City of Oneida Department of Public Works

109 N. Main Street Oneida NY. 13421



CONTRACT DOCUMENTS Maple Drive Sanitary Sewer Repair

RICK ROSSI, MAYOR

COMMON COUNCIL

ANDREA HITCHINGS STEVE LAURETI BILL PAGANO THOMAS SIMCHIK JIM SZCZERBA ROB WINCHELL

<u>CITY ATTORNEY</u> NADINE C. BELL

CITY COMPTROLLER LEE ANN WELLS

<u>CITY ENGINEER</u> JEFFREY ROWE, PE

CITY OF ONEIDA 00001 INVITATION TO BID

Pursuant to a resolution dated **April 2, 2024**, the Common Council of the City of Oneida requestssealed bids for the **Maple Drive Sanitary Sewer Repair**.

Bids will be received on **May 16th**, **2024**, at the office of the purchasing agent, City of Oneida, 109 North Main Street, Oneida, New York, 13421, until 11:00 AM. local time, and there at said time publicly opened and read aloud. The bids shall be submitted in an envelope marked "**Maple Drive Sanitary Sewer Repair**", for the replacement of approximately 115 feet of 8-inch sanitary sewer main and the repair and reconnection of existing sewer laterals, located within Maple Drive. The bid documents may be found at the City of Oneida website: <u>www.oneidacityny.gov</u>. Copies of the bid documents may also be examined at no cost at the City of Oneida, City Engineer, 109 North Main Street, Oneida, New York, 13421

Questions concerning these contract documents shall be directed via email to Maxwell K. Reese, Civil Engineering Technician: <u>mreese@oneidacityny.gov</u>. Questions via phone will not be accepted, nor responded to.

The owner is exempt from the payment of sales and compensating use taxes of the State of New York and of cities and counties thereof on all material, equipment and supplies sold to the owner pursuant to this contract. Also exempt from such taxes are purchases by the contractor and his subcontractors of (A) Materials, equipment and supplies for use in erecting and improving any real property included in the project, provided that such materials, equipment and supplies are to become an integral component part of such structures, buildings or real property and (B) material, equipment and supplies other than those described in (A) above, to be sold to the owner pursuant to this contract. These taxes are not to be included in the bid.

Each bid must be accompanied by cash, certified check or bid bond in an amount not less than five percent (5%) of the Base Project Bid Amount in the form and subject to the conditions provided in information and completed Statement of Surety's Intent and Non-Collusive Bidding Certification forms.

Bidders are advised to submit the attached bid response form before submittal.

The Common Council of the City of Oneida reserves the right to waive any informalities in the bid and to reject any or all bids not in the best interest of the City of Oneida.

Prospective bidders are advised that the City of Oneida will strictly enforce those provisions of New York State Labor Law Sections 220 through 223 pertaining, but not limited to: maximum daily\weekly hours constructions workers are permitted to work, payment of prevailing wages, submission of certified payrolls, posting prevailing wage rates at the project site. The successful bidder will be responsible for the acquisition of all submissions pertaining to Labor Law from subcontractors employed in the work.

Each Bidder is cautioned to carefully read and to assess his\her ability, as well as each subcontractor's ability to comply, with all requirements of Section 00012.01, Insurance Provisions prior to submitting a bid.

Lee Ann Wells City Comptroller

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TO BIDDER

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SECTION 00011

00011.01 Specification Books to Remain Intact

Bidding sheets are to be returned in the specifications book and all bidding must be on the forms furnished.

00011.02 Bid Security (Last Revised: March 4, 2008)

Each bid for each contract must be accompanied by cash, bid bond, or by a certified check of the bidder payable to the City of Oneida, New York, in an amount not less than five percent (5%) of the amount of the bid. Such cash or certified check will be returned to all except the three lowest bidders on each contract within five (5) days after the formal opening of the bids, and the remaining cash or certified checks will be returned to the three lowest bidders within forty-eight (48) hours after approval by the owners attorney of the executed contract, and the insurance and security furnished, or if no contract has been so executed, within forty-five (45) days after the date of the opening of bids, upon demand of the bidder at any time thereafter so long as he has not been notified of the acceptance of the bid.

In the event that any bidder submits a bid on more than one contract, a separate certified check or bid bond or amount in cash, in the appropriate amount as specified above, shall be submitted as security with each bid. The submission of only one certified check in an amount sufficient to act as security on two or more bids may render informal any one, or all bids from the bidder.

Where alternate items are included in the bid, the amount of the bid security shall be not less than five percent (5%) of that alternate, or combination alternates that result in the highest bid.

A successful bidder upon his failure or refusal to execute a contract, within fifteen calendar days after he has been notified or the acceptance of his bid, shall forfeit to the CITY as liquidated damages for such failure or refusal the security deposited with his bid.

00011.03 Location and Description of Work

This project includes the replacement of approximately 115 linear feet of an 8-inch diameter sanitary sewer main located in Maple Drive in Oneida. The sewer main is located approximately 12 feet below grade and shall be replaced with an 8" PVC main. In addition, the CONTRACTOR shall be required to connect all residential sewer laterals, and repair and connect one 6-inch commercial sewer lateral to the replaced section of the main.

00011.04 Discrepancies in Bid Amount

Should any discrepancies be found in the contract bid, the bid amount stated in words shall supersede the numerical amount.

00011.05 Sales tax Exemption

The CITY is not subject to tax. CITY will sign exemption certificate when required.

00011.06 Bidders Qualifications

The CITY reserves the right to make such investigations as deemed necessary to determine the ability of the bidder to perform the work, and the bidder shall furnish to the CITY such information and date for this purpose as may be requested, including, but not limited to, the name, address and telephone number of previous clients. The CITY reserves the right to reject any bid if the evidence submitted by/or the investigation of such bidder is not properly qualified to carry out the obligations of the contract.

00011.07 Owners Right to Waiver Bid Informalities\Reject Bids

The CITY reserves the right to consider informal a bid not prepared and submitted in accordance with the provisions of these specifications, or to waive informalities in any bid received. The CITY also reserves the right to reject any and all bids as not being in the best interest of the CITY.

00011.08 Bid Withdrawal

No bidder may withdraw his bid until after forty-five days after the bids are opened, but may withdraw it at any time prior to the scheduled closing time for the reception of bids.

00011.09 Non-Collusion

In submitting this bid, the bidder must declare that he or she is, or they are, the only entity interested in said bid, that it is made without any connection with any person or persons making another bid for the same contract; that the bid is in all respects fair and without collusion, fraud or mental reservation; and that no official of the CITY or any person in the employ of the CITY is directly or indirectly interested in said bid or in any portion of the profits thereof.

00011.10 Contract May Not be Assigned, Conveyed, Transferred or Sublet

The bidder to whom a contract shall be let, granted or awarded is prohibited from assigning, transferring, conveying, subletting or otherwise disposing of the same, or his right, title or interest therein, or his power to execute such contract to any other person or corporation, except as provided in section 109, General Municipal Law.

00011.11 Bidder Disqualification

No bid for materials, supplies, equipment or services may be accepted from or a contract awarded to any person who has defaulted as surety or otherwise upon a contract or obligation to the CITY, or who may be otherwise disqualified under any act of the legislature not inconsistent with the Charter or Code.

00011.12 Addenda and Interpretation

No interpretation of the meaning of the plans, specifications or other portion of the contract documents will be made orally. Every request for such interpretation must be emailed to Civil Engineering Technician Max Reese via <u>mreese@oneidacityny.gov</u>, and to be given consideration must be received at the above address at least six (6) days prior to the date fixed for the opening of bids. Any and all such interpretations and any supplemental instructions will be in the form of written addenda, which, if issued, will be sent by certified mail, with return receipt requests, to all holders of contract documents at the respective addresses furnished for such purposes not later than four (4) days prior to the date fixed for the opening of bids. Failure of any bidder to receive any such addenda or interpretation shall not relieve said bidder from any obligation under his bid as submitted. All addenda so issued shall become part of the contract documents.

00011.13 Cautions to Bidders

Bidders shall be aware of the following before submitting their bids.

- 1. The Sanitary Sewer main to be replaced is approximately 12' below grade.
- 2. A submersible pump will be supplied by the CITY to carry waste upstream from the site.
- 3. The CONTRACTOR will be responsible for the proper and lawful removal of sewage from all laterals connected to the site.

00011.14 Response Form

Receipt Confirmation Form:

Complete the following form and return by e-mail to mreese@oneidacityny.gov upon receipt of Contract Documents. Submission of this form will ensure that any and all addenda regarding this request will be sent to you.

Contact Person:
Title:
Company:
Address:
City:
State:
Zip:
Telephone:
Email:

SECTION 00012

INSURANCES GUARANTEES AND BONDS

SECTION 00012 INSURANCES, GUARANTEE & BONDS

00012.01 INSURANCE PROVISIONS:

The CONTRACTOR and each sub-contractor, at its own expense, shall procure and maintain until final acceptance by the owner of the work covered by the contract, occurrence-based insurance for liability for damages imposed by law of the kinds and in the amounts hereinafter provided, for claims which may arise out of or result from the CONTRACTOR's or subcontractor's performance of the work, operations and any other obligations under the contract documents. Such policies of insurance shall be issued by a company or companies rated A- or better by A.M. Best Company, one to which the owner has no reasonable objection, and licensed to do business in the State of New York, and shall cover all operations under the contract whether performed by the CONTRACTOR or by sub-contractor.

