCAVATION:

- A. Where rock is encountered in the excavation, it shall be removed as required to permit construction as specified. Where explosives and blasting are used, all laws and ordinances of municipal, state and federal agencies relating to the use of

explosives shall be complied with. All blasting shall be performed by licensed qualified personnel and proper precautions shall be taken to protect persons, property and the Work from damage or injury.

- B. When material is encountered with respect to which the CONTRACTOR may claim removal as Rock Excavation, such material shall be uncovered and exposed and the Engineer notified by the CONTRACTOR before proceeding with the excavation. The CONTRACTOR shall not proceed with the excavation of the material to be removed as rock excavation until elevation of this material has been measured and classified by the Engineer. Failure on the part of the CONTRACTOR to uncover such material, notify the Engineer and allow time for cross-sectioning the undisturbed surface of such material, will forfeit the CONTRACTOR's right to claim to any classification other than that allowed by the Engineer for the areas of work in which the deposits occur. Broken rock from blasting shall not be used for backfill in the sewer trenches.
- C. Rock shall be removed and paid for to a depth of 12 inches below the bottom of the pipe barrel within trench widths defined under section 2.10 trench size, and 12 inches below structure bottoms within vertical planes one foot outside of structure walls. Backfill will be with bank or crushed gravel placed in 8-inch lifts and thoroughly compacted. All rock excavation shall be considered unsuitable for backfill and shall be removed from the site.

2.12 TEST PIT EXCAVATION AND REFILL:

Where the Contractor is directed by the Engineer, in writing, to excavate test pits or other miscellaneous excavations not specified for payment elsewhere, the Contractor shall perform such excavation and refill with excavated material as directed. The refill material shall be placed in 8" lifts and each lift shall be thoroughly compacted. Finish grade to be restored to match existing conditions.

2.13 EXCAVATION NEAR EXISTING STRUCTURES AND UTILITIES:

- A. Information shown on the Drawings as to location is from best available sources, but no guarantee is inherent or to be assumed that such information is accurate or complete. The Contractor shall exercise special care during his operations to avoid injury to underground utilities and structures. When necessary, the Contractor shall cooperate with and consult with representatives of the owner and the utility companies in order to avoid damage to the utility and structures. The Contractor shall furnish and erect suitable supports and shoring or other means of protection, where required. Hand methods of excavating shall be used around buried utilities. All costs in connection with the protection and support of utilities shall be included in the lump sum price bid for "Protection of Existing Utilities".
- B. Where interferences are shown on the Contract Drawings or found during the work, it shall be the Contractor's responsibility to protect or to remove and re-install these

facilities if required (or assist the utility company as necessary) to at least as good a condition as they were prior to the start of construction and to the satisfaction of the Engineer and/or utility company.

The Contractor shall, at his own expense, preserve and protect from injury all property either public or private along and adjacent to the line of Work, and be responsible for and repair any and all damage and injury thereto, arising out of or in consequence of any act or omission of the CONTRACTOR. All existing pipes, culverts, poles, wires, fences, mailboxes, bounds, etc., shall be supported in place or otherwise protected from injury, or shall be restored to at least as good condition as that in which they were found immediately prior to start of Work.

2.14 SAFETY AND ACCOMMODATION:

The CONTRACTOR shall provide at his own expense, suitable bridges over trenches where required for the accommodation and safety of the traveling public, and provide facilities for access to private driveways for vehicular use. He shall erect suitable barriers around the excavation to prevent accidents to the public and shall place and maintain during the night sufficient lights on or near the Work. A space of twenty (20') feet must be left so that free access may be had at all times to fire hydrants and proper precautions shall be taken so that the entrances to fire hydrants and fire stations shall not be blocked or obstructed.

2.15 DISPOSAL OF SURPLUS AND UNSUITABLE EXCAVATED MATERIAL:

All surplus excavated material and any material unsuitable for use shall be disposed of in areas provided by the CONTRACTOR. All disposal areas within the City of Torrington shall be approved, in writing, by the CITY, prior to use. The CONTRACTOR shall not dispose of surplus materials on wetland or other areas prohibited by the Corps of Engineers or the State Department of Environmental Protection.

PART 3 - COMPACTION REQUIREMENTS AND TESTING

3.01 The term "compacted to not less than a percent of maximum density" shall mean the minimum degree of compaction to be attained expressed as a percentage of the maximum density for the materials at optimum moisture content as determined by the current Tests for Moisture-Density Relationships of Soils, ASTM D1557, Method D. When the term "thoroughly compacted" is used in these specifications, it shall mean compaction to at least 95% of the maximum density of the soil at optimum moisture content when tested in accordance with the above method.

- 3.02 The following types of soil tests may be conducted by the CITY, tests shall be taken by qualified personnel approved by the ENGINEER and at locations, depths and on materials directed by the ENGINEER, and all costs in connection therewith shall be borne by the CITY. Tests which do not meet the specified requirements shall be repeated, at the same locations, after remedial actions are taken at the entire expense of the CONTRACTOR until satisfactory test results are obtained.
- A. Particle-Size Analysis of Soils and Backfill Material in accordance with ASTM D 422.
 - B. Moisture-Density Relationship of soil in accordance with ASTM D1557, Method D.
 - C. In-place Density-Tests of soil in accordance with ASTM D 1556.

PART 4 - BACKFILL

4.01 MATERIALS:

A. Suitable Material:

1. Suitable material for trench backfill shall be the material excavated during the course of construction, but excluding debris, pieces of pavement, frozen material, organic matter, topsoil, all wet or soft muck, peat, silt or clay, ledge excavation or any material which, as determined by the Engineer, will not provide sufficient support or maintain the completed construction in a stable condition. As previously stated broken rock from blasting shall not be used as backfill. No stone or rock over 2" shall be placed in the area between 4" below the pipe and 6" above the pipe. No stone with any side larger than 8" will be placed in the backfill.

2. Bank or crushed gravel will be used for trench backfill when the amount of suitable material removed from the trench is inadequate to refill the trench completely, as determined by the Engineer.

B. Bank or crushed gravel shall be clean, well graded from coarse to fine and shall meet grading "A" and the requirements for plasticity and resistance to abrasion indicated in Article M.02.02 of the STANDARD SPECIFICATIONS.

C. Gravel Bedding:

1. Gravel base shall consist of hard durable material free from roots, sod, rubbish, organic material, clay or loam and meeting ASTM C33 stone size No. 67 as follows:

<u>Sieve Size</u>	<u>Percent Passing by Weight</u>
1 inch	100
3/4 inch	90-100

1/2 inch	20-55
No. 4	0-10
No. 8	0-5

2. When ordered by the ENGINEER to stabilize the trench base, graded screened gravel or crushed stone 1/2 inch to 1-1/2 inch shall be used.

- D. Gravel base course for sidewalks, curbing, bituminous paved roads, parking areas, and at other locations indicated on the Drawings shall meet the requirements of Section M.02.03 of the latest edition of the STANDARD SPECIFICATIONS.
- E. Crushed Stone: Crushed stone shall be No. 6 in size and shall be clean, sound, free of silt or foreign materials as follows:

<u>Sieve Size</u>	<u>Percent Passing by Weight</u>
1 inch	100
3/4 inch	90-100
1/2 inch	20-55
3/8 inch	0-15
No. 4	0-5

- F. Filter fabric shall be Amoco Non-woven Construction Fabric No. 4553, or approved equal. Filter fabric shall be highly permeable and non-biodegradable, suitable for intended installation.

4.02 PROCEDURE.

- A. Backfilling Around Structures: Excavated material approved by the Engineer shall be used for backfill around manholes and other structures. The backfill shall be thoroughly compacted in 8" lifts.
- B. Pipe Bedding: Pipe bedding material will be required below all pipe and all structures. Bedding material shall be placed to the full width of the trench as indicated on the Drawings. Bedding material shall be placed 12" beyond the widths of a utility structure foundation (base) and to a depth of 6" from the bottom of the excavation to the bottom of the foundation (base) as indicated on the Drawings. Material under and around the pipe shall be carefully and thoroughly compacted.
- C. Placement of Backfill above Pipe Bedding
 - 1. Backfill above pipe bedding shall be as indicated on the Drawings. Above this point, backfill shall be suitable material from excavation. This backfill material shall be placed, spread and leveled in layers not to exceed 8" in depth. All voids along the sides of the trench, behind sheeting, under bracing or other objects, shall be completely filled, using such fine materials, hand labor and materials as may be necessary. The entire area of each layer shall be compacted by means of mechanical

rammers or vibrators or pneumatic tampers. Each layer shall be tamped and compacted before the next layer is placed. All backfill materials shall be compacted to a minimum of 95% of the maximum dry density as determined by AASHTO T-180 Method D or as directed by the Engineer. Each layer of compacted granular fill shall be compacted at optimum moisture content. No subsequent layer shall be placed until the specified compaction is obtained for the previous layer. This backfill shall be carried up to the bottom of materials specified to be placed for surfacing requirements.

At the Engineer's discretion, the Contractor may compact the backfill by means of a Ho-Pac. There must be at least 36" of material above the stone bedding prior to beginning the Ho-Pac operation. The Engineer shall also have the right to approve or disapprove the compaction equipment to be used and also the height of backfill to be compacted in one lift. When a Ho-Pac is utilized, trench backfill shall be compacted in lifts not to exceed two (2') feet.

2. In areas where the finished surface is to be loam, the CONTRACTOR shall complete the backfilling with the respective specified material to compacted depths as shown. For cross-country construction, backfill, including allowance for loam, shall be mounded to a height of 6 inches above the original ground surface.

3. In all roadway areas, the Contractor shall install gravel base course, processed aggregate base course and bituminous concrete pavement as shown on the Contract Drawing Details.

D. Trench Excavation in Fill:

1. Where the existing unpaved ground surface does not permit at least 3 feet of cover over the finished pipe, and as indicated on the Drawings, the CONTRACTOR shall place and thoroughly compact suitable fill material to the depth necessary to provide the 3 foot minimum cover, including allowance for loam and minimum width at top of mound of 12 feet or otherwise shown on the Drawings or as ordered by the ENGINEER. Minimum side slopes shall be two horizontal to one vertical, and the CONTRACTOR shall provide for drainage of uphill side of embankments. Fill material shall be clean, dry and capable of satisfactory compaction, all as approved by the ENGINEER, and shall be placed in layers not exceeding 8 inches thick and compacted.

2. The trench shall be excavated in the compacted fill and the remainder of the work shall be in accordance with the other portions of these specifications.

PART 5 - MEASUREMENT

5.01 TRENCH EXCAVATION - EARTH:

Trench excavation and backfill-earth will not be measured for separate payment. Removal and storage of topsoil, clearing and grubbing, cutting and removing pavement, trench dewatering, trench backfill and compaction, as described in parts 2, 3, and 4 of this Section, and disposal of surplus and unsuitable material will not be measured for separate payment. Payment for these items will be made as part of the Unit Prices for the items of Work outlined in Section 02300 and Section 02500.

5.02 TRENCH EXCAVATION - ROCK:

- A. Trench excavation - rock will be measured as the actual number of cubic yards of rock removed within the following trench payment widths and depths.

Trench pay limit shall be I.D. + 2 feet for pipe up to 16" in diameter and I.D. + 3 feet for pipes greater than 16" diameter as shown on the typical trench sections on the Contract Drawings. The depth will be measured from the existing surface of the rock to 12 inches below the pipe.

- B. Boulders over 1 cubic yard, which are required to be removed within the trench payment limits, shall be measured for payment as Trench Excavation – Rock. Boulders under 1 cubic yard shall be classified for payment under Trench Excavation-Earth and pay accordingly.
- C. No separate measurement will be made for bank or crushed gravel used to replace excavated rock. The cost of Bank or Crushed Gravel used to replace excavated rock shall be included in the unit price for Trench Excavation- Rock.

5.03 TEST PIT EXCAVATION AND REFILL:

Test pit excavation and refill, as ordered by the Engineer, will be measured by the cubic yard.

PART 6 - BASIS OF PAYMENT

6.01 Trench Excavation, Earth, will not be paid for separately. All costs in connection with this work will be included in the unit prices bid for various sizes and types of pipe and various structures.

6.02 Trench Excavation - Rock, will be paid for at the Contract Unit Price bid per cubic yard regardless of depth, and shall include all materials used to backfill the volume of the rock removed.

- 6.03 Unsuitable Excavation – Trench, will be paid for at the Contract Unit Price bid per cubic yard regardless of depth, and shall include all gravel/stone materials used to backfill the volume of the unsuitable material removed.
- 6.04 Imported “Bank or Crushed Gravel” to be used below the road and sidewalk subbases and topsoil areas when there is inadequate existing backfill material will be not be measured but will be paid for at the contract unit price per cubic yard for “Bank or Crushed Gravel”, which price shall include all labor, materials, equipment, tools, labor and all work incidental to complete the item as specified. Where rock or unsuitable material is excavated, the price of for gravel/stone replacement material shall be included in the respective unit price paid for excavation of rock or unsuitable material.
- 6.05 Payment for the above work shall include the cost of all labor, materials, equipment, transportation tools and all other work incidental or necessary to complete the work as specified.

END OF SECTION

SECTION 02300
SANITARY SEWERS

PART 1 - SCOPE

1.01 CONTRACT Description

- A. CONTRACTOR shall furnish all sanitary sewer pipe, fittings, jointing materials, labor, tools and equipment necessary to lay and joint the pipe in accordance with the specifications herein.
- B. The CONTRACTOR shall furnish and install tees, wye branches and chimneys, as necessary, to replace all existing tees, wye branches and chimneys that are necessary or required in mainline sewers being replaced.

1.02 Related Work Specified Elsewhere

Section 02220 - Trenching, Backfilling and Compacting for Sewers and
Appurtenances

PART 2 - MATERIALS

2.01 GENERAL

Materials for the installation of sanitary sewers shall be as shown on the Contract Drawings and of new and unused material and shall conform to the requirements specified.

2.02 MATERIALS SPECIFIED ELSEWHERE

Section 02310 – PVC Sewer Pipe
Section 02330 - Sanitary Manholes

2.03 SHOP DRAWINGS

- A. The CONTRACTOR shall submit to the ENGINEER for Approval, two (2) sets of detailed working drawings and schedules of all pipe and fittings required in accordance with the General Conditions.
- B. The quality of all materials, process of manufacture, and finished pipe shall be subject to inspection by the ENGINEER at the place of manufacture or at the site of the Work, and all pipe shall be subject to rejection at any time on account of failure to meet these specifications.

PART 3 - INSTALLATION OF PIPE

3.01 PIPE HANDLING

- A. The CONTRACTOR shall arrange for the delivery of the pipe sections at approved locations in the vicinity of that portion of the sewer line in which the pipe sections are to be laid. To this end, he shall do such work as is necessary for access and for delivery of the pipe. Pipes shall be stored in an approved, orderly manner so that there will be a minimum of re-handling from the storage area to the final position in the trench and so that there is a minimum of obstruction and inconvenience to any kind of traffic. Deliveries shall be scheduled so that the progress of the Work is at no time delayed and also so that large quantities of pipe shall not be stored for excessive lengths of time in crowded locations or in locations where large storage areas might be considered objectionable. Storage of pipe will be restricted to approved or permitted areas.
- B. The spigot end of all pipes shall be stored on a block to prevent damage.
- C. Each pipe section shall be handled into its position in the trench in such manner and by such means as the ENGINEER approves as satisfactory, and these operations will be restricted to those considered safe for the workmen and such as to cause no injury to the pipe or to any property.
- D. The CONTRACTOR will be required to furnish slings, straps, and/or approved devices to provide satisfactory support of the pipe when it is lifted. Transportation from delivery areas to the trench shall be restricted to operations which can cause no injury to the pipe units.
- E. The pipe shall not be dropped from trucks or into the trench.
- F. The CONTRACTOR shall have on the job site with each pipe laying crew all the proper tools to handle and cut the pipe. The use of hammer and chisel, or any other method, which results in rough edges, chips, and damaged pipe, shall be prohibited.

3.02 CONTROL OF ALIGNMENT AND GRADE

- A. In general all sanitary sewer lines shall be installed utilizing a "laser beam" as authorized and approved by the ENGINEER. All methods, equipment and labor used for establishing line and grade shall be approved by the ENGINEER.
- B. The CONTRACTOR shall demonstrate to the ENGINEER that all personnel, responsible for the line and grade of the sewer pipe installation, have been sufficiently trained and are proficient in the use of laser beam equipment.

- C. The CONTRACTOR shall verify, at 100 foot intervals and at all manholes, for all pipe installation, that the sewer line is being installed true to line and grade as shown on the Contract Drawings.
- D. The use of string levels, hand levels, carpenter levels or any other crude devices for transferring grade or setting pipe will not be permitted.
- E. The Work shall be done in strict conformity with controls and instructions. The CONTRACTOR shall carefully preserve bench marks, reference points and stakes, and in case of willful or careless destruction by his own men, he will be charged with the resulting expense and shall be responsible for any mistakes or delay that may be caused by their unnecessary loss or disturbance.

3.03 PREPARATION OF BED

- A. As soon as excavation has been completed to proper depth as shown on the Standard Trench Detail a layer of pipe bedding material shall be placed and compacted to the elevation necessary to bring the pipe to grade.
- B. The compacted bed shall be rounded so that at least the bottom quadrant of the pipe shall rest firmly for the full length of the barrel. Suitable holes for bells or couplings shall be dug around the pipe joints to provide ample space for making tight joints.
- C. It shall be the CONTRACTOR's responsibility to control any water in the trench below the pipe invert and he shall place concrete, clay or other impermeable material in the bedding at intervals to prevent horizontal movement of the groundwater which might induce settling of the bed, or make it difficult to handle the water in the trench.

3.04 LAYING PIPE

- A. Each pipe length shall be inspected for cracks, defects, and any other evidence of unsuitability. Before lowering in place, the pipe shall be struck with a suitable tool to verify its soundness.
- B. Pipe shall be laid in the dry and at no time shall water in the trench be permitted to flow into the sewer.
- C. The pipe shall then be laid on the trench bedding as shown on the Standard Trench Cross-Section, and the spigot pushed home. Jointing shall be in accordance with the manufacturer's instructions and appropriate ASTM Standards, and the CONTRACTOR shall have on hand for each pipe-laying crew, the necessary tools, gauges, pipe cutters, etc., necessary to install the pipe in a workmanlike manner. Pipe laying shall proceed upgrade with spigot ends pointing in the direction of the flow.

- D. Blocking under the pipe will not be Permitted except where a concrete cradle is proposed in which case, pre-cast concrete blocks shall be used.
- E. After the pipe has been set to grade, additional pipe bedding material shall be placed in 8-inch layers to a depth as indicated on the Drawings. Tamping bars shall be carefully employed to assure compaction of the bedding under the lower quadrants of the pipe.
- G. A utility identification warning tape shall be placed as detailed on the Contract Drawings for all sewers installed.
- H. At this point, the pipe shall be checked for line and grade and any debris, tools, etc., shall be removed.
- I. If inspection of the pipe is satisfactory, the CONTRACTOR may then refill or backfill the remainder of the trench in accordance with Section 02220.
- J. At any time that work is not in progress, the end of the pipe shall be suitably closed to prevent the entry of animals, earth, etc.
- K. At the end of each day's work or at intervals of no more than 100 feet of pipe, the ENGINEER, with the CONTRACTOR, will inspect the pipe for alignment with lamps or mirrors. Unsatisfactory work shall be dug up and reinstalled to the satisfaction of the ENGINEER.

3.05 RECONNECTION OF SERVICE CONNECTIONS

When an existing tee, wye branch or chimney has been replaced, the service connection to that fitting will be attached securely. This connection shall be made with a flexible transition coupling as manufactured by "Fernco" or approved equal, if directed by the Engineer.

PART 4 - HOUSE SERVICES, WYE BRANCHES AND CHIMNEYS

4.01 SCOPE

- A. The CONTRACTOR shall furnish and install house services, tee or wye branches and chimneys as necessary for all existing buildings, building lots and those buildings under construction which require sanitary sewerage services, as directed by the CITY and ENGINEER.

- B. The location of wyes, chimneys and building services are, in general, shown on the Drawings. The house service locations have been shown as indicated and/or implied on existing sewer drawings. These locations are to be utilized as a guide only.

4.02 MATERIALS

Materials for house services, tee, wye branches and chimneys shall be of the same material and quality as that for the materials specified in Part 2 of this section or as specified on the "Typical Details" Standard Sheet.

4.03 INSTALLATION

- A. Installation shall be as shown on the "Typical Details" Standard Sheet. House services shall not, in general, be connected directly to manholes unless approved by the ENGINEER. The opening of the house service, wye branch or chimney shall be suitably plugged with a watertight cap or plug.
- B. A pressure treated 2" x 4" stake to mark the location and elevation of the end of each lateral will be placed as directed by the inspector near the end of each lateral, from the pipe to 12" below finished grade. A 12" x 12" x 1/4" steel plate shall be securely attached to the top of the stake 12" below finished grade. As-built documentation will be obtained prior to backfilling. Stake and plate will be left in place upon completion of all Work.

The CONTRACTOR is responsible for locating all laterals for the "as-built" drawings and the accuracy thereof. The CONTRACTOR shall provide, for all house service connections, "as-built" data, to include invert elevation at the connection to existing lateral or the end of lateral (cap) and two location ties from permanent structures shown on the Contract Drawings.

- C. Tunneling will not be permitted.

PART 5 - CONNECTIONS TO EXISTING SEWERS AND MANHOLES

5.01 GENERAL

- A. The CONTRACTOR shall make all connections to the existing facilities as indicated on the Drawings and as herein specified, or as directed.
- B. The CONTRACTOR shall furnish all pipe, fittings and appurtenances. The CONTRACTOR shall do all excavation and backfill as required.
- C. Existing pipelines damaged by the CONTRACTOR shall be replaced by him at his own expense in a manner approved by the ENGINEER.