Before commencing the work, the CONTRACTOR and each sub-contractor shall deliver to the owner certificates of insurance and endorsements (and other evidence of insurance requested by owner, for example, policies of insurance and all related endorsements) for each of the kinds of insurance required and endorsements described herein, satisfactory in form to the owner, showing that the CONTRACTOR and each sub-contractor has complied with this section. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with these Insurance Provisions will contain a provision or endorsement, and all of the CONTRACTOR's and subcontractors' certificates of insurance shall be delivered with attached endorsements and provisions, that:

▶ name the owner as an Additional Insured on a primary and non-contributing basis on all of the policies of insurance itemized below;

▶ the General Liability Aggregate applies to this project and to this project only, and to each location of this project;

▶ the coverage afforded will not be canceled, materially changed or renewal refused until at least 30 days prior written notice has been given to Owner.

Note: The Owner will accept an original letter from CONTRACTOR's and Subcontractor's Insurance Agency on said Agency's letterhead and executed by an officer thereof, containing the assurances set forth in the sample letter that follows Section 00012.

LIABILITY AND PROPERTY DAMAGE INSURANCE

Unless otherwise specifically required, each CONTRACTOR and subcontractor shall provide the following insurance coverages with limits of not less than the Minimum Limits noted below, or as otherwise required by law, whichever shall be greater:

Type of Policy	Minimum Limits
General Liability Insurance, Comprehensive, Occurrence Based, including:	
Commercial General Liability	\$1,000,000
Bodily Injury and Property Damage Liability	\$1,000,000
General Aggregate	\$2,000,000
Premises Operations, including explosion, collapse, and	\$1,000,000
underground operations (X, C and U coverages)	
Products-Completed Operations (Aggregate)	\$2,000,000
Personal and Advertising Injury (Employment Exclusion deleted)	\$1,000,000
Fire Damage Legal Liability (Each Occurrence)	\$1,000,000
Medical Expense (Any One Person)	\$ 10,000
Property Damage, Broad Form including Completed	\$1,000,000
Operations Contractual, including indemnification	
provisions for CONTRACTOR's obligations.	

The CONTRACTOR shall provide insurance coverage for portions of the work product stored off the site, in transit, and stored on the site but not incorporated into the site as full replacement cost basis without voluntary deductible.

Umbrella/Excess Liability (limits over primary coverage)	\$1,000,000
Aggregate	\$1,000,000

The Umbrella Form excess liability insurance limit shall be \$1 million (limit over primary coverage) for each occurrence and \$1 million aggregate (limit over primary coverage) for all Contracts.

In addition to, and any other proof of insurance that the owner may require, upon request of the owner, CONTRACTOR and subcontractor(s) shall submit true copies of all specified policies, with all endorsements and exclusions thereto. Certificates of Insurance, endorsements and/or policies which are found to be incomplete or not according to form shall be returned as unsatisfactory and proper documents shall then be provided or the CONTRACTOR shall be deemed to be in default. CONTRACTOR shall furnish to the owner, immediately, copies of any endorsements that are subsequently issued amending coverage or limits. All copies of certificates and correspondence relating thereto shall be directed to the owner.

AUTOMOBILE INSURANCE:

Automobile Liability Policy, providing coverage for all claims, Bodily Injury and Property Damage, against the CONTRACTOR, each sub-contractor, and the owner, as a result of work under the contract covering any vehicle, owned and non-owned with limits of not less than \$1,000,000 Each Accident.

WORKERS' COMPENSATION INSURANCE:

Insurance certificate for statutory amounts as prescribed by New York State Workers' Compensation Law §57 which reflects the City of Oneida as the certificate holder shall be provided by CONTRACTOR and each sub-contractor.

Note - ACORD forms are NOT acceptable proof of New York State worker's compensation or disability benefits insurance coverage. The only acceptable forms are:

Form #	Form Title	Issuing Agency
C-105.2 (9-07)	Certificate of NYS Workers	State of New York Workers'
	Compensation Insurance	Compensation Board
	Coverage	
U-26.3	Certificate of Workers' Compensation Insurance	New York State Insurance Fund <u>"www.nysif.com</u> "
SI-12 (10-03)	Certificate of Workers' Compensation Self - Insurance	State of New York Workers' Compensation Board
GSI-105.2 (2-02)	Certificate of Participation in Workers' Compensation Group Self - Insurance	State of New York Workers' Compensation Board

NEW YORK STATE DISABILITY BENEFITS INSURANCE:

Insurance certificate for statutory amounts as prescribed by New York State Workers' Compensation Law §220 (8) which reflects the City of Oneida as the certificate holder shall be provided by CONTRACTOR and each sub-contractor.

Note - ACORD forms are NOT acceptable proof of New York State worker's compensation or disability benefits insurance coverage. The only acceptable forms are:

Form #	Form Title	Issuing Agency
DB-120.1 (5/06)	Certificate of Disability Benefits Insurance	State of New York Workers' Compensation Board
DB-155 (1/98)	Certificate of Disability Benefits Self-Insurance	State of New York Workers' Compensation Board

DEDUCTIBLES:

Owner shall not be responsible for purchasing and maintaining any property insurance to protect the interests of CONTRACTOR, Subcontractors, or others in the work to the extent of any deductible amounts that are identified in the Supplementary Conditions. The risk of loss within such identified deductible amount will be borne by CONTRACTOR, Subcontractors, or others suffering any such loss, and if any of them wishes property insurance coverage within the limits of such amount, each may purchase and maintain it at the purchaser's own expense.

The Owner as fiduciary shall have the power to adjust and settle a loss with insurers unless one of the parties in interest shall object in writing within five days after occurrence of loss to the Owner's exercise of this power.

00012.02 GUARANTEE

The CONTRACTOR guarantees all the work and equipment furnished under the contract against any defects in workmanship or materials for a period of one (1) year following the date of final acceptance of the work by the owner. Under this guarantee, the CONTRACTOR agrees to make good without delay, at his own expense, any failure of any such parts due to faulty materials, construction, or installation, or to the failure of any such equipment to successfully perform all the work put upon it within the limits of the specifications and further shall make good any damage.

The CONTRACTOR also agrees that the CONTRACTOR's bond provided for in the following paragraph shall fully cover all guarantees contained in this section. Items replaced or rebuilt shall carry a one (1) year guarantee from the date of acceptance of the replacement or repairs.

00012.03 PAYMENT & PERFORMANCE BONDS:

The CONTRACTOR shall within ten (10) days after the receipt of the "NOTICE OF AWARD" furnish the owner with a performance bond and a payment bond in penal sums equal to the amount of the contract price, as security for the faithful performance by the CONTRACTOR of all the undertakings, covenants, terms, conditions, agreements, and obligations under the contract documents, and upon the prompt payment by the CONTRACTOR to all subcontractors, persons or entities supplying labor and materials in the prosecution of the work provided by the contract documents. CONTRACTOR shall furnish such other Bonds as are specifically required by the contract documents, if any.

Such bonds shall be in the form prescribed by the contract documents, except as provided otherwise by applicable law or regulation, and shall be executed by the CONTRACTOR and such sureties as are licensed to transact such business in the state of New York and named on the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies," as published in Circular Number 570 (amended) by the Financial Management Service, Surety Bonds Branch, U.S. Department of Treasury ("Surety Companies Accepted on Federal Bonds"). All Bonds signed by an agent must be accompanied by a certified copy of such agent's authority to act. All Bonds shall remain in effect for at least until one year following the later of final acceptance of the work by the owner or the date when final payment becomes due, except as provided otherwise by law or regulation. The expense of these bonds shall be borne by the CONTRACTOR.

If at any time a surety of any bond is declared bankrupt, becomes insolvent, or loses its right to do business in the State of New York or is removed from the list of Surety Companies Accepted on Federal Bonds, the CONTRACTOR shall within ten (10) days after notice from the owner to do so, substitute an acceptable bond (or bonds), in such form and sum and signed by such other surety or sureties as may be satisfactory to the owner. The premiums on such bond shall be paid by the CONTRACTOR. No further payments shall be deemed due nor shall be made until the new surety or sureties shall have furnished an acceptable bond to the owner.

00013 - AWARD OF CONTRACT

00013.01. AWARD OF CONTRACT

The award of the Contract will be made to the most responsive, responsible Bidder, who, in the opinion of the CITY, is qualified to perform the Work required and is responsible and reliable.

The award shall be made by the person or body authorized by law to make such awards. Formation of legally binding obligations between the CITY and Bidder (Award) shall occur upon the mailing of written notice of the Award to the successful Bidder.