5.02 INTERFERENCE

- A. The CONTRACTOR shall develop a program for the construction and placing in service of the new works subject to the approval of the ENGINEER. All works involving cutting into and connecting to the existing facilities shall be planned so as to interfere with operation of the existing facilities for the shortest possible time and when the demands on the system best permit such interference even to the extent of working outside of normal working hours to meet these requirements.
- B. The CONTRACTOR shall have all possible preparatory work done and shall provide all labor, tools, material supervision and equipment required to do the work in one continuous operation.
- C. The CONTRACTOR shall have no claim for additional compensation, by reason of delay or inconvenience, for adapting his operations to the needs of the public.

5.03 NORMAL JOINT CONNECTIONS

The CONTRACTOR shall make joint connections similar to those on the existing pipe or adaptable to such pipe unless specifically otherwise shown on the Drawings or directed by the ENGINEER.

5.04 CONNECTION TO EXISTING SEWERS AND MANHOLES

A. Public Sewers

Where new construction is intended to connect to an existing sewer, a new manhole shall be installed at the connection unless waived by the ENGINEER and OWNER or as shown on the Drawings. Special care shall be taken to insure a tight joint between the new and existing sewers.

B. Service Connections

1. Service connections constructed where there is no connection fitting or where the fitting has been damaged by or cannot be located by the CONTRACTOR shall be constructed as detailed on the Contract Drawings.

2. Existing sewers shall be tapped by mechanical tapping machines specifically designed for such work. Tapping by use of hammer and chisel shall not be allowed except if specifically authorized in writing by the ENGINEER.

3. Existing sanitary sewer lateral connections shall be located and dye tested by the CONTRACTOR to insure accuracy in lateral connections. These locations shall be documented by the CONTRACTOR and witnessed by the ENGINEER.

C. Manholes

Where new construction is intended to connect to an existing brick or block manhole, the existing manhole shall be replaced. If the existing manhole is of concrete or pre-cast concrete and in satisfactory condition, as determined by the ENGINEER, this requirement may be waived by the ENGINEER and CITY.

PART 6 - PROXIMITY TO EXISTING WATER MAINS

Design standards require 10 feet horizontal separation between sanitary sewers and water lines. However, should construction operations reveal or expose a waterline (main or service) running approximately parallel to and less than 10 feet horizontally from the proposed sewer installation and where it is not practicable to relocate the sewer, the following methods of protection must be employed:

- 6.01 If the waterline can be kept at least 18 inches above and 3 feet to one side of the sewer, as shown on the Standards Sheets, and supported on a bench of original soil, no other protection is required.
- 6.02 If the above separation cannot be achieved, the sewer section (MH to MH) shall be ductile iron pipe. Ductile iron pipe class shall be determined by the ENGINEER as required.
- 6.03 Should the waterline cross over the new sewer with less than 18 inches separation, the sewer for a distance of 10 feet on each side of the waterline shall be ductile iron pipe. Appropriate manufactured fittings shall be employed to adapt the ductile iron pipe to the CONTRACT sewer pipe. As an alternative, the waterline may be raised if feasible, to achieve the required separation.

PART 7 - PROXIMITY TO WATER SUPPLY WELLS

Design standards require a 25-foot minimum horizontal separation between sanitary sewers and water supply wells. The well locations shown on plans are approximate. The CONTRACTOR shall verify the locations of all wells within the project area where sewers are proposed. Sanitary sewers located within 75 feet of a water supply well shall be reported to the ENGINEER and built to conform to the following specifications:

- 7.01 All sewer manholes shall be located a minimum of 75 feet from private water supply wells. If this separation is not possible, manholes within 75 feet to 25 feet of wells must be vacuum or hydraulically tested to show they are tight and a report of the test results submitted to the local health department.

- 7.02 A maximum allowable limit of infiltration/exfiltration is 25-gal/inch pipe dia/mile of pipe/day.
- 7.03 Where PVC is called for on the Contract Drawings, the CONTRACTOR shall use PVC sewer pipe SDR 35, C-900 DR18 and C-905 DR18 with integral rubber compression gasket. "O"-ring gaskets, stainless steel clamps or stainless steel sleeves are not acceptable if used within 75 feet of a private water supply.
- 7.04 Pipe must be properly bedded in accordance with ASTM D2321 for PVC pipe. In addition, joints must-meet ASTM D3212-76 specifications.
- 7.05 No extra payment will be made for this work as described but the cost shall be considered included in the unit price bid for "Sanitary Sewers", to the depths and as specified in the bid proposal.

PART 8 - CONCRETE CRADLE OR ENCASEMENT

Where indicated on the Drawings, or as directed by the ENGINEER, sewer pipe shall be covered by a concrete arch encasement or entirely encased with concrete in accordance with the Standard Sheet.

PART 9 - MEASUREMENT

- 9.01 Sanitary Sewer Pipe, installed, will be measured by the linear foot along the centerline of pipe from inside wall to inside wall of manholes in a horizontal plane, or, if the pipe is laid beyond a manhole, measurement will be made to the end of the pipe in a horizontal plane. Depth divisions as listed on the proposal or bid form will be measured from the existing ground surface to a plane parallel to the bottom of the pipe barrel.
- 9.02 There will be no separate measurement for clearing, including cutting and removal of trees, grubbing, stripping, stockpiling of topsoil, removal and disposal of pavement, pavement base, sidewalks, curbs, driveways, rubble, the disposal of cut trees, stumps, roots and all other unsuitable material.
- 9.03 There will be no separate measurement for earth trench excavation or earth backfill, the cost of such materials and work will be considered as included in the general cost of laying pipe.
- 9.04 There will be no separate payment for relocating or supporting utility poles unless noted otherwise in the Supplementary Conditions.
- 9.05 Building/House service connection pipe will be measured as the actual length of pipe and fittings installed from the centerline of the main line to the end of service and the price bid shall include the cost of all required pipe fittings and accessories except wyes or chimneys.

PART 10 - PAYMENT

- 10.01 Payment made under this section shall be considered as full compensation for furnishing all labor, equipment, materials and services and installing sewer pipes of the sizes and types shown on the plans, and tabulated in the bid proposal, complete in place, including all connections necessary to constitute a fully operational sewer approved by the ENGINEER.
- 10.02 Payment shall also include all stoppers, crushed stone bedding, and filter fabric. Payment will be at the Contract unit price bid per linear foot for whichever size and type of pipe as directed to be installed by the ENGINEER.
- 10.03 Payment for “T’s” or “Wyes” will be at the Contract unit price bid for “T’s” or “Wyes” and shall include any required excavation or bedding below trench payment depth..
- 10.05 Payment shall include all clearing, grubbing, excavating, dewatering, testing, backfilling, trench support connections, connecting to existing laterals, stone bedding, filter fabric, utility identification warning tape, compacting, pavement removal, removal and disposal of existing sewer pipe, grading, disposal of unsuitable and surplus excavated material, importing gravel fill and all other work necessary or incidental to the completion of the work under this section of the Specifications.
- 10.06 Concrete for concrete encasement will be paid for at the contract unit price per cubic yard for Class "A" Concrete, complete in place, which price shall include all material, equipment, tools, labor and work incidental thereto.
- 10.07 Payment for new building/house service connections will be all inclusive at the contract unit price bid per linear foot for whichever size and type of pipe is directed to be installed by the Engineer to include dye testing, bedding, sand fill, backfill, compaction, excavation, trench support, dewatering, connecting to existing lateral, disposal of unsuitable and surplus excavated material, filter fabric, utility identification tape, sidewalks, driveways, temporary and permanent pavement, curbing, etc. and/or loaming, fertilizing and seeding, whichever applies.

END OF SECTION

SECTION 02301

SEWER FLOW CONTROL

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. The work covered by this Section of the Specifications consists of furnishing all labor, supervision, equipment, appliances and materials and performing all operations in connection with control and maintenance of sewage flow during inspection, rehabilitation, and/or installation of sewers.

1.02 PROJECT CONDITIONS

- A. It shall be the responsibility of the Contractor to make provisions to meet all requirements of these specifications and to correct any problems that may arise, as a result of pumping and bypassing operations.
- B. Standing water in manholes shall be pumped out when necessary to perform the scheduled alterations, and as directed by the CITY.
- C. The Contractor's intended methods for diversion and control of sewer system flows shall be submitted for approval to the CITY prior to starting the work. It is expressly understood and agreed that any approvals given by the CITY shall not relieve the Contractor of full responsibility for any injury or damage resulting from the Contractor's operations or for complying with all regulations or requirements of State or Local authorities.
- D. Under no circumstances will the Contractor be allowed to discharge temporary bypasses containing untreated sanitary sewage anywhere other than the sanitary sewer system.

PART 2 PRODUCTS

2.01 EQUIPMENT

- A. The sewer lines in the designated areas shall be pumped down using pumps designed to handle raw sewage without clogging and of sufficient size and durability to pump the expected flows continuously.
- B. If pumping is required on a 24-hour basis, all engines shall be equipped in a manner to keep the pump noise at a minimum.

- C. The Contractor also shall provide 100 percent backup for his system in the event of equipment failure.

PART 3 EXECUTION

3.01 GENERAL

- A. **Plugging or Blocking:** When line plugging is required, a sewer line plug shall be inserted into the line at a manhole upstream from the section in which work is to be performed. The plug shall be so designed that all or any portion of the sewage flows can be released. During the work, flows shall be shutoff or reduced to within the maximum flow limits as needed and described in B. After the work tasks have been completed, flows shall be restored to normal.
- B. **Pumping and Bypassing:** When pumping/bypassing is required, the Contractor shall supply the necessary pumps, conduits, and other equipment to divert the flow of sewage around the manhole section in which work is to be performed. The bypass system shall be of sufficient capacity to handle existing flows plus additional flow that may occur during periods of a rainstorm, including infiltration and inflow.

The Contractor will be responsible for furnishing the necessary labor and supervision to set up and operate the pumping and bypassing system.

3.02 MAINTAINING FLOWS DURING THE PIPE INSTALLATION AND/OR REHABILITATION OPERATION

- A. During the installation and/or rehabilitation of sections of the sewer system, it is required that the Contractor maintain sewage flows in the system and from all abutting properties at all times. No sanitary service shall be interrupted by the Contractor except as absolutely necessary and then for only very short periods of time of no more than thirty (30) minutes and then only when coordinated with the affected property owner. Except during lining operations where interruption at the street tie-in will be allowed for up to twenty-four (24) hours, when coordinated with the affected property owner.

3.03 WORKMANSHIP

- A. **Flow Control Precautions:** Whenever flows in a sewer line are blocked, plugged or bypassed, sufficient precautions must be taken to protect the sewer lines from damage that might be inflicted by excessive sewer surcharging. Further, precautions must be taken to ensure that sewer flow control operations do not cause flooding or damage to public or private property being served by the sewers involved. The Contractor will be held liable for any damage resultant of his flow control operation and will be responsible to repair, replace or otherwise rectify said damage immediately to the satisfaction of the CITY.

PART 4 MEASUREMENT AND PAYMENT

This work will be paid for at the Contract Lump Sum Price for "Sewer Flow Control". This price shall include which price shall include all material, equipment, tools, labor and work incidental thereto.