It is the intention of the CITY that the Work will be awarded within 45 calendar days after the opening of Bids to the lowest responsible Bidder or combination of lowest responsible Bidders whose Bids conform to the requirements of the Bidding Contract Documents. Bids may not be withdrawn, altered or revoked during this 45-day period. Even after the expiration of such 45-day period, the CITY may accept a Bid and Award the Work to any Bidder whose Bid has not been unequivocally withdrawn or revoked prior to the mailing of written notice of the Award to the successful Bidder. For purposes of the preceding sentence, withdrawal or revocation of a Bid shall not occur until the CITY receives an unequivocal statement to that effect.

The right is reserved to reject any Bid or all Bids and to waive any informality in any Bid received.

00013.02. ESTIMATED QUANTITIES

By submitting this bid, bidders agree that he or she is satisfied with and will at no time dispute the estimated quantities stated in the bid as a proper means of comparing the bids.

00013.03 METHOD OF AWARD

This bid is comprised of a base contract. The CITY intends to award the contract based on the base bid.

The bidder must submit a bid for the base contract.

PROVISIONS

NYS BIDDING

SECTION 00014

00014.01 HOURS, WAGES & SUPPLEMENTS (From NYS Labor Law, Article 8, Section220)

No laborer, workman or mechanic in the employ of the contractor, subcontractor, or other person doing or contracting to do the whole or part of the work contemplated by this contract shall be permitted or required to work more than eight (8) hours in any one calendar day or more than five (5) days in any one week except in the cases of extraordinary emergency, including fire, flood or danger to life or property.

Each laborer, workman or mechanic employed by the contractor, subcontractor, or other person about or upon the work under this contract shall be paid no less than the prevailing rate of wages and shall be provided the supplements not less than the prevailing supplements as determined by the fiscal officer pursuant to Article 8 of the Labor Law. The prevailing rate schedule as determined by the fiscal officer follows this section and is a part of this contract. Any person employed at the site of the work in an occupation not listed in the following prevailing rate schedule shall be paid not less than the minimum rate per hour and shall be provided not less than the supplements designated by the fiscal officer.

Article 8, Section 220 of the Labor Law as amended provides, among other things, that it shall be the duty of the fiscal officer to make a determination of the schedule of wages to be paid to all laborers, workmen and mechanics employed on public works projects including supplements for welfare, pension, vacation and other benefits. These supplements may include hospital, surgical or medical insurance or benefits; life insurance or death benefits; accidental death or dismemberment insurance; pension or retirement benefits; vacation benefits. When the amount of supplements provided by the employer is less than the total amount of supplements shown on the wage schedule, the difference shall be paid in cash to employees. NYS Labor Law, Article 8, Section 220 of the Labor Law also provides that the supplements to be provided to laborers, workmen and mechanics upon public work "shall be in accordance with the prevailing practices in the locality...." The amount for supplement listed on the prevailing rate schedule does not necessarily include all types of prevailing supplements in the locality and a future determination of the fiscal officer may require the contractor to provide additional supplements.

The contractor shall provide statutory benefits for disability pensions, workmen's compensation, unemployment insurance and social security.

The contractor and every subcontractor shall post in a prominent and accessible place on the site of the project, a legible statement of all wage rates and supplements as specified in this contract to be paid or provided as the case may be for the various classes of mechanics, workmen, or laborers employed on the work.

If this contract is in excess of Twenty-Five Thousand Dollars (\$25,000), the contractor and every subcontractor who maintains no regular place of business in New York State shall keep on the site of the work original payrolls or transcripts thereof subscribed and affirmed by him as true under the

penalty of perjury showing the hours and days worked by each workman, laborer, or mechanic, the occupation at which he worked, the hourly wage rate paid and the supplements paid or provided, on the site of the project.

All other contractors or subcontractors shall produce within five days on the site of the work and upon formal order of the fiscal officer or designated representative such original payrolls or transcripts thereof subscribed and affirmed by him as true under the penalty of perjury, as may be deemed necessary to adequately enforce the provisions of Article 8.

All contractors and subcontractors shall be required to keep the following records on the site of the work:

- (a) Record of hours worked by each workman, laborer, and mechanic on each day.
- (b) Records of days worked by each workman, laborer and mechanic.
- (c) Schedule of occupation or occupations at which each workman, laborer, and mechanic on the project is employed during each work day and week.
- (d) Schedule of hourly wage rates paid to each workman, laborer, and mechanic for each occupation.

The contractor shall post at conspicuous points on the site of the project, a schedule showing all determined minimum wage rates and all authorized deductions, if any, from unpaid wages actually earned.

00014.02 WORKER PREVAILING WAGE NOTIFICATION REQUIREMENTS (From NYS Labor Law, Article 8, Section 220, Subdivision 3-a) (Effective February 24, 2008)

Prevailing wage rate law, Labor Law '220, paragraph a of subdivision 3-a. requires:

- (a) Contractors and subcontractors to provide written notice to all laborers, workers or mechanics of the prevailing wage rate for their particular job classification on each pay stub. In the event that the required information will not be on the pay stub, an accompanying sheet or attachment must be used.
- (b) Contractors and subcontractors to post a notice at the beginning of the performance of every public work contract on each job site that includes the telephone number and address for the NYS Department of Labor and a statement informing laborers, workers or mechanics of their right to contact the Department of Labor if he/she is not receiving the proper prevailing rate of wages and/or supplements for his/her particular job classification. NYSDOL contact information follows:

NYS Department of Labor 207 Genesee Street - Room 603B Utica, NY 13501 315-793-2314

NYS Department of Labor 333 E. Washington Street – Room 419 Syracuse, NY 13202 315-428-4056

00014.03 CERTIFIED PAYROLLS REQUIRED BEFORE PAYMENT (From NYS Labor Law, Article 8, Section 220, Subdivision 3(d)(iv).)

Certified payrolls shall be provided to the owner by the contractor and all subcontractors that cover the period for which an application for payment is made, before the owner shall make a payment to the contractor for work performed on the contract.

OR

00014.04 DISCRIMINATION PROHIBITED (From NYS Labor Law, Article 8, Section 220-E)

The contractor agrees, in accordance with the applicable provisions of the Labor Law, of the State of New York:

- (a) That in the hiring of employees for the performance of work under this contract or any subcontract hereunder, no contractor, subcontractor, nor any person acting on behalf of such contractor or subcontractor, shall by reason of race, creed, color, disability, sex or national origin discriminate against any citizen of the state of New York who is qualified and available to perform the work to which the employment relates;
- (b) That no contractor, subcontractor, nor any person on his behalf shall, in any manner, discriminate against or intimidate any employee hired for the performance of work under this contract on account of race, creed, color, disability, sex or national origin;
- (c) That there may be deducted from the amount payable to the contractor by the state or municipality under this contract a penalty of fifty dollars (\$50.00) for each person for each calendar day during which such person was discriminated against or intimidated in violation of the provisions of the contract;
- (d) That this contract may be cancelled or terminated by the state or municipality, and all moneys due or to become due hereunder may be forfeited, for a second or any subsequent violation of the terms or conditions of this section of the contract; and
- (e) The aforesaid provisions of this section covering every contract for or on behalf of the state or a municipality for the manufacture, sale or distribution of materials, equipment or supplies shall be limited to operations performed within the territorial limits of the State of New York

00014.05 DUST HAZARDS (From NYS LABOR LAW, Article 8, Section 222-A)

- (a) If, in the construction of the work covered by the contract, a harmful dust hazard is created for which appliances or methods for the elimination of dust have been approved by, the Board of Standards and Appeals, such appliances or methods shall be installed and maintained and effectively operated by the contractor at his expense.
- (b) The contract shall be void and of no effect unless the contractor complies with the provisions of this subdivision of the Contract and NYS Labor Law, Article 8, Section 222-A.

00014.06 REFUSAL TO TESTIFY OR TO SIGN WAIVER OF IMMUNITY OR TO ANSWER RELEVANT QUESTIONS (From NYS General Municipal Law, Article 5-A, Section 103-A & NYS Finance Law, Article 9, Section 139-A)

Upon the refusal of a person, when called before a grand jury, head of a state department, temporary state commission or other state agency, the organized crime task force in the department of law, head of a city department, or other city agency, which is empowered to compel the attendance of a witness and examine them under oath, to testify in an investigation concerning any transaction or contract had with the state, any political subdivision thereof, a public authority or with any public department, agency or official of the state or of any political subdivision thereof or of any public authority, to sign a waiver of immunity against subsequent criminal prosecution or to answer any relevant question concerning such transaction or contract.

- (a) Such person, and any firm, partnership or corporation of which he is a member, partner, director or officer shall be disqualified from thereafter selling to or submitting bids to or receiving awards from or entering into any contracts with any municipal corporation or fire district, or any public department, agency or official thereof, for goods, work or services for a period of five (5) years after such refusal and;
- (b) Any and all contracts made with any municipal corporation or any public department, agency or official thereof on or after the first day of July, 1959, or with any fire district or any agency or official thereof on or after the first day of September, 1960, by such person, and by any firm, partnership, or corporation of which he is a member, partner, director or officer may be canceled or terminated by the municipal corporation or fire district without incurring any penalty or damages on account of such cancellation or termination, but any monies owing by the municipal corporation or fire district for goods delivered or work done prior to the cancellation or termination shall be paid.

00014.07 NON-COLLUSION CERTIFICATION (From General Municipal Law, Article 5-A, Section 103-D

Each bidder shall complete the Non-Collusive Bidding Certification attached to the Bid Form.

00014.08 WORKMEN'S COMPENSATION (From General Municipal Law, Section 108)

It is stipulated that the contractor and his subcontractors shall at all times during the life of this contract provide adequate Workmen's Compensation at their own cost and expense for their employees engaged in the work. This contract shall be void and of no effect unless the said contractor and his subcontractors shall secure compensation for the benefit of, and keep insure during the life of said contract, such employees in compliance with the provisions of the NYS Workmen's Compensation Law.

00014.09 LIEN LAW

The attention of the contractor is specifically called to the provisions of the NYS Lien Law of the State of New York, wherein funds received by a contractor for a public improvement are declared to constitute trust funds in the hands of such contractor to be applied first to the payment of certain claims.

00014.10 SALES AND USE TAX EXEMPTIONS

The owner is an exempt organization described in subdivision (a) of Section 1116 of the Tax Law of the State of New York. Accordingly, the following transactions, if occurring under this contract, are exempt from the sales and compensating use taxes of the State of New York and of cities and counties thereof, and no sales and compensating use taxes relative to these exempt transactions shall be included in bids:

- (a) The sale of materials, equipment and supplies to the owner;
- (b) The sale to the contractor or his subcontractors of materials, equipment, and supplies for use in erecting any structure or building included in the project or in adding to, altering or improving any real property included in the project, provided that such materials, equipment & supplies are to become an integral component part of such structure, building or real property (i.e. incorporated in the project).
- (c) The sale to the contractor or his subcontracts of materials equipment and supplies to be re-sold to the owner other than those described in (b) above.

This project is to be bid, the contract drawn and payments made in such manner that the owner shall have the full advantage of all available exemptions from sales and compensating use taxes.

The contractor, his subcontractors and his material men shall complete New York Sales Tax Form ST120.1 (Contractor Exempt Purchase Certificate) and shall furnish such certificate to all persons, firms or corporations from whom they purchase materials, equipment and supplies which may be tax exempt as provided above. The Contractor and his subcontractors shall maintain and keep for a period of six (6) years after the date of final payment for the sale, or, if a claim for sales or compensating use tax is pending or threatened at the end of such six year period, until such claim is finally determined and settled, records which in the judgment of the New York State Department of Taxation and Finance adequately show all such tax exempt materials, equipment and supplies purchased by each.

SECTION 00015 AFFIRMATIVE ACTION

00015.01 - City of Oneida Affirmative Action Policy

The contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, age, sex, political affiliation, physical handicap, or national origin, and that the contractor will comply with all provisions of Executive Order 11246.

SECTION 00016

CERTIFIED PAYROLL FORMS DISPENSATION FOR HOURS SUB-CONTRACTOR'S AFFIDAVIT PREVAILING WAGE & SUPPLEMENTS

Department of Labor Bureau of Public Work

WEEKLY PAYROLL

For Contractor's Optional Use. The use of this form meets payroll notification requirements; as stated on the Payroll Records Notification.

NAME OF CONTRACTOR	SL	JBCONTR	ACTOR 🗖		ADDF	RESS																
FEIN	FOR WEE	K ENDING			PRO	JECT	AND) LO	CATI	ON					PR	OJECT	OR CO	ONTRA	CTOR NO.			
(1) NAME, ADDRESS, AND			(3)	ST		4) DAY	AND D	DATE			(5)	(6) RATE	(7) GROSS			DE	(a) EDUCTIO	NS		(9) NET WAGES		
LAST 4 DIGITS OF SOCIAL SECURITY NUL OF EMPLOYEE	MBER	NO. OF WITH- HOLDINGS	WORK CLASSIFICATION	or OT	НО	JRS WC	DRKED	EACH	DAY		TOTAL HOURS	OF PAY	AMOUNT EARNED	FICA	WITH- HOLDING Tax				TOTAL DEDUCTIONS	PAID FOR WEEK		
				s									\$0.00						DEDOCTIONS	\$0.00		
				0																		
				s									\$0.00							\$0.00		
				0	_																	
				s	_								\$0.00							\$0.00		
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				o	_	$\left \right $	_															
				s	+	$\left \right $	_						\$0.00							\$0.00		

THIS CERTIFICATION MUST BE COMPLETED ON EACH WEEKLY PAYROLL FORM USED BY THE CONTRACTOR OR SUBCONTRACTOR

Date		(b) \
(Name of signatory party)	(Title)	
do hereby state:		
(1) That I pay or supervise the payment of the persons e	employed by	
		(c)
(Contractor or Subcontractor	or)	
, that during the payroll perio	d commencing on the	
day of, 20 , and ending the all persons employed on said project have been paid the fu rebates have been or will be made either directly or indire	III weekly wages earned, that no	
	from the full	
(Contractor or Subcontractor		
weeklywages earned by any person and that no deduction indirectly from the full wages earned by any person, other defined in Articles 8 and 9 and described below:		
(2) That any payrolls submitted for the above period a	are correct and complete; that the	
wage rates for laborers, workers, or mechanics contain applicable wage rates contained in any wage determinatio		
the classifications set forth therein for each laborer, worke he/she performed.		
•	RE	MARKS
(3) That any apprentices employed in the above perio apprenticeship program registered with a State apprentices of Apprenticeship and Training, United States Departmen agency exists in a State, are registered with the Bureau of A States Department of Labor.	ship agency recognized by the Bureau ht of Labor, or if no such recognized	
(4) That:		
(a) WHERE FRINGE BENEFITS ARE PAID TO APPR	SIG	NATUR
\Box - In addition to the basic hourly wage rates paid to	o each laborer, worker or mechanic listed	

in the above referenced payroll, payments of fringe benefits as listed in the contract have been or will be made to appropriate programs for the benefit of such employees, except as noted in Section 4(c).

WHERE FRINGE BENEFITS ARE PAID IN CASH

Each laborer, worker, or mechanic listed in the above-referenced payroll has been paid, as indicated on the payroll, an amount not less than the sum of the applicable basic hourly wage rate plus the amount of the required fringe benefits as listed in the contract, except as noted in Section 4(c) below.

EXCEPTIONS

EXCEPTION (CRAFT)	EXPLANATION						
REMARKS:							
SIGNATURE							
THE WILLFUL FALSIFICATION OF ANY OF THE ABOVE STATEMENTS N	AY SUBJECT THE CONTRACTOR OR SUBCONTRACTOR						
TO CIVIL OR CRIMINAL PROSECUTION. SEE ARTICLES 8 AND 9.							



STATE OF NEW YORK DEPARTMENT OF LABOR BUREAU OF PUBLIC WORK THE GOV. W. AVERELL HARRIMAN STATE OFFICE BUILDING CAMPUS ALBANY, N.Y. 12240

FOR OFFICIAL USE ONLY

Control No:

APPLICATION FOR DISPENSATION FOR HOURS

Applicant must COMPLETEBOTH PAGES.Phone: (518) 457-5589Fax: (518) 485-1870A representative of the Department of Jurisdiction (contracting agency) must COMPLETE CERTIFICATION AT BOTTOM.

APPLICANT:	NAME AND ADDRESS	\$		FEDERALEMPLOYERID	ENTIFICATION NUMBER
				TELEPHONE NO:	
Prevailing Rate Case / (found on wage schedule)	PRC #		COUNT	Y:	
Project Description:					
	TION: (City, town, intersect	tion, street or route, etc.))		
NATURE OF PROJE	CT: (Check one)				
	2. ADDITION TO EXISTING STRUC			6.OTHER RECONSTR REPAIR OR ALTER 7. DEMOLITION	UCTION, MAINTENANCE ATION
REASON FOR REQU	ESTING DISPENSAT				
DISPENSATION RE	QUIRED: (Complete st	tatement below)	THIS	MUST BE SIGNED	
Application is made for a	period beginning	an	nd ending	(D.4.75)	o permit
operations	hours per day,	. ,	week.	(DATE)	
(Date) (S	Signature of Contractor or Author	rized Representative)	(F	PRINT NAME AND TITLE)	
This Section to be Ce	rtified by an Officer of t	the Department of J	urisdiction	THIS MUST B	E SIGNED
	T THE ABOVE DESCRIBED PUBL LT IN SERIOUS DISADVANTAG		NIMPORTANTNAT	URE AND THAT A DELAY	IN CARRYING IT TO
(DEPARTMENT OF .	URISDICTION)			(AUTHORIZED SIGNATURE)	
(STREET AD	DRESS)		(PRINT NAME AND TITLE)	DATE
(TOWN, CITY, ST PW-30 (03-07)	TATE) (ZIP CODE)	TI	ELEPHONE NO.: ()	

COMPLETE AND RETURN

LIST THE JOB CLASSIFICATIONS FOR WHICH THIS DISPENSATION IS REQUESTED AND THE NUMBER OF EMPLOYEES IN EACH CLASSIFICATION.