END OF SECTION

SECTION 02310

POLYVINYL CHLORIDE (PVC) PLASTIC SEWER PIPE

PART 1 - GENERAL

1.01 CONTRACT Description

- A. CONTRACTOR shall furnish all sanitary sewer pipe and fittings, jointing materials, labor, tools and equipment necessary to lay and joint the pipe in accordance with the specifications herein.
- B. The CONTRACTOR shall furnish and install tees, wye branches and chimneys, as necessary, to replace all existing/required tees, wye branches and chimneys that are encountered/required in mainline sewers being replaced.

1.02 Related Work Specified Elsewhere

Section 02220 - Trenching, Backfilling and Compacting for Sewers

Section 02300 - Sanitary Sewers

Section 02330 - Sanitary Manholes

PART 2 - MATERIALS

2.01 Polyvinyl Chloride Plastic Sewer Pipe (PVC)

- A. Polyvinyl Chloride (PVC) Plastic Sewer Pipe shall be unplasticized polyvinyl chloride plastic gravity sewer pipe with integral wall bell and spigot joints. Pipe and fittings shall meet and/or exceed all of the requirements of ASTM Specification D 3034-73a.

Provisions must be made for contraction and expansion of each joint with a rubber ring. The bell shall consist of an integral wall section stiffened with two PVC retainer rings which securely lock the solid cross Section rubber ring into position. Standard pipe lengths shall be 20 feet and 12.5 feet, with a tolerance of 1" inch. PVC Sewer Pipe shall meet the dimensional tolerance of ASTM D 3034, PVC Sewer Pipe, SDR 35.

- B. Pipe shall be tested by the Manufacturer for the following:

Physical and Chemical Requirements: Copies of Certified Test results for the following tests shall be furnished to the ENGINEER prior to delivery of pipe to the project:

Pipe shall be designed to pass all tests at 73°F, ($\pm 3^\circ\text{F}$).

Pipe Stiffness: Minimum "Pipe Stiffness" at a 5 percent deflection shall be 46 for all sizes when tested in accordance with ASTM Designation D 2412-68, External Loading Properties of Plastic Pipe by Parallel-Plate Loading.

Flattening: There shall be no evidence of splitting, cracking or breaking when the pipe is tested in accordance with ASTM D-3034, F789, F679 as follows:

Flatten specimen of pipe, six inches long between parallel plates in a suitable press until the distance between the plates is 40 percent of the outside diameter of the pipe. The rate of loading shall be uniform and such that the compression is completed within two to five minutes.

Drop Impact Test: Pipe (6" long section) shall be subjected to impact from a free falling tup (20 lb. Tup A) in accordance with ASTM Method D 2444. No shattering or splitting (denting is not a failure) shall be evident.

Acetone Immersion Test: After two hours immersion in a sealed container of anhydrous (99.5% pure) acetone a 1" 10ng sample ring shall show no visible spalling or cracking (swelling or softening is not a failure) when tested in accordance with ASTM D 2152-67.

- C. All pipes between adjacent manholes shall be the class required by the maximum depth of cover between said manholes.
- D. The quality of all materials, process of manufacturer, and finished pipe shall be subject to inspection by the ENGINEER at the place of manufacture or at the site of the WORK, and all pipe shall be subject to rejection at any time on account of failure to meet these specifications.
- E. Each length of pipe shall be marked with the nominal size, the type, the name of the manufacturer or his trademark and the date manufactured. All parts of joints shall be marked with the manufacturer's identification, size, and type of pipe for which it is intended.
- F. Prior to installation, the CONTRACTOR shall furnish the manufacturer's certificate of compliance.
- G. The maximum design deflection for all PVC pipe shall be 5% of the outside diameter.

2.02 Polyvinyl Chloride Joints

- A. Each length of pipe shall be provided with bell-and-spigot end and accurate joint surfaces. The joint shall be sealed by a round gasket so that the joint will remain

watertight under all conditions of service, including movement due to expansion, contraction and normal settlement.

Gaskets for sealing joints and fittings shall conform to ASTM F477 Standard Specification for Elastomeric Seals (Gaskets) for joining plastic pipe. Each gasket shall be a continuous ring of solid section, having a smooth surface free from blisters, porosity and other imperfections. The joint sealing gasket shall be of a composition and texture which shall be-resistant to sewage, industrial wastes including oils and groundwater and which will endure permanently under the conditions likely to be imposed by this use.

Joints shall be sealed with a factory installed double lip retained gasket, approved by the Engineer and shall be a composition and texture which is resistant to common ingredients of sewage industrial wastes including oils and ground water and which will endure permanently under the conditions likely to be imposed by this use. The tensile strength shall be at least 1,300 psi. The elongation at rupture shall be such that 2 inch gauge marks shall stretch to not less than 10 inches. Hardness shall be between 40 and 50, as measured with a Shore Durometer. The compression set (constant deflection) shall not exceed 25 percent of the original deflection. The tensile strength after accelerated aging shall be not less than 80 percent of the original strength. The joint, when assembled, must be able to withstand a hydraulic pressure internally of at least 10 psi.

- B. The ENGINEER will examine each bell-and-spigot end to determine whether the preformed joint has been damaged prior to installation. Any pipe having defective joint surfaces shall be rejected.

2.03 House Services, Wye Branches and Chimneys

- A. Materials for house services, wye branches and chimneys shall be of the same material and quality as that specified in Sub-Sections 2.01 and 2.02, respectively, of this section or as specified on the Standard Detail Sheet.

PART 3 - MEASUREMENT AND PAYMENT

3.01 Measurement

There will be no separate measurement for PVC sewer pipe, except as outlined in Section 02300.

3.02 Payment

Payment for PVC sewer pipe will be as outlined in Section 02300.

END OF SECTION

SECTION 02330

SANITARY MANHOLES

PART 1 GENERAL

1.01 SCOPE

- A. The work covered by this section includes the furnishing of all plant, labor, equipment, appliances, and materials, and performing all operations in connection with the satisfactory removal and installation of sanitary manholes and all incidental work, complete, in strict accordance with the specifications and applicable drawings and standard details, and conditions of the CONTRACT.
- B. The CONTRACTOR shall provide the ENGINEER with shop drawings of all pre-cast material and a description of all methods of jointing he proposes to use on this portion of the CONTRACT.
- C. It is the intention of these specifications and the desire of the ENGINEER that the manholes, including all component parts, have adequate space, strength and leak proof qualities considered necessary by the ENGINEER for the intended service. Space requirements and configurations, shall be as shown on the drawings. Manholes shall be an assembly of pre-cast sections with steel reinforcement, with approved jointing, or concrete cast monolithically in place with reinforcement. In any approved manhole, the complete structure shall be of such material and quality as to withstand loads of 8 tons (H₂O loading) without failure and prevent leakage in excess of one gallon per day per vertical foot of manhole, continuously for the life of the structure. (A period generally in excess of 25 years is to be understood in both cases.) It is further intended that any pointing of joints shall be accomplished after leakage tests have been satisfactorily completed except as noted in subpart 3.04, "Leakage Tests".

1.02 DESCRIPTION

- A. Manholes shall be constructed at the locations, to the elevations, and in accordance with notes and details shown on the Drawings as well as the standard details.
- B. Manholes shall be as shown on the standard details and of the types following:
 - 1. Barrels and cone sections shall be pre-cast reinforced concrete.
 - 2. Base sections shall be monolithic to a point 6" above the crown of the incoming pipe with an anti-flotation collar, and shall be pre-cast reinforced concrete, or poured in-place where shown on the Contract Drawings.

3. Horizontal joints between sections of pre-cast concrete barrels shall be of a type approved by the ENGINEER which type shall, in general, depend for water-tightness upon an elastomeric or mastic-like sealant.
 4. Cone sections shall be eccentric - see standard detail.
 5. All pre-cast sections and bases shall have the date of manufacture and the name or trademark of the manufacturer impressed or indelibly marked on the inside wall.
- C. See Standard Manhole Details on the Contract Drawings for type and size of Manholes.

1.03 RELATED WORK SPECIFIED ELSEWHERE

Section 02220 - Trenching, Backfilling and Compacting for Sewers and Appurtenances

PART 2 MATERIALS

2.01 MANHOLES

- A. Concrete for pre-cast manhole bases and riser sections shall conform to ASTM C478.
- B. All base and riser sections shall be joined using a flexible Butyl Resin sealant conforming to Fed. Spec. SS-S-210A, AASHTO M-198B, and size as-recommended by the manhole manufacturer and approved by the ENGINEER.
- C. All pre-cast manhole connections shall consist of a flexible sleeve of high quality rubber flange East into the wall of the manhole to form a tight waterstop as shown on the Typical Detail Sheet. The flexible sleeve shall be equal to "Lock Joint Flexible Manhole Sleeve" manufactured by Interpace Corp. or "A-Lok Manhole Pipe Seal" manufactured by A-Lok Corp., or a "manhole pipe seal" as shown on the Detailed Contract Drawings.
- D. In lieu of a cone section, when manhole depth is such that a transition cone section cannot be used, a reinforced concrete slab cover may be used having an eccentric entrance opening and capable of supporting H-20 loads. See Shallow Manhole detail on standard detail sheets.
- E. Inside drop piping shall be installed in manholes where shown or as directed in accordance with the detail drawing. All manhole inverts shall be shelved with sound, hard burned brick. Brick shall conform to ASTM C 32-73 Sewer and Manhole Brick, Grade SS.

- F. All manhole bases shall be pre-cast, monolithic with an anti-flotation collar.

2.02 MANHOLE FRAMES AND COVERS

- A. Manhole frames and covers shall conform to the details on the Standard Sheets.
- B. Manhole cover shall have letters cast into the top surface as shown on the Contract Drawings.
- C. The castings shall be of good quality, strong, tough, even-grained cast iron, smooth, free from scale, lumps, blisters, sandholes, and defects of every nature which would render them unfit for the service for which they are intended. Contact surfaces of covers and frame seats shall be machined at the foundry, before shipment, to prevent rocking of covers in any orientation.
- D. All castings shall be thoroughly cleaned and subject to a careful hammer inspection.
- E. Castings shall be at least Class 30 conforming to the ASTM Standard Specifications for Gray Iron Castings, Designation A48.
- F. Where indicated on the Contract Drawings, manhole covers shall be water-tight manhole covers and shall have a rubber gasket seal, with concealed pickholes. The lid shall be bolted with at least 4 bolts on all cross-country manholes or where indicated on the Drawings or ordered by the ENGINEER.

2.03 BEDDING MATERIALS

- A. Manhole bedding shall be gravel bedding as specified in Section 02220, Trenching, Backfilling and Compacting for Sewers and Appurtenances.

2.04 BRICK MASONRY

- A. This section applies to brick masonry, for the shelf invert, and grade adjustment.
- B. The brick shall be sound, hard, and uniform dense brick, regular and uniform in shape and size, of compact texture, and satisfactory to the ENGINEER. Brick shall comply with the ASTM Standard Specifications for Sewer Brick (made from clay or shale), Designation C 32-05, for Grade SS, hard brick.
- C. Rejected brick shall be immediately removed from the work site by the CONTRACTOR at his own expense.
- D. The mortar shall be composed of Portland Cement, hydrated lime and sand, in the proportions of 1 part cement to 1/2 part lime to 4-1/2 parts sand (by volume). The proportion of cement to lime may vary from 1:1/4 for hard brick to 1:3/4 for softer

brick, but in no case shall the volume of sand exceed three times the sum of the volume of cement and lime.

- E. Cement shall be Type II Portland Cement conforming to ASTM C-150, Standard Specifications for Portland Cement.
- F. The hydrated lime shall be Type S conforming to the ASTM Standard Specifications for Hydrated Lime for Masonry Purposes, Designation C207.
- G. The sand shall consist of inert natural sand conforming to the ASTM Standard Specifications for Concrete (Fine) Aggregates, Designation C33as follows:

<u>Sieve</u>	<u>Percent Passing by Weight</u>
3/8"	100%
#4	95-100%
#8	80-100%
#16	50- 85%
#30	25- 60%
#50	10- 30%
#100	2- 10%

Fineness Modulus 2.3 - 3.1

- H. Only clean bricks shall be used in brickwork for manholes. The brick shall be moistened by suitable means, as directed, until they are neither so dry as to absorb water from the mortar nor so wet as to be slippery when laid.
- I. Each brick shall be laid in full bed and joint of mortar without requiring subsequent grouting, flushing, or filling, and shall be thoroughly bonded as directed.
- J. Brick masonry shall be protected from too rapid drying by the use of burlap kept moist, or by other approved means, and shall be protected from the weather and frost, all as required.
- K. The manhole invert shall be u-shaped, matching pipe ID, to 80% pipe diameter in height. The manhole shelf shall slope at 0.75 inches/foot.

PART 3 EXECUTION

3.01 EXCAVATION AND BACKFILLING

Excavation, backfilling and compacting shall be performed in accordance with Section 02220.

3.02 INSTALLATION OF MANHOLE BASES AND SECTIONS

- A. Pre-cast bases shall be placed on a 6" layer of compacted bedding material as described in PART 2. The excavation shall be properly dewatered while placing bedding material and setting the base.
- B. Inlet and outlet stubs shall be connected and sealed in accordance with the manufacturers recommended procedure and as shown on the Standard Details, or cast integrally with the poured base.
- C. Barrel sections and cones of the appropriate combination of heights shall then be placed, using the procedure for sealing the horizontal joints, as shown on the Standard Details.
- D. A leakage test shall then be made as described in PART 3.04 of this Section.
- E. Following satisfactory completion of the leakage test, the frame and cover shall be placed on the top or some other means of preventing accidental entry by unauthorized persons, children, animals, etc., until the CONTRACTOR is ready to make final adjustment to grade.

3.03 SETTING FRAMES, COVERS AND GRATES

- A. Frames shall be set with the tops conforming accurately to the grade of the pavement or finished ground surface or as indicated on the Drawings. Frames shall be set concentric with the top of the masonry and in a full bed of mortar so that the space between the top of the manhole masonry and the bottom flange of the frame shall be completely filled and made watertight.

A thick ring of mortar extending to the outer edge of the masonry shall be placed all around and on the top of the bottom flange. The mortar shall be smoothly finished and have a slight slope to shed water away from the frame.

- B. Manhole covers shall be left in place in the frames on completion of other work at the manholes.

3.04 LEAKAGE TESTS FOR SEWER MANHOLES

- A. Leakage tests shall be made and observed by the ENGINEER on each manhole. The test shall be an ex-filtration test made as described below.
- B. After the manhole has been assembled in place, all lifting holes and interior joints shall be filled and pointed with an approved non-shrinking mortar. Rubber plugs for lifting holes, shall be inserted from the exterior, hammered to mid-wall and the hole filled with non-shrink grout, both sides. The test shall be made prior to placing the shelf and invert and before filling and pointing the horizontal joints. If the

groundwater table has been allowed to rise above the bottom of the manhole, it shall be lowered for the duration of the test. All pipes and other openings into the manhole shall be suitably plugged and the plugs braced to prevent blow out.

- C. The manhole shall then be filled with water to the top of the cone section. If the excavation has not been backfilled and observation indicates no visible leakage, that is, no water visibly moving down the surface of the manhole, the manhole may be considered to be satisfactorily watertight. If the test, as described above is unsatisfactory as determined by the ENGINEER, or if the manhole excavation has been backfilled, the test shall be continued. A period of time may be permitted if the CONTRACTOR so wishes to allow for absorption. At the end of this period, the manhole shall be refilled to the top of the cone, if necessary, and the measuring time of at least 8 hours begun. At the end of the test period, the manhole shall be refilled to the top of the cone, measuring the volume of water added. This amount shall be extrapolated to a 24-hour rate and the leakage determined on the basis of depth. The leakage for each manhole shall not exceed 1 gallon per vertical foot for a 24-hour period. If the test fails this requirement, but the leakage does not exceed 3 gallons per vertical foot per day, repairs by approved methods may be made as directed by the ENGINEER to bring the leakage within the allowable rate of 1 gallon per vertical foot per day. Leakage due to a defective section of joint or exceeding the 3 gallon per vertical foot per day, shall be cause for the rejection of the manhole. It shall be the CONTRACTOR's responsibility to uncover the manhole as necessary and to disassemble, reconstruct or replace it as directed by the ENGINEER. The manhole shall then be retested and, if satisfactory, interior joints shall be filled and pointed.
- D. The test may be conducted either before or after backfilling around the manhole. However, if the CONTRACTOR elects to backfill prior to testing, for any reason, it shall be at his own risk and it shall be incumbent upon the CONTRACTOR to determine the reason for any failure of the test. No adjustment in the leakage allowance will be made for unknown causes such as leaking plugs, absorption, etc., i.e., it will be assumed that all loss of water during the test is a result of leaks through the concrete. Furthermore, the CONTRACTOR shall take any steps necessary to assure the ENGINEER that the water table is below the bottom of the manhole throughout the test.
- E. If the groundwater table is above the highest joint in the manhole, and if there is no leakage into the manhole, as determined by the ENGINEER, such a test can be used to evaluate the water-tightness of the manhole. However, if the ENGINEER is not satisfied, the CONTRACTOR shall lower the water table and carry out the test as described herein before.
- F. Vacuum testing of manholes will be allowed in lieu of water testing with the following stipulations:
 - 1. Test vacuum shall be 10" Hg.

2. Maximum allowable vacuum shall be 10" Hg.
3. The test period shall be 60 seconds for 48" manholes, 75 seconds for 60" manholes, 90 seconds for 72" manholes, 105 seconds for 84" manholes and 120 seconds for 96" manholes.
4. Maximum allowable vacuum drop during test period shall be 1" Hg. (10" Hg. to 9" Hg.).

If the manhole fails the initial test, the CONTRACTOR shall locate the leak and make proper repairs. Leaks may be filled with a wet slurry of a polymer modified cementitious patching mortar. All manholes failing the initial test will be re-tested until satisfactory passing results are obtained. All manholes to be vacuum tested shall not be backfilled until testing is completed to the satisfaction of the ENGINEER.

PART 4 MEASUREMENT AND PAYMENT

4.01 MEASUREMENT

- A. The measurement for manholes shall be the actual number of manholes built complete in place measured from the invert of the outflowing sewer to the top Surface of the cast iron cover for the TYPE shown on the Contract Drawings.
- B. Inside drop piping will be measured in vertical feet from the invert of the elbow at the bottom to the invert of the influent pipe.

4.02 PAYMENT

- A. Payment for manholes based on depth category defined in unit price proposal will constitute full compensation for furnishing all plant, labor, equipment, appliances and materials, and performing all operations in connection with the satisfactory installation of new manholes under the specifications herein, and will include excavation and backfill, furnishing and- installing bedding material, dewatering, furnishing and installing frame and cover, invert and shelf, connecting the sewer to the manhole, and testing for leakage.
- B. No separate payment will be made for removal and disposal of existing manholes, alteration to existing manholes including bulkheading existing sanitary sewer connections, coring new entrances for pipe in manholes, cutting or plugging existing pipe, and altering existing paved inverts, or other work required to complete the sanitary sewerage system.

END OF SECTION

SANITARY MANHOLES
02330-07

SECTION 02530

DEWATERING, CONTROL AND DIVERSION OF WATER

PART 1 GENERAL

1.01 SCOPE

- A. The work covered under this item includes furnishing of all plant, labor, equipment, appliances and materials, and performing all operations in connection with providing and maintaining the dewatering of all WORK areas connected with the installation of all pipelines and structures, and for diverting and controlling the flows of all water courses, surface and subsurface water encountered in the installation of all pipelines and structures; to protect the CONTRACT WORK against damage by flooding and unconfined flow of water; for providing ditches and other work for the control of water courses and of surface water; for the temporary diversions and control of water courses; for the furnishing, installing, maintaining and removal of all facilities or WORK areas and the satisfactory performance of dewatering of WORK areas and the control and temporary diversion of all water encountered; and all other work necessary to obtain and maintain in dry condition all excavations and WORK areas.
- B. The CONTRACTOR shall be responsible for designing, scheduling, providing, maintaining and removing all dewatering, control, diversion and other facilities, including all pumping and appurtenant equipment required to maintain in a suitable dewatered condition the areas in which excavations and construction related to the installation of all pipelines and structures are to be conducted.

1.02 DEWATERING EXCAVATIONS:

- A. The excavations for pipelines, structures and appurtenant work are to some extent below existing groundwater levels or stream flow. The CONTRACTOR shall construct and maintain all pumps, drains, wellpoints or any other facility for the control, collection and disposal of groundwater or surface and subsurface water encountered in the performance of the CONTRACT WORK and provide all pumps, piping and ditching for the removal of water from the trenches and excavations so that all trenches and excavations may be kept free from water and so that all construction work may be performed in the dry.
- B. Any damage to existing work or the CONTRACT WORK resulting from the failure of the dewatering operations of the CONTRACTOR and any damage resulting from the failure of the CONTRACTOR to maintain the areas of all work in a suitable dry condition shall be repaired by the CONTRACTOR as directed by the ENGINEER at no additional expense to the OWNER.

- C. The CONTRACTOR's pumping and dewatering operations shall be carried out in such a manner that no loss of soil will result from these operations. Precautions shall be taken to protect new and existing work from flooding or damage during storms or from other causes. Pumping shall be continuous where directed and as necessary to protect the WORK and to maintain satisfactory progress.
- D. All pipelines or structures not stable against uplift during construction or prior to completion shall be thoroughly braced or otherwise protected. Water from the trenches, excavations and drainage operations shall be disposed of in such a manner as will cause no injury to public health, public or private property, WORK completed or to the WORK in progress.
- E. Dewatering of excavations shall be accomplished by approved methods, which have a background record of successful dewatering of excavations of the type employed for the CONTRACT WORK and the subsurface conditions encountered in the WORK. The CONTRACTOR shall construct ditches, do all grading and do all other work as may be necessary to divert and exclude surface water and water from dewatering operations from excavations and WORK areas.