JOB CLASSIFICATION (occupations)	Number to be Employed
•	
When this application is complete, have an officer of the department of jurisdiction compl section and return it to this office. No worker, laborer, or mechanic may be employed in e any one day nor 5 days in any one calendar week until you receive a notice of determinati	excess of 8 hours in

Subcontractor's Certification of Receiving Schedule(s) of Wages and supplements in Compliance with the New York State Labor Law, Section 220-a.

I,	, as	of
·	(Title or Position)	-
	(Subcontractor), a subcontractor of	
(Company Name)		
(Prime) on PRC No.	, am duly authorized to make this affidavit on behalf of this	
subcontractor, and being duly sworn, d	lepose and say that:	
In compliance with the provisions of Section 2015	ection 220-a of the Labor Law, do hereby state verify receipt from	
Prime of the original schedule(s) of wa	ges and supplements for this project applicable for the period from	
July 1, 20 through June 30, 20		

Furthermore, by these present, I do hereby verify that I have reviewed said schedule(s), and agree for and on behalf of Subcontractor to pay the applicable prevailing wage and to pay or provide the supplements specified therein.

VERIFICATION:	_	Signa	ture
STATE OF NEW YORK COUNTY OF)) SS.:		
On theday of	, 20, before me pe	rsonally came	

to me known and who, being by me duly sworn, did depose and say that he/she is authorized to execute the foregoing instrument on behalf of the Prime, has read the foregoing, knows the contents thereof, knows same is true, and he/she has signed his/her name hereto.

Notary Public

Prevailing Wage and Supplements

The Contractor shall ensure that workers are paid the appropriate wages and supplemental (fringe) benefits. Throughout the contract, the Contractor shall be responsible for obtaining and paying workers in accordance with periodic wage rate schedule updates from the NYS Department of Labor (NYSDOL). Wage rate amendments and supplements are available on the NYSDOL web site at https://doi.ny.gov/public-work-and-prevailing-wage. All changes or clarification of labor classification(s) and applicability of prevailing wage rates shall be obtained in writing from the Office of the Director, NYSDOL Bureau of Public Work. The NYSDOL prevailing wage rate schedule for this contract has been determined and is available online. The prevailing wage rate schedule may be accessed by visiting the NYSDOL website using the link above, navigating to the prevailing wage section, and entering the Prevailing Rate Case No. (PRC#) 2024004086.

FORMS

BIDDING

SECTIONS 00020 - 00024

BIDDER' S CHECK LIST

Section 00020, Bid Sheet - Completed
Section 00021, Bid Form - Completed
Section 00022, Non-Collusive Bidding Certification - Completed
Section 00023, Bid Security 5% [cash, certified check, bid bond] - Attached
Section 00024, Statement of Surety's Intent - Completed

SECTION 00020 BID SHEET

MAPLE DRIVE SANITARY SEWER REPAIR

TO THE CITY OF ONEIDA, NEW YORK (CITY)

For: MAPLE DRIVE SANITARY SEWER REPAIR

Pursuant to and in compliance with the Owner's advertisement for bids and the Contract Documents relating hereto, the undersigned hereby offers to provide all plant, labor, materials, supplies, equipment, and other facilities and things necessary or proper for or incidental to, the <u>MAPLE DRIVE</u> <u>SANITARY SEWER REPAIR</u> work as required by, and in strict accordance with the applicable provisions of all Contract Documents, including changes thereto, and all of the addenda issued by the CITY and sent to the undersigned by certified or registered mail or by facsimile transmission or delivered to the bidder prior to the date of opening of bids, whether received by the undersigned or not, for the total sum of:

TOTAL BID

	Dollars and	Cents
	[Price in Words]	
(\$)	
	[Price in figures]	

<u>CITY OF ONEIDA, NEW YORK</u> <u>00021 - BID FORM</u>

TO THE COMMON COUNCIL:

The undersigned declares that ______ is/are the only person(s) interested in this bid; that it is made without any connection with any person making another bid for the same contract; that the bid is in all respects fair, and without collusion or fraud; and that no member of the Common Council or other officer of the City of Oneida or any person in the employ of said City is directly or indirectly interested in this bid, or in the supplies or works to which it relates or in any portion of the profits thereof.

The undersigned also declares that ______has/have carefully examined the specifications therein referred to, which are on file in the office of the City Engineer and will provide all necessary machinery, tools, apparatus, and other means for construction and also do all the work and furnish all the materials called for by the City Engineer for the sums stated on the bid form(s) at Section 00020.

And ______ shall commence work within 14 days (CONTRACTOR)

after signing the contract, and will progress therewith to its completion within 14 calendar days, in accordance with the terms of the contract.

Accompanying this bid is cash, a certified check or bid bond for: \$_______ five percent (5%) of the bid price for the Project which shall become the property of the City of Oneida, if in case this proposal shall be accepted by said City through its Common Council, the undersigned shall fail to execute a contract with a performance bond to said City according to the requirements of the Information for Bidders; otherwise the said check is to be returned to the undersigned as stated in the Information for Bidders.

[Name of Individual, Partnership, Company, Corporation]

[Signature]

[Printed Name]

[Title]

P.O. Address:	
Telephone #	
FAX #	
Federal Tax ID	
00022 - NON-COLLUSIVE BIDDING CERTIFICATION (See General Municipal Law Section 103-d)

By submission of this bid, the Bidder and each person signing on behalf of the Bidder, certify under penalty of perjury that to the best of knowledge and belief:

- 1. The prices in this bid, have been arrived at independently without collusion, consultation, communication or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor;
- 2. Unless otherwise required by law, the prices which have been quoted in the bid have not been knowingly disclosed by the Bidder and will not knowingly be disclosed by the Bidder prior to opening, directly or indirectly, to any other Bidder or to any competitor; and;
- 3. No attempt has been made or will be made by the Bidder to induce any other person, partnership or corporation to submit a bid for the purpose of restricting competition.

The foregoing statement is affirmed as true under penalty of perjury.

NAME:

TITLE:_____

DATE:

FOR THE BIDDER: ______ Signature

(Corporate Seal, if any) If no seal write-"No Seal" across this place and sign)

(This Form Must Be Completed Prior To The Submission Of The Bid)

00023 - BID SECURITY

(5% of BID Amount)

(Attach Here)

00024 - STATEMENT OF SURETY'S INTENT

To: City of Oneida Common Council	
	(CITY)
We have reviewed the Proposal of:	
	(CONTRACTOR)
	(Address)
For:	
(Projec	t)
Proposal for which will be received on:	
	(Date)
to him, it is our present intention to become su bond required by the contractor. Any arrangement for the bonds required by	of the contractor be accepted and the contract awarded urety on the performance bond and labor and material the contract is a matter between the contractor and or third parties if for any reason we do not execute the
We are duly authorized to do business in the	State of New York.
Attest:	
	Surety's Authorized Signature(s)
Attach Power of Attorney	
(Corporate Seal if any. If no seal, write, "No Seal" across this place & sign).	

(This completed from must accompany the submission of the bid\proposal)

FORMS

CONTRACT

SECTIONS 00110 - 00131

<u>CITY OF ONEIDA, NEW YORK</u> <u>00110-AGREEMENT</u>

This AGREEMENT, made and entered into this day of ______, 2024 by and between <u>THE CITY OF</u> <u>ONEIDA, 109 North Main Street, Oneida, New York 13421</u> (hereinafter the "CITY"), and ______ (hereinafter the "CONTRACTOR").

WITNESSETH:

WHEREAS, CITY wishes to have certain work performed in and for CITY; and

WHEREAS, CONTRACTOR wishes to perform such work in return for the compensation noted herein.

NOW, THEREFORE, the parties hereto, in consideration of the mutual promises contained in this Agreement and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, agree as follows:

Article 1.

Under this Agreement, CONTRACTOR shall perform the sanitary sewer repair as described in the contract documents attached and incorporated hereof. In exchange for CONTRACTOR'S performance, CITY shall pay CONTRACTOR in accordance with the unit prices in the Bid Form.

Article 2.

In consideration of the payments to be made as hereinafter provided, and of the performance by the CITY of all of the matters and things to be performed by the CITY and herein provided; the CONTRACTOR agrees, at his own sole cost and expense, to perform all the labor and services and to furnish all the labor and materials, plant and equipment necessary to complete, and to complete in good substantial workmanlike and approved manner, the work described under Article I hereof, within the time hereinafter specified and in accordance with the terms, conditions and provisions of this Agreement and with the instructions, orders and directions of the City Engineer made in accordance with this Agreement. CONTRACTOR shall commence work within 14 days after being notified to proceed by the City Engineer, and will progress therewith to its completion within 14 calendar days, in accordance with the terms of the Agreement.

Article 3.

CONTRACTOR shall direct and supervise the day-to-day activities of its employees. It is agreed that CONTRACTOR shall report to the City Engineer and the City Engineer shall be responsible for inspecting and approving the work performed. Because this Agreement is being entered into between CONTRACTOR and a municipality, the Agreement is subject to the New York State Prevailing Wage Law. CONTRACTOR agrees to comply with such requirements in all respects.

Article 4.

- [a] CONTRACTOR shall obtain, and maintain throughout the term of this Agreement, the insurance and bonds as set forth in the Contract Documents, naming CITY as an additional insured thereunder by endorsement on an unrestricted primary and non-contributory basis on all lines of liability coverage and shall provide proof of such coverage to CITY before commencing work. Such insurance coverage shall indemnify and save harmless the CITY from all suits, claims or demands on account of the injuries or damages to person or property arising out of the performance of the work called for in this contract. Failure to maintain insurance coverage as listed herein shall be a material breach of this Agreement and shall subject CONTRACTOR to liability for damages, indemnification, and all other legal remedies available to CITY. The failure of CITY to object to the content of any Endorsement or Certificate or the absence of same shall not be deemed a waiver of any or all rights held by CITY.
- [b] CONTRACTOR and his subcontractors shall maintain Worker's Compensation and Employers Liability insurance as required by the State of New York. CONTRACTOR shall pay any and all applicable premiums and deductibles.
- [c] Endorsements, certificates of insurance or copies policies and all required bonds shall be approved as to form and sufficiency by the City Attorney prior to work being commenced.

Article 5.

CONTRACTOR hereby agrees to accept full responsibility for conclusions it has rendered relative to the nature and probable difficulties of the work, due to underground composition or other factor by which actual conditions are not readily visible or ascertainable; CONTRACTOR represents it is not relying upon any representations, if any, of CITY, its agents, and employees, whatsoever in this regard. CONTRACTOR further acknowledges that it has conducted an adequate and careful inspection of the work site.

Article 6.

The following documents shall constitute integral parts of the Agreement: Advertisement; Information for Bidders; Conditions of the Contract; Award of Contract; New York State Bidding Provisions; Affirmative Action; New York State Department of Labor Requirements; Bid; Agreement and all interpretations of or addenda to the Contract Documents issued by the CITY or the City Engineer with the approval of the CITY (collectively known and referred to as the "Contract Documents").

The Table of Contents, Headings and Titles contained herein and in said documents are solely to facilitate reference to various provisions of the Contract Documents and in no way affect, limit or cast light on the interpretation of the provisions to which they refer.

Article 7.

If CONTRACTOR shall fail to comply with any of the terms, conditions, provisions, or stipulations of this Agreement, according to the true intent and meaning thereof, then CITY may make use of any of all remedies provided in the Contract Documents and shall have the right and power to proceed in accordance with the provisions thereof.

Article 8.

The following alterations and addenda have been made and included in this Contract before it was signed by the parties hereto:

NONE

Article 9.

CONTRACTOR agrees:

- [a] He hereby voluntarily and irrevocable submits himself to the jurisdiction and venue of any court of competent jurisdiction over the subject matter of this Contract located within the State of New York in which any litigation is brought based on or arising out of this Contract.
- [b] This Agreement shall be construed and enforced in accordance with the laws of the State of New York, and any litigation brought by CONTRACTOR based on or arising out of this Agreement shall be brought only in the Supreme Court of Madison County, in the State of New York.
- [c] Any legal process or notice connected with any litigation may be served on the CONTRACTOR by United States registered mail, postage prepaid, addressed to CONTRACTOR at the address stated in this Agreement or at the address stated in this Agreement for the furnishing of notices to the CONTRACTOR, and that service in such manner shall constitute good and valid service of process upon CONTRACTOR.
- [d] The CONTRACTOR hereby waives any defense which might be available to it in any such litigation based on or alleging lack of jurisdiction or venue, or, if process is served in the manner provided in subparagraph [a] immediately above, invalid service of process, and that CONTRACTOR will duly enter its appearance in any such action.
- [e] To the maximum extent permitted by law, CONTRACTOR agrees to indemnify and hold harmless CITY, its officers, employees, consultants, contractors and agents from and against any and all losses, damages, costs and expenses including attorneys' fees, liabilities, fines and penalties resulting from and all claims, proceedings or actions of whatsoever kind or nature whether or not finally adjudicated including any settlement thereof, arising out of or in connection with or on account of any performance of this Agreement and this liability shall survive the termination or expiration of the Agreement.

Article 10.

All notices, objections and other communications hereunder shall be delivered in writing and shall be deemed to have been duly given if delivered or mailed by certified mail, return receipt requested, postage prepaid, as follows:

If to CITY:Oneida City Mayor
109 North Main Street
Oneida, New York 13421With copy to:Oneida City Clerk
109 North Main Street

Oneida, New York 13421

If to CONTRACTOR:

With copy to:

(Representative of Contractor)

IN WITNESS WHEREOF, the parties to this Agreement have hereunto set their hands and seals and have executed this Agreement, the day and year first above written.

SEAL

BY: John Monaghan, ACTING CITY MANAGER CITY OF ONEIDA, NEW YORK

SEAL

BY: (Representative of Contractor)

<u>00111 - NOTARY</u>

(Acknowledgment of Officer or Owner)

STATE OF NEW YORK : COUNTY OF MADISON : ss.:

On this _____ day of _____, 2024 before me personally came _____, Acting City Manager of the City of Oneida, to me personally known and known to me to be the same person who executed the foregoing Contract as such official, and that said he duly acknowledged to me that he executed the same pursuant to the power and authority vested in him by THE CITY OF ONEIDA COMMON COUNCIL and that said signature is so affixed pursuant to authority vested in him.

Notary Public

(Acknowledgment of Contractor, if a Corporation)

STATE OF NEW YORK : COUNTY OF MADISON : ss.:

On this ______ day of _____, 2024 before me personally came and appeared

to me known, who, being by me duly

sworn, did depose and say that he resides at _____

that he is the ______ of _____ the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation, that one of the seals affixed to said instrument is such seal; that it was so affixed by order of the directors of said corporation; and that he signed his name thereto by like order.

Notary Public

00111 - NOTARY

(Acknowledgment of Contractor, If a Partnership)

STATE OF NEW YORK : COUNTY OF MADISON : ss.:

On this _____ day of _____, 2024 before me personally came and appeared _____,

Notary Public

(Acknowledgment of Contractor, If an Individual)

STATE OF NEW YORK : COUNTY OF MADISON : ss.:

On this _____ day of _____, 2024 before me personally came and appeared ______,

Owner of ______, to me known and known to me to be the person described in and who executed the foregoing instrument and acknowledged that he executed the same.

Notary Public

00120

CERTIFICATE

OF

LIABILITY

INSURANCE

CERTIFICATE

OF

WORKERS' COMPENSATION

INSURANCE

(ATTACH HERE)

(Note ACORD Form no longer is acceptable proof if insurance)

CERTIFICATE

OF

NEW YORK STATE

DISABILITY BENEFITS

INSURANCE

PERFORMANCE BOND

LABOR & MATERIAL BOND

CLOSE-OUT FORMS

SECTION 00140

CONTRACT

FINAL PAYMENT AFFIDAVIT THAT PROJECT IS FREE FROM LIENS & CLAIMS¹¹

To: Comptroller City of Oneida 109 N. Main Street Oneida, New York 13421

Re:

(Project Title\Contract)

In making application for final payment

(Prime Contractor) certifies that the subject contract is free of any liens and that no right to any claim exists by any subcontractor or supplier of materials incorporated into the works.

(Prime Contractor) further certified that the premiums shall

be paid in order to keep the labor and material bond in force for a period of one year after date of final acceptance by the City of Oneida IAW Contract provision 00012.03, Contract Security.

(Signature of Owner or Officer)

(Typed Name of Owner or Officer)

(Name of contractor)

¹ This form shall be completed and shall accompany the request for final payment.

00140.02

FINAL PAYMENT AFFIDAVIT PREVAILING WAGE RATES (Section 220a, NYS Labor Law)

To: Comptroller City of Oneida 109 N. Main Street Oneida, New York 13421

Re:

(Project Title\Contract)

In making application for final payment for the subject contract\project

_____ certifies that it has received every verified

(Prime Contractor)

further

(Prime Contractor)

statement required to be obtained from its subcontractors pertaining to the subject contract\project and that a copy of same has been filed with the City of Oneida.

SECTION II

In making application for final payment ______

(Prime Contractor) certifies that all wages have been paid and that all hourly supplements have been paid or provided to its workers...

SECTION III MARK THE APPROPRIATE CERTIFICATION BELOW

In making application for final payment

certifies that for each subcontractor whose employees have not been finally paid, a listing has been attached to this affidavit which shows the name of each such subcontractor and that the names of that subcontractors' employee(s) and the amounts of wages and/or supplement which remain unpaid.

OR

certifies that it has no knowledge of amounts owing to any worker by any its subcontractors.

SECTION IV

In the event that it is determined by the NYS Commissioner of Labor that any worker of any subcontractor employed on the subject contract has been paid or provided pursuant to the scheduled

of prevailing wage and/or supplements, _____

(Prime Contractor) shall be responsible for payment of such wages and supplements pursuant to Section 223 of the Labor Law.