1.03 COFFERDAMS

- A. Where cofferdams are necessary for the dewatering, control and diversion of water encountered so that the CONTRACT WORK may be performed in the dry, the CONTRACTOR shall design, furnish, install, maintain and remove all such cofferdam facilities. Cofferdams shall be safely designed to withstand all imposed loads and so as to prevent injury to persons and prevent damage to existing structures and property and the WORK; they shall be carried to adequate depths to permit a reasonable change in depths of the WORK to be constructed and of heights to prevent flooding; they shall be as watertight as necessary for the performance of the construction of the CONTRACT WORK in the dry; and shall be of such dimensions as to give Sufficient clearance for construction and inspection of the CONTRACT WORK and to permit installation of dewatering facilities.
- B. The CONTRACTOR shall be solely responsible .for the design, construction, adequacy and safety of all cofferdam facilities. Cofferdams with all sheeting and bracing involved shall be removed by the CONTRACTOR after completion of the permanent construction.

1.04 DIVERSION OF WATER COURSES

- A. The CONTRACTOR shall be responsible for providing and maintaining all temporary construction, ditching, grading, sheeting and bracing, riprap, and appurtenant work for the temporary diverting of water courses encountered and which is necessary to permit the construction of the CONTRACT WORK in the dry.

- B. The CONTRACTOR shall be responsible for performing the WORK in a manner to prevent injury to persons or the public health and to prevent damage to existing work and the construction of the CONTRACT WORK.
- C. Upon completion of the permanent construction of the CONTRACT WORK, the CONTRACTOR shall remove all temporary construction and shall do all necessary earthwork and grading to restore the areas disturbed by the CONTRACTOR's operations to their original condition or to such other condition as indicated or directed.

1.05 CONTROL OF SURFACE AND SUBSURFACE WATER:

- A. The CONTRACTOR shall provide all WORK and facilities necessary for the control of all surface and subsurface water. Water flows shall not be permitted to flow into or through excavations in which new construction is in progress or which has been partially completed.
- B. The CONTRACTOR shall not restrict or close off the natural flow of water in such a way that ponding or flooding will occur and shall at all times conduct his WORK in a manner to prevent flooding of public or private property and to prevent damage to public or private property and the new construction by flooding. All damages resulting from flooding and/or restriction of flows shall be the sole responsibility of the CONTRACTOR, at no additional expense to the CITY.

PART 2 MEASUREMENT AND PAYMENT

2.01 There will be no measurement or separate payment for dewatering, control and diversion of all surface and subsurface water related to the installation of all pipelines and structures, together with all appurtenant work and temporary construction and facilities necessary to obtain and maintain in a dry condition all excavations and WORK areas for the installation of pipelines and structures, complete and in a satisfactory manner.

2.02 The cost of such materials and WORK will be considered as included in the CONTRACT unit or lump sum price bid for the specific pipe in the CONTRACT, as listed in the bid; which price and payment shall constitute full compensation for furnishing, installing and maintaining all equipment, facilities, construction and appurtenant work necessary for the satisfactory dewatering of all WORK areas and for the control and diversion of all surface and subsurface water encountered in the WORK areas; for protecting all existing and new construction WORK against damage by flooding and unconfined flow of water; for providing temporary ditches and other WORK; for the temporary diversion and control of water courses encountered; for the draining, pumping and bailing of trenches and excavations and the satisfactory handling and disposal of all water encountered; for all earthwork including excavation, ditching, filling, backfilling and grading for control and diversion of water and water courses; for furnishing, driving, installing and

removing all sheeting and bracing and cofferdam construction; for protection of persons, property, utilities and the construction from injury or damage and for making good any such injury or damage; for designing, scheduling, providing, maintaining and removing all dewatering, control, diversion and other facilities including all wellpoints, pumps and such other equipment and appurtenances required to maintain in a suitable dewatered condition the areas in which excavations and/or construction are to be conducted; and for all labor, equipment plant, materials, supplies, tools manipulation, maintenance and other incidental costs and appurtenant work necessary to satisfactorily complete the CONTRACT WORK as specified and as directed.

END OF SECTION

SECTION 02600

PAVING AND SURFACING

PART 1. SCOPE

- 1.01 The work covered by this section of the specifications consists in furnishing all plant, labor, equipment, appliances and materials and in performing all operations in connection with the replacement of pavement over trenches or other openings made during construction, complete, in strict accordance with this section of the Specifications and applicable Drawings and subject to the terms and conditions of the Contract.
- 1.02 The Contractor shall replace all pavement which has been removed or damaged during construction operations. In trenches, the finished grade shall exactly match the undisturbed grade. Replacement shall be made at a time agreeable to the Engineer.
- 1.03 Pavement replacement shall include satisfactory repair by the Contractor of sidewalks, driveways and any other surface disturbed by his operations.
- 1.04 Paving material and methods of placement shall be fully in accordance with the State of Connecticut, Standard Specifications, or as indicated on the Contract Drawings.

PART 2. BITUMINOUS CONCRETE

- 2.01 **Materials:** The materials for the bituminous concrete mixture, tack coat, sources of supply, formula for mix, mix tolerances, approval of mix formula and the control of the mixture shall conform to the requirements of Article M.04.01 of the Standard Specifications for Class 1 and Class 2 as shown on the detail sheets.
- 2.02 **Trimming of Edges:** Edges of existing pavement shall be cut in straight lines before excavation as specified in Section 02220, Part 2, Paragraph 2.07. Before placing permanent type "hot mix" all edges shall be re-trimmed as required to provide straight lines and vertical faces.
- 2.03 **Sub-grade:** In all roadway areas, gravel base course and processed aggregate base course shall be placed and compacted during backfill to provide a sub-grade, all as specified in Section 02220 and to the dimensions shown on the detail drawings. Bituminous concrete walks and driveways shall receive a base course and bituminous concrete pavement as shown on the detail drawings.
- 2.04 All trenches shall be thoroughly compacted prior to placing permanent pavement.

PART 3. MEASUREMENT

- 3.01 Permanent bituminous pavement replacement/repair for all roadway areas will be measured by the actual number of linear feet of material placed and measured along centerlines of sewer including manholes in roadways in a horizontal plane to the full “trench width” each side of trench width as shown on the detail drawings.
- 3.02 Pavement area outside of the limits defined in 3.01 above and beyond the installed length of sewer will be considered by the Engineer to be destroyed by the Contractor’s carelessness or improper construction methods. Sidewalks and driveways in trench locations and other areas disturbed by the construction will not be measured for payment.
- 3.03 No separate measurement will be made for backfilling, compaction, maintenance of temporary pavement, preparation of sub-grade, base course or disposal of surplus materials.

PART 4. PAYMENT

- 4.01 Permanent bituminous pavement will be paid for at the Contract Unit Price bid for Bituminous Pavement Replacement per square yard of pavement replaced in roadways.
- 4.02 These unit prices shall include all hot and cold bituminous material, base courses, preparation of the sub-grade, saw cutting, joint sealing, compaction and testing, maintenance of the temporary pavement, disposal of surplus material, all labor, equipment, tools, etc. and all work incidental to complete the item as specified.

END OF SECTION

SECTION 03005

UTILITY CONFLICT RESOLUTION

PART 1. GENERAL

The work covered by this section consists of work and procedures to be adhered to by the Contractor when a utility main and lateral, duct, service connection or structure is found to be in direct conflict with the proposed work in this contract. A direct conflict shall be defined as a condition where the proposed utility pipe or structure and the existing utility occupy the same physical space.

PART 2. EXECUTION

The Contractor shall immediately notify the Engineer when it is determined that a utility main and lateral, duct, service connection or structure is found to be in direct conflict with the proposed work.

The Engineer will determine whether field adjustment or a change in the design will avoid said conflict and shall issue a field order to the Contractor for said design change.

If the Engineer determines that said utility must be removed and replaced in a new location, the Contractor shall immediately contact the owner of said utility and request that it be removed and replaced to resolve the conflict or, if approved by the utility company, the Contractor shall complete the relocation work with his own forces under the supervision of the utility company.

The Contractor shall assist the utility company as requested for the relocation work. This work may include pavement cutting and removal, excavation and backfilling, temporary and permanent pavements and all other work necessary to resolve the conflict.

All costs charged by the utility company, if any, for the removal and relocation of the utility main and lateral, duct, service connection or structure, shall be borne by the City.

PART 3. MEASUREMENT

This work will not be measured for payment.

PART 4. PAYMENT

This work will be paid for at the Contract Unit Price bid per each for “Utility Conflict Resolution”, which price shall include all labor, material, equipment, tools, utility coordination, utility charges, down time and delays and all other costs necessary or incidental to complete the item as specified.

There will be no payment for any costs, including down time, associated with the relocation of existing utilities that can be relocated by deflecting the existing utility line under the supervision of the respective utility owner without removal or replacement or for conflicts that are resolved by a field adjustment or design change to the proposed work.

F. EXECUTIVE ORDERS

THE CONTRACTOR OR SUBCONTRACTOR AGREES, AS PART CONSIDERATION HEREOF, THAT THIS CONTRACT IS SUBJECT TO THE GUIDELINES AND RULES ISSUED BY THE STATE LABOR COMMISSIONER TO IMPLEMENT EXECUTIVE ORDER NO. THREE, AND THAT HE WILL NOT DISCRIMINATE IN HIS EMPLOYMENT PRACTICES OR POLICIES, WILL FILE ALL REPORTS AS REQUIRED, AND WILL FULLY COOPERATE WITH THE STATE OF CONNECTICUT AND THE STATE LABOR COMMISSIONER.

THE GOVERNOR'S EXECUTIVE ORDER NO. THREE AND THE GUIDELINES AND RULES IMPLEMENTING THE GOVERNOR'S EXECUTIVE ORDER NO. THREE ARE INCLUDED ELSEWHERE HEREIN.

**GUIDELINES AND RULES OF STATE LABOR COMMISSIONER
IMPLEMENTING GOVERNOR'S EXECUTIVE ORDER NO. THREE**

SEC. 1. PERSONS AND FIRMS SUBJECT TO EXECUTIVE ORDER NO. THREE AND GUIDELINES AND RULES.

- a. Every contractor or subcontractor as defined in Sec. 2 hereof, supplier of goods or services, vendor, bidder and prospective contractor or subcontractor, having ten or more employees as defined in Sec. 3 of these Guidelines, having or entering into or bidding to enter into any type of contractual relationship with the State of Connecticut or any of its agencies, boards, commissions, departments or officers, and if the consideration, cost, subject matter or value of the goods or services exceeds \$5,000.00, shall be subject to the Governor's Executive Order No. Three and these Guidelines and Rules.
- b. A copy of the Governor's Executive Order No. Three and these Guidelines and Rules shall be available to each said contractor, subcontractor, supplier, vendor, bidder and prospective contractor and subcontractor, and the said Governor's Executive Order No. Three and these Guidelines and Rules shall be incorporated by reference and made a part of the contract, purchase order, agreement or document concerned. A copy of the Governor's Executive Order No. Three and of these Guidelines and Rules shall be furnished to a contracting party or bidder on request.
- c. All persons, partnerships, associations, firms, corporations and other entities having less than ten employees as defined in Sec. 3 at the time of the bid and execution of the contract and continuing through the performance of the contract are exempt from the provisions of the said Governor's Executive Order No. Three and these Guidelines and Rules. All contracts, subcontracts, purchase orders and agreements wherein the consideration is \$5,000.00 or less shall be exempt from Governor's Executive Order No. Three and from these Guidelines and Rules.