(Signature of Owner of Officer)

(Typed Name of Owner of Officer)

(Name of contractor)

OF THE CONTRACT

CONDITIONS

SECTION 00200

00200.01 Permits, Laws and Regulations

The CONTRACTOR shall acquire, at its own expense, all necessary permits from the County, State, City, or other public authorities; shall pay all fees and charges incidental to the due and lawful execution of the work done under this contract.

CONTRACTOR shall keep itself fully informed of all laws, ordinances and regulations in any manner affecting those engaged or employed in the work, or the materials used in the work, or in any way affecting the conduct of the work, and of all orders decrees and instructions of bodies or tribunals having any jurisdiction or authority over the same. If any discrepancy or inconsistency should be discovered in the Contract Documents in relation to any such law, ordinance regulations, order, decree, or instruction, he shall forthwith report the same in writing to the City Engineer.

CONTRACTOR shall at all times observe and comply with and shall cause all its agents and employees to observe and comply with all such existing and future laws, ordinances, regulations, orders, decrees, and instructions.

00200.02 Definitions

Engineer: Shall mean the City Engineer or his representative acting for the Engineer within the scope of the particular duties assigned to them.

00200.03 Ground Available to Contractor

The CONTRACTOR shall confine its operations to such portions of the property of the CITY, and to the rights of way or easements acquired for the work as shown. Private property adjacent to the work shall not be entered upon or used by the CONTRACTOR for any purpose whatsoever without the written consent of the owner thereof.

All work in connection with the contract within or bordering on private or public property shall be conducted in such manner as will cause the minimum inconvenience and disturbance to it. No excavated materials or supplies of any kind shall be stored on private or public premises without the owner's consent, and all walks and driveways shall be kept open to uninterrupted passage.

The CONTRACTOR shall at its own cost and expense whenever so required, erect and maintain fences along the roadways, and around the grounds occupied by him, and of such character as will be sufficient for the protection of the adjoining property and all persons lawfully using the same.

00200.04 Travel not to be Obstructed

The CONTRACTOR shall not allow travel upon any street, park, roadway, or alley to be hindered or inconvenienced needlessly, nor shall the same be wholly obstructed without the written permission of the owner thereof. Upon receipt of such permission the CONTRACTOR shall cause plain and properly worded signs announcing such fact to be placed, with proper lighted barricades, at the nearest cross streets, upon each side of such obstructed portion, where travel can pass around the same in the shortest and easiest way.

The driveways to and from all fire department buildings and those required by all manufacturing plants, industrial establishments, and other business concerns for the proper continuance of their commerce shall be kept open and maintained in passable condition at all times unless modified by agreement between the CONTRACTOR and the property owner. The CONTRACTOR shall give reasonable notice to the owners of all private ways before interfering with them.

The CONTRACTOR shall give reasonable written notice to concerned police, bus, fire, ambulance, and school bus departments before initiating any activity which will restrict public travel or access to private property.

00200.05 Access to Work

The City, Engineer, inspectors, agents, other employees and representatives of state and federal regulating agencies, shall for any purpose, and any other parties who may enter into contracts with the CITY for doing work within the territory covered by this contract shall, for all purposes which may be required by their contracts, have access to the work and the premises used by the CONTRACTOR, and the CONTRACTOR shall provide safe and proper facilities therefore. The CONTRACTOR shall, whenever so requested, give Engineer access to the proper invoices, bill of lading, etc., and shall provide scales and assistance for weighing or other assistance for measuring and testing any of the materials.

00200.06 Time Provisions

00200.06.01 Commencement and Completion of Work

The contractor shall commence the work within thirty (14) days following the date specified in the Notice to Proceed and fully complete the work within the time specified in the bid. The contractor shall notify the engineer in writing, of his intention to enter upon the site of the work at least five (5) days in advance of such entrance.

Time is of the essence of this Contract with respect to the Work to be performed. The Contractor shall proceed expeditiously with the Work with adequate forces. The Contractor hereby confirms that the times set forth for completion of the Work are reasonable periods of time for performing and completing the Work.

Conditions of the Contract

00200.06.02 Rate of Progress

The rate of progress shall be as nearly uniform as practicable and shall be such that all work under the contract shall be completed within the time specified, or before such later date to which the time of completion may have been extended by the CITY.

00200.06.03 Extension of Time

If the CONTRACTOR is obstructed or delayed in the prosecution or completion of the work by the neglect, delay of default of any other contractors for adjoining or contiguous work, or by any damage that may happen thereto, by the unusual action of the elements, or by the abandonment of the work by the employees in a general strike, or by any delay on the part of the City or Engineer doing work or furnishing material, the CONTRACTOR shall have no claim for damages against the CITY or Engineer for any such cause or delay, but they may in such case be entitled to an extension of time specified herein for the completion of the work, provided, however, that claim for such extension of time is made by the CONTRACTOR in writing within ten (10) calendar days from the time when such alleged cause for delay shall occur.

An application for an extension of time must set forth in detail the source and the nature of each alleged cause of delay in the completion of the work, the date upon which each such cause of delay began and ended and delay attributable to each of such causes. The CONTRACTOR shall, however, be entitled to an extension of time for such causes only for the number of calendar days of delay which the CITY may determine to be solely to such causes, and then only if the CONTRACTOR shall have strictly complied with all of the requirements of this section.

The CONTRACTOR shall not be entitled to receive a separate extension of time for each one of several causes of delay operating concurrently, but, if at all, only for the actual period of delay in completion of the work as determined by the CITY irrespective of the number of causes contributing to produce such delay. If one of several causes of delay operating concurrently results from any act, fault, or omission of the CONTRACTOR or of its subcontractor or material men, and would of itself (irrespective of the concurrent causes) have delayed the work, no extension of time will be allowed for the period of delay resulting from such act, fault, or omission.

00200.07 Agreed Upon Damages

If the work required by this contract is not completed within the time specified because of fault by the CONTRACTOR, the CONTRACTOR shall be liable for agreed upon damages of two hundred fifty dollars (\$250.00) per day for each calendar day beyond the required completion date, such sum being not in the nature of a penalty, but representative of the reasonable damages sustained by the CITY, and as part of the consideration of the contract. Such agreed upon damages may be deducted by the CITY from the amount due the CONTRACTOR before the balance is payable to the CONTRACTOR.

00200.08 No Waiver of Rights

Neither the inspection by the Engineer, CITY, or any of its employees, nor any order of the CITY, for payment of money, nor any order, measurement or certificate by the Engineer, nor payment for, nor acceptance of the whole or any part by the Engineer or CITY, nor any extension of time, nor any possession taken by the CITY or employees shall operate as a waiver of any provision of this contract, or of any power herein reserved, nor shall any waiver of any breach of this contract be held to be a waiver of any other subsequent breach. All remedies in this contract shall be taken and constructed as cumulative; that is, in addition to each and every other remedy, wherein provided, and the CITY shall have any and all equitable and legal remedies which it would in any case have.

00200.09 Safety and Protection

The CONTRACTOR shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the work. The CONTRACTOR shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to all employees on the work and any other persons who may be affected thereby.

The CONTRACTOR shall comply with all applicable laws, ordinances, rules, regulations, and orders of public bodies having jurisdiction for the safety of persons or property or to protect them from damage, injury or loss, including without limitation, the Department of Labor, Safety & Health regulations for construction promulgated under the Occupational Safety and Health Act of 1970 (PL 91-596) and under section 107 of the contract work hours and Safety Standards Act (PL 91-54). The CONTRACTOR shall erect and maintain as required by the conditions and the progress of the work, all necessary safeguards for safety and protection, and in addition they shall comply with all applicable recommendations of the Manual of Accident Prevention in Construction of the Associated General Contractor of America, Inc.

The CONTRACTOR shall designate a responsible member of its organization at the site whose duty shall be the prevention of accidents. This person shall be the CONTRACTORs superintendent unless otherwise designated.

The CONTRACTOR shall keep upon the site, at each location where work is in progress, a completely equipped first-aid kit and shall provide ready access thereto at all times when people are employed on the work.

The CONTRACTOR shall be solely responsible for the safety, efficiency and adequacy of its plant, equipment, and methods.

00200.10 Care and Protection of the Work

From the commencement until the acceptance of the Work, the Contractor shall be solely responsible for the care of the Work covered by the Contract and for the materials, supplies and equipment delivered at the Site intended to be used in the Work; and all injury or damage to the same from whatever cause, shall be made good at his expense. The Contractor shall provide suitable means of protection for and shall protect all materials intended to be used in the Work, all Work in progress, and all completed Work. The Contractor shall take all necessary precautions to prevent injury or damage to the Work by flood, fire, freezing or from inclemencies of the weather.

The Contractor shall neither load nor permit any part of a structure to be loaded with weights that will endanger the structure, and shall not subject any part of the Work to stresses or pressures that will endanger it.

In the event that the Owner must take occupancy and the Contractor is behind schedule, the provisions of the article still apply.