SEC. 2. SUBCONTRACTORS

As used herein, subcontractors are persons, partnerships, associations, firms or corporations or other entities having a contractual relationship with a contractor who in turn has a contract with the State of Connecticut or any of its agencies, boards, commissions or departments. Subcontractors below this tier are exempt from the Governor's Executive Order No. Three and from these Guidelines and Rules.

SEC. 3. EMPLOYEES

As used herein, employees are persons working full or part time irrespective of personnel classification whose wages, salaries or earnings are subject to the Federal Insurance Contribution Act and/or to Federal Withholding Tax as a matter of law (whether in fact or not any actual withholding occurs in a given case), in an employee-employer relationship at the time of bid, contract execution, or offer or acceptance, and/or during anytime thereafter during the existence of the performance period of the contract to the conclusion thereof.

SEC. 4. REPORTS

- a. Prior to the execution of the contract or prior to acceptance of a bid, as the case may be, the contractor, subcontractor, bidder or vendor shall file a report with the State Labor Commissioner, which report shall be complete and contain all of the information therein prescribed. The report shall be on Form E.O. 3-1, a facsimile of which is attached hereto and made a part hereof, or in lieu thereof the contractor, subcontractor, bidder or vendor shall submit a detailed report containing all of the information required in Form E.O. 3-1.
- b. The Labor Commissioner may require the filing of additional reports prior to final payment or prior to any renewal or extension of the contract and during the duration of the contract at such times as the Commissioner may, in his discretion, from time to time deem necessary. The Labor Commissioner may require the filing of additional information or reports, and the contractor, subcontractor, bidder or

vendor shall furnish said information or reports within the times prescribed by the Labor Commissioner.

- c. The Labor Commissioner may, at his discretion, also require timely statistical reports on the number of minority employees employed in the performance of the contract, and the Labor Commissioner may define such minority groups or persons.
- d. Reports filed pursuant to these Guidelines and Rules in implementation of Executive Order No. Three are not public records subject to public inspection, but may be inspected only by federal and state officials having jurisdiction and authority to investigate matters of this type. All federal and state agencies empowered by law to investigate matters relating to Executive Order No. Three shall have access to these reports for inspection or copying during regular business hours.
- e. Any person who willfully, wantonly or through negligence destroys or permits to be destroyed, alters or allows to be altered after filing, any reports submitted in compliance herewith shall be subject to penalties as prescribed by law.

SEC. 5. Mandatory Clauses in Documents

- a. All contracts shall contain the following provisions verbatim:

This contract is subject to the provisions of Executive Order No. Three Governor Thomas J. Meskill promulgated June 16, 1971 and, as such this contract may be cancelled, terminated or suspended by the State Labor Commissioner for violation of or noncompliance with said Executive Order No. Three, or any state or federal law concerning non-discrimination, notwithstanding that the Labor Commissioner is not a party to this contract. The parties to this contract, as part of the consideration hereof, agree that said Executive Order No. Three is incorporated herein by reference and made a part hereof. The parties agree to abide by said Executive Order and agree that the State Labor Commissioner shall have continuing jurisdiction in respect to contract performance in regard to non-discrimination, until the contract is completed or terminated prior to completion.

The contractor, subcontractor, bidder, vendor agrees as part consideration hereof, that this (order) (contract) is subject to the Guidelines and Rules issued by the State Labor Commissioner to implement Executive Order No. Three, and that he will not discriminate in his employment practices or policies, will file all reports as required, and will fully cooperate with the State of Connecticut and the State Labor Commissioner.

These provisions are in addition to and not in lieu of other clauses required by law.*.

*N.B. The above paragraphs contain requirements additional to those set forth in July 16, 1971 directive to State agencies.

- b. Every purchase order or like form submitted by a vendor or bidder, as applicable, shall contain the following clause verbatim:

Vendor agrees, as part of the consideration hereof, that this order is subject to the provisions of Executive Order No. Three and the Guidelines and Rules issued by the Labor Commissioner implementing said Order as to non-discrimination, and vendor agrees to comply therewith.

- c. Where preprinted contract forms have been prescribed by federal authority and the rules of the federal agency prohibit the alteration thereof, the compliance officer of the State agency concerned shall submit to the Labor Commissioner a suggested short form or addendum acceptable to the federal agency, and in such cases, after approval by the Labor Commissioner, said clauses may be substituted.

SEC. 6. COOPERATION OF STATE AGENCIES, BOARDS AND COMMISSIONS

Every agency, board, commission and department of the State of Connecticut shall cooperate with the Labor Commissioner in the implementation of Executive Order No. Three and shall furnish such information and assistance as the Labor Commissioner may from time to time request.

SEC. 7. INVESTIGATIONS, COMPLAINTS

The Labor Commissioner may initiate an investigation upon receipt of a complaint alleging discrimination. The Labor Commissioner may request that an investigation be conducted by the State agency, which is the party to the contract in question. Investigations shall be conducted in accordance with acceptable legal standards, safeguarding the rights of all parties involved, and obtaining all of the relevant facts necessary for a complete determination of the issues. If the Labor Commissioner is not satisfied with the investigation or any part thereof he may order it to continue or to proceed further.

SEC. 8. HEARINGS

The Labor Commissioner or officers designated by the heads of the State agencies, boards and commissions may conduct hearings on complaints filed. Hearings shall be held only after a report of the complaint has been filed with the Labor Commissioner and after a hearing on the complaint has been authorized or directed by the Labor Commissioner. Hearings shall be conducted in accordance with the accepted principles of administrative law. All parties shall be afforded the opportunity to a full, fair impartial, and complete hearing, the opportunity to examine and cross examine witnesses and to be present at all sessions of the hearing. If any party is vulnerable to a charge of a violation of the law, he shall be afforded the opportunity to procure counsel who may be present at the hearing.

SEC. 9. EQUAL EMPLOYMENT OPPORTUNITIES

All State contracting agencies, employers and labor unions shall use their best efforts to provide equal employment opportunities to all apprentices and to provide training, employment and upgrading opportunities for disadvantaged workers in accordance with section 31-51(d) of the General Statutes.

SEC. 10. DUTIES OF CONTRACTING AGENCIES

All State contracting agencies shall be responsible for compliance with said Executive Order and with all State and Federal laws relating to equal employment opportunities. All contracting agencies conducting investigations for the Labor Commissioner pursuant to Executive Order No. Three and these Guidelines and Rules shall report to the Labor Commissioner the action taken or recommended with regard to each complaint filed. Each officer of the executive department, every commissioner, and each executive head of each State agency, board and commission in the executive branch of the State government is expected to assume the responsibility of seeing to complete compliance with the Governor's Executive Order No. Three and shall forthwith take steps to assure and guarantee that there shall be no discrimination within their departments, agencies, boards or commissions in the performance of any State contract or subcontract on the basis of race, creed, color, sex, age, national origin or national ancestry, or in any way in violation of any State or Federal law relating thereto.

BY VIRTUE OF THE AUTHORITY VESTED IN ME PURSUANT TO EXECUTIVE ORDER NO. THREE EFFECTIVE JULY 16, 1971, AND THE GENERAL STATUTES OF CONNECTICUT.

Dated at Wethersfield, Connecticut this 19th day of November, 1971

Jack A. Fusari
Labor Commissioner

**STATE OF CONNECTICUT
BY HIS EXCELLENCY
THOMAS J. MESKILL
GOVERNOR**

EXECUTIVE ORDER NO. THREE

WHEREAS, sections 4-61d(b) and 4-114a of the 1969 supplement to the general statutes require nondiscrimination clauses in state contracts and subcontracts for construction on public buildings, other public works and goods and services, and

WHEREAS, section 4-61e(c) of the 1969 supplement to the general statutes requires the labor department to encourage and enforce compliance with this policy by both employers and labor unions, and to promote equal employment opportunities, and

WHEREAS, the government of this state recognizes the duty and desirability of its leadership in providing equal employment opportunity, by implementing these laws,

NOW, THEREFORE, I, THOMAS J. MESKILL, Governor of the State of Connecticut, acting by virtue of the authority vested in me under section twelve of article fourth of the constitution of the state, as supplemented by section 3-1 of the general statutes, do hereby ORDER and DIRECT, as follows, by this Executive Order:

I

The labor commissioner shall be responsible for the administration of this Order and shall adopt such regulations as he deems necessary and appropriate to achieve the purposes of this Order. Upon the promulgation of this Order, the commissioner of finance and control shall issue a directive forthwith to all state agencies, that henceforth all state contracts and subcontracts for construction on public buildings, other public works and goods and services shall contain a provision rendering such contract or subcontract subject to this Order, and that such contract or subcontract may be cancelled, terminated or suspended by the labor commissioner for violation of or noncompliance with this Order or state or federal laws concerning nondiscrimination, notwithstanding that the labor commissioner is not a party to such contract or subcontract.

II

Each contractor having a contract containing the provisions prescribed in section 4-114a of the 1969 supplement to the general statutes, shall file, and shall cause each of his subcontractors to file, compliance reports with the contracting agency or the labor commissioner, as may be directed such reports shall be filed within such times and shall contain such information as to employment policies and statistics of the contractor and each subcontractor, and shall be in such form as the labor commissioner may prescribe. Bidders or prospective contractors or subcontractors may be required to state whether they have participated in any previous contract subject to the provisions of this Order or any preceding similar Order, and in that event to submit on behalf of themselves and their proposed subcontractors compliance reports prior to or as an initial part of their bid or negotiation of a contract.

III

Whenever the contractor or subcontractor has a collective bargaining agreement or other contract or understanding with a labor organization or employment agency as defined in section 31-122 of the general statutes, the compliance report shall identify the said organization or agency and the contracting agency or the labor commissioner may require a compliance report to be filed with the contracting agency or the labor commissioner, as may be directed, by such organization or agency, signed by an authorized officer or agent of such organization or agency, with supporting information, to the effect that the signer's practices and policies, including but not limited to matters concerning personnel, training, apprenticeship, membership, grievance and representation, and upgrading, do not discriminate on grounds of race, color, religious creed, age, sex or national origin, or ancestry of any individual, and that the signer will either affirmatively cooperate in the implementation of the policy and provisions of this Order, or that it consents and agrees that recruitment, employment and the terms and conditions of employment under the proposed contract shall be in accordance with the purposes and provisions of the Order.

IV

The labor commissioner may by regulation exempt certain classes of contracts, subcontracts or purchase orders from the implementation of this Order, for standard commercial supplies or raw materials, for less than specified amounts of money or numbers of workers or for subcontractors below a specified tier. The labor commissioner may also provide by regulation for the exemption of facilities of a contractor which are in all respects separate and distinct from activities of the contractor related to the performance of the state

contract, provided only that such exemption will not interfere with or impede the implementation of this Order, and provided further, that in the absence of such an exemption, all facilities shall be covered by the provisions of this Order.

V

Each contracting agency shall be primarily responsible for obtaining compliance with the regulations of the labor commissioner with respect to contracts entered into by such agency or its contractors. All contracting agencies shall comply with the regulations of the labor commissioner in discharging their primary responsibility for securing compliance with the provisions of contracts and otherwise with the terms of this Order and of the regulations of the labor commissioner issued pursuant to this Order. They are directed to cooperate with the labor commissioner and to furnish the labor commissioner such information and assistance as he may require in the performance of his functions under this Order. They are further directed to appoint or designate from among the personnel of each agency, compliance officers, whose duty shall be to seek compliance with the objectives of this Order by conference, conciliation, mediation, or persuasion.

VI

The labor commissioner may investigate the employment practices and procedures of any state contractor or subcontractor and the practices and policies of any labor organization or employment agency hereinabove described, relating to employment under the state contract, as concerns nondiscrimination by such organization or agency as hereinabove described, or the labor commissioner may initiate such investigation by the appropriate contract agency, to determine whether or not the contractual provisions hereinabove specified or statutes of the state respecting them have been violated. Such investigation shall be conducted in accordance with the procedures established by the labor commissioner and the investigating agency shall report to the labor commissioner any action taken or recommended.

VII

The labor commissioner shall receive and investigate or cause to be investigated complaints by employees or prospective employees of a state contractor or subcontractor or members or applicants for membership or apprenticeship or training in a labor organization or employment agency hereinabove described, which allege discrimination contrary to the contractual provisions specified hereinabove or state statutes requiring nondiscrimination in employment opportunity. If this investigation is conducted for the labor commissioner by a contracting agency, that agency shall report to the labor commissioner what action has been taken or is recommended with regard to such complaints

VIII

The labor commissioner shall use his best efforts, directly and through contracting agencies, other interested federal, state and local agencies, contractors and all other available instrumentalities, including the commission on human rights and opportunities, the executive committee on human rights and opportunities, and the apprenticeship council under its mandate to provide advice and counsel to the labor commissioner in providing equal employment opportunities to all apprentices and to provide training, employment and upgrading opportunities for disadvantaged workers, in accordance with section 31-51(d) of the 1969 supplement to the general statutes, to cause any labor organization or any employment agency whose members are engaged in work under government contracts or referring workers or providing or supervising apprenticeship or training for or in the course of work under a state contract or subcontract to cooperate in the implementation of the purposes of this Order. The labor commissioner shall in appropriate cases notify the commission on human rights and opportunities or other appropriate state or federal agencies whenever it has reason to believe that the practices of any such organization or agency violate equal employment opportunity requirements of state or federal law.

IX

The labor commissioner or any agency officer or employee in the executive branch designated by regulation of the labor commissioner may hold such hearings, public or private, as the labor commissioner may deem advisable for compliance, enforcement or educational purposes under this Order.

X

(a) The labor commissioner may hold or cause to be held hearings, prior to imposing ordering or recommending the imposition of penalties and sanctions under this Order. No order for disbarment of any contractor from further state contracts shall be made without affording the contractor an opportunity for a hearing. In accordance with such regulations as the labor commissioner may adopt, the commissioner or the appropriate contracting agency may

(1) Publish or cause to be published the names of contractors or labor organizations or employment agencies as hereinabove described which it has concluded have complied or failed to comply with the provisions of this Order or the regulations of the labor commissioner in implementing this Order.

(2) Recommend to the commission on human rights and opportunities that in cases in which there is substantial or material violation or threat thereof of the contractual provision or related state statutes concerned herein, appropriate proceedings be brought to enforce them, including proceedings by the commission on its own motion under chapter 563 of the general statutes and the enjoining, within the limitations of applicable law, of organizations, individuals or groups who prevent directly or indirectly or seek to prevent directly or indirectly compliance with the provisions of this Order.

(3) Recommend that criminal proceedings be brought under chapter 939 of the general statutes.

(4) Cancel, terminate, suspend or cause to be cancelled, terminated, or suspended in accordance with law any contract or any portion or portions thereof for failure of the contractor or subcontractor to comply with the nondiscrimination provisions of the contract. Contracts may be cancelled, terminated, suspended absolutely or their continuance conditioned upon a program for fixture compliance approved by the contracting agency.

(5) Provide that any contracting agency shall refrain from entering into any further contracts or extensions or modifications of existing contracts with any contractor until he has satisfied the labor commissioner that he has established and will carry out personnel and employment policies compliant with this Order.

(6) Under regulations prescribed by the labor commissioner each contracting agency shall make reasonable efforts within a reasonable period of time to secure compliance with the contract provisions of this Order by methods of conference conciliation, mediation or persuasion, before other proceedings shall be instituted under this Order or before a state contract shall be cancelled or terminated in whole or in part for failure of the contractor or subcontractor to comply with the contract provisions of state statute and this Order.

(b) Any contracting agency taking any action authorized by this Order, whether on its own motion or as directed by the labor commissioner or pursuant to his regulations shall promptly notify *him* of such action. Whenever the labor commissioner makes a determination under this Order, he shall promptly notify the appropriate contracting agency and other interested federal, state and local agencies of the action recommended. The state and local agency or agencies shall take such action and shall report the results thereof to the labor commissioner within such time as he shall specify.

XI

If the labor commissioner shall so direct, contracting agencies shall not enter into contracts with any bidder or prospective contractor unless he has satisfactorily complied with the provisions of this Order, or submits a program, for compliance acceptable to the labor commissioner, or if the labor commissioner so authorizes, to the contracting agency.

XII

Whenever a contracting agency cancels or terminates a contract, or a contractor has been disbarred from, further government contracts because of noncompliance with the contract provisions with regard to nondiscrimination, the labor commissioner or the contracting agency shall rescind such disbarment, upon the satisfaction of the labor commissioner that the contractor has purged himself of such noncompliance and will thenceforth carry out personnel and employment policies of nondiscrimination in compliance with the provision of this order.

XIII

The labor commissioner may delegate to any officer, agency or employee in the executive branch any function or duty of the labor commissioner under this Order except authority to promulgate regulations of a general nature.

XIV

This Executive Order supplements the Executive Order issued on September 28, 1967. All regulations, orders, instructions, designations and other directives issued heretofore in these premises, including those issued by the heads of various departments or agencies under or pursuant to prior order or statute, shall remain in full force and effect, unless and until revoked or superceded by appropriate authority, to the extent that they are not inconsistent with this Order.

This Order shall become effective thirty days after the date of this Order.

Dated at Hartford, Connecticut, this 16th day of June, 1971.

Thomas J. Meskill, GOVERNOR

Filed this 16th day of June, 1971.

SECRETARY OF THE STATE (DEPUTY)

STATE OF CONNECTICUT
BY HIS EXCELLENCY
THOMAS J. MESKILL
GOVERNOR

EXECUTIVE ORDER NO. SEVENTEEN

WHEREAS, Section 31-237 of the General Statutes of Connecticut as amended requires the maintaining of the established free services of the Connecticut State Employment Service to both employers and prospective employees and

WHEREAS, Section 31-5 of the General Statutes of Connecticut requires that no compensation or fee shall be charged or received directly or indirectly for the services of the Connecticut State Employment Service and

WHEREAS, large numbers of our citizens who have served in the Armed Forces of our nation are returning to civilian life in our state and seeking employment in civilian occupations and

WHEREAS, we owe a duty as well as gratitude to these returning veterans including the duty to find suitable employment for them and

WHEREAS, many of our handicapped citizens are fully capable of employment and are entitled to be placed in suitable employment and

WHEREAS, many of the citizens of our state who are unemployed are unaware of the job openings and employment opportunities which do in fact exist in our state and

WHEREAS, notwithstanding the free services of the Connecticut State Employment Service, many of our Connecticut employers do not use its free services or do not avail themselves fully of all of the services offered,

NOW, THEREFORE, I THOMAS J. MESKILL, Governor of the State of Connecticut, acting by virtue of the authority vested in me under the fourth article of the Constitution of the State and in accordance with Section 3-1 of the General Statutes, do hereby ORDER and DIRECT, as follows, by this Executive Order:

I

The Labor Commissioner shall be responsible for the administration of this Order and shall do all acts necessary and appropriate to achieve its purpose. Upon promulgation of this Order, the Commissioner of Finance and Control shall issue a directive forthwith to all state agencies, that henceforth all state contracts and subcontracts for construction on public buildings, other public works and goods and services shall contain a provision rendering such contract or subcontract subject to this Order, and that such contract or subcontract may be cancelled, terminated or suspended by the Labor Commissioner for violation of or noncompliance with this Order, notwithstanding that the Labor Commissioner is not a party to such contract or subcontract.

II

Every contractor and subcontractor having a contract with the State or any of its agencies, boards, commissions, or departments, every individual partnership, corporation, or business entity having business with the state or who or which seeks to do business with the state, and every bidder or prospective bidder who submits a bid or replies to an invitation to bid on any state contract shall list all employment openings with the office of the Connecticut State Employment Service in the area where the work is to be performed or where the services are to be rendered.

III

All state contracts shall contain a clause which shall be a condition of the contract that the contractor and any subcontractor holding a contract directly under the contractor shall list all employment openings with the Connecticut State Employment Service. The Labor Commissioner may allow exceptions to listings of employment openings which the contractor proposes to fill from within its organizations from employees on the rolls of the contractor on the date of publication of the invitation to bid or the date on which the public announcement was published or promulgated advising of the program concerned.

IV

Each contracting agency of the state shall be primarily responsible for obtaining compliance with this Executive Order. Each contracting agency shall appoint or designate from among its personnel one or more persons who shall be responsible for compliance with the objectives of the Order.

V

The Labor Commissioner shall be and is hereby empowered to inspect the books, records, payroll and personnel data of each individual or business entity subject to this Executive Order and may hold hearings or conferences, formal or informal, in pursuance of the duties and responsibilities hereunto delegated to the Labor Commissioner.

VI

The Labor Commissioner or any agency officer or employee in the executive branch designated by regulation of the Labor Commissioner may hold such hearings, public or private, as the Labor Commissioner may deem advisable for compliance, enforcement or educational purposes under this Order.

VII

- a. The Labor Commissioner may hold or cause to be held hearings, prior to imposing, ordering, or recommending the imposition of penalties and sanctions under this Order. In accordance herewith, the Commissioner or the appropriate contracting agency may suspend, cancel, terminate, or cause to be suspended, cancelled, or terminated in accordance with law any contract or any portion or portions thereof for failure of the contractor or subcontractor to comply with the listing provisions of the contract. Contracts may be cancelled, terminated, suspended absolutely or their continuance conditioned upon a program for future compliance approved by the contracting agency.
- b. Any contracting agency taking any action authorized by this Order, whether on its own motion or as directed by the Labor Commissioner, shall promptly notify him of such action. Whenever the Labor Commissioner makes a determination under this Order, he shall promptly notify the appropriate contracting agency of the action recommended. The agency shall report the results to the Labor Commissioner promptly.

VIII

If the Labor Commissioner shall so direct, contracting agencies shall not enter into contracts with any bidder or prospective contractor unless he has satisfactorily complied with the provisions of this Order.

This Order shall become effective sixty days after the date of this Order.

Dated at Hartford, Connecticut, this 15th day of February, 1973.

Thomas J. Meskill, GOVERNOR

Filed this 15th day of February, 1973.

SECRETARY OF THE STATE (DEPUTY)