00200.11 Maintaining Flow of Sewers, Water Lines and Drains

The CONTRACTOR shall, at its expense, provide for and maintain the flow of all sewers, drains, house inlet connections, and water courses which may be met with during the progress of the Work. The CONTRACTOR shall not allow the contents of any sewer, drain, or house inlet connection to flow into trenches, sewers, or other structures to be constructed under the Contract, and shall at its expense, immediately remove from the vicinity of the Work and cart away to a proper disposal site all offensive matter. Surface runoff and groundwater shall <u>not</u> be discharged to the existing sanitary sewer system under any condition or circumstance.

The Contractor shall notify the Owner at least one day in advance if any disruption of service is anticipated or required.

In the case of accidental damage to a water or sewer line, gas main or electrical conduit, the repairs of such break shall have priority over all other operations. The parties whose services are affected by the break shall be notified at once and all assistance given to supply emergency water, gas, or electricity where necessary by temporary lines, tank truck, or other means. The CONTRACTOR shall have the obligation at its expense to assure that all water, gas, electric and sewer connections serving private or public property shall be promptly and correctly restored to the utility company's specifications.

00200.12 Changes

00200.12.01 CITY's Changes In The Work

- (a) The CITY at any time without notice to any surety may make changes in the work of the CONTRACTOR by making alterations therein, by making additions thereto, or by omitting work therefrom, and no such action shall invalidate the contract, relieve or release the CONTRACTOR from any guarantee under the contract affect the terms or validity of any bond, relieve or release any surety, or constitute grounds for any claim by the CONTRACTOR for damages or loss of anticipated profits. All work required by such alterations, additions, or omissions shall be executed under the terms of the contract.
- (b) Other than in an emergency endangering life or property or pursuant to a field order, the CONTRACTOR shall not make any change in the work nor furnish any labor, equipment, materials, supplies or other services in connection with any change except pursuant to and after receipt of a written authorization from the CITY in the form of a change order, modification, or proceed order. The CONTRACTOR shall not be entitled to any increase in the contract price or extension of the contract time, and no claim therefor shall be valid unless such written authorization has been so issued to the CONTRACTOR.
- (c) The Engineer may authorize minor changes in the work which do not alter the character, quantity or cost of the work as a whole. These changes may be accompanied by a field order. The CONTRACTOR shall carry out such field orders promptly and without any adjustment of the contract price or contract time.

00200.12.02 Changes in Price Resulting From Changes in the Work

Any adjustment in the contract price resulting from changes in the work ordered by the CITY as in this section provided shall be determined as follows:

- [a] By such applicable unit prices, if any, as are set forth in the contract; or;
- [b] If no such unit prices are so set forth, then by unit or by a lump sum mutually agreed upon by the CITY and the CONTRACTOR; such unit prices or lump sum being arrived at by estimates prepared as outlined in [c] below:
- [c] If no such unit prices are so set forth and if the parties cannot agree upon unit prices or a lump sum, then determination shall be made as the sum of the following:

- Actual net cost of labor and material shall be defined as the amount paid for the following items, to the extent determined reasonable and necessary,

Conditions of the Contract

- Cost of materials delivered to the job site for incorporation into the contract work,

- Wages paid to workmen and foremen and wage supplements,

- Premiums or taxes paid by the CONTRACTOR for workmen's compensations insurance, unemployment insurance, FICA tax and other payroll taxes as required by law, net of actual and anticipated refunds and rebates,

- Sales and use taxes paid as required by law,

- Allowances for use of construction equipment (exclusive of hand tools and minor equipment), as approved for use by the Engineer.

Rental rates approved for payment shall be in accordance with those published in that issue of the Associated Equipment Distributors (AED) Rental Guide, current at the time the work is done. In the event that rental rates for equipment used in the performance of extra work are not listed in the AED Rental Guide, rental rates will be approved for payment which are consistent with those prevailing in the construction industry in the area of the work. Monthly, weekly, or daily rates shall apply, pro-rated, to the actual time the equipment is in use; the classification of monthly, weekly or daily rate to be used shall be determined by the length of time the piece of equipment under consideration was in use on the total project under contract plus the time used in the performance of the extra work plus additional subsequent time used on the total project under contract. Gasoline, oil and grease required for operation and maintenance will be paid for at the actual cost. When, in the opinion of the CONTRACTOR, and as approved by the engineer suitable equipment is not available on the site, the moving of said equipment will be paid for at actual cost.

The CONTRACTOR will be required to submit evidence satisfactory to the engineer to substantiate each and every item included above.

The amounts allowed for overhead and profit shall not exceed the applicable percentages established as follows:

If the work is done directly by the CONTRACTOR, overhead in an amount of ten percent (10%) may be added to all costs above and to this amount there may be added ten percent (10%) for profit.

If the work is done by a subcontractor, subcontractor's overhead in the amount of five percent (5%) may be added to all costs above and to the cost of labor and materials plus overhead there may be added ten percent (10%) for the subcontractor's profit. To this amount there may be added ten percent (10%) for the CONTRACTOR's combined overhead and profit.

The percentages for overhead and profit may vary according to the nature, extent and complexity of the work involved, but in no case shall exceed the percentages set forth above. No percentages for overhead and profit will be allowed on the premium portion of overtime pay or payroll taxes.

Overhead is defined as all costs or expense not included above including administration superintendents, insurance not outlined above, material used in temporary structures, additional premiums placed upon the labor and performance bonds of the contractor and small hand tools.

00200.12.03 Proceed Order

If the CITY and the CONTRACTOR cannot agree upon an equitable adjustment of the contract price prior to performance of the change in the work, a proceed order shall be issued authorizing the change, and the CONTRACTOR shall proceed with the work thereof by the most economical methods. Upon completion of the change in the work and a determination of the adjustment in the contract price, a change order shall be issued.

00200.13 Estimated Quantities

The CONTRACTOR agrees that the estimated quantities stated in the bid are only for the purpose of comparing on a uniform basis, the bids offered for the work under the contract, and the CONTRACTOR further agrees that it is satisfied with and will at no time dispute the said estimated quantities as a means of comparing the bids aforesaid; that it will make no claim of any nature against the CITY or Engineer because of a difference between quantities of the various classes of work actually furnished and the said estimated quantities, even though the estimated quantities prove grossly different from the actual, and that the Engineer may without alteration or modification of the contract increase, or omit the amount of any class or portion of the work as may be deemed necessary.

00200.14 Temporary Electric Light and Power

It is the obligation and responsibility of the CONTRACTOR to provide and maintain temporary facilities for furnishing light and power necessary for operations under the Contract, and to make all necessary arrangements therefor, including all required connections, ordering the meter, and paying all fees and inspection charges.

The CONTRACTOR shall make the temporary light and power facilities available to any and all subcontractors, for their use in connection with their contracts, and may charge each subcontractor for such service an amount not to exceed a fraction of the cost of the services, as billed by the utility, proportional to the value of the Project. Removal of temporary facilities shall be by the CONTRACTOR. The installation and meters shall remain until need for same has ceased or until completion of the Contract.

Conditions of the Contract

00200.15 Prices

The prices herein agreed to for the performance of the work shown and as specified, shall be inclusive, that is, the said price shall include not only the doing of the work but also the furnishing of all labor tools, and materials whether the same are required directly or indirectly, unless otherwise specified.

Where work is to be measured for payment by units of length, area, volume or weight as stated in the bid, only the net amount of work actually performed, as it shall appear in the finished work and as measured only inside of the payment lines described in the contract drawings, or as ordered, shall be paid for, local customs to the contrary notwithstanding. For estimating quantities of Earthwork and Sub grade the end area method shall be used between the curblines, except at intersections where the surface area times irregular shaped sections times a depth of 12 inches shall be used to determine the volume. Where the computation of other areas by geometric methods would be comparatively laborious, it is stipulated and agreed that the planimeter shall be considered an instrument of precision adapted to the measurement of such areas.

Where a lump sum price is bid for an item in the bid, the lump sum price shall be for the work complete as described in the pay item and shall include the cost of all equipment, materials, and labor, specified or implied, incidental to work complete and ready for service and in accordance with the contract documents.

00200.16 Schedule of Values

Three (3) copies of the Application and Certificate for Payment shall be submitted to the City Engineer for his approval. Subcontractors shall submit invoices in three (3) copies describing the material furnished and/or work performed to the CONTRACTOR for approval. The CITY will make payments based on these estimates, retaining five (5) percent. Any payment made for materials and equipment delivered will not relieve the CONTRACTOR of any responsibility for furnishing all the necessary equipment and materials as needed for prosecution of the work in the same manner as if such payment had not been made.

Application for Payment shall be on AIA Document G702, Application and Certificate for Payment which requires notarization.

The schedule of values shall be on AIA Document G703, Continuation Sheet.

APPLICATION AND CERTIFICATE FOR PAYMENT

(Line 1 +2).....

AIA DOCUMENT G702

CONTRACTOR:

CONTRACT FOR:

1.

5.

	PAGE 1 OF 2 PAGES		
JEFFREY A. ROWE			
best of the Contractor's knowl	edae		

CONTRACTOR'S APPLICATION FOR PAYMENT

Application is made for payment, as shown below, in accordance with the Contract. Continuation Sheet, AIA Document G703, is attached.

- 2. Net Change By Change Orders.....
- CONTRACT SUM TO DATE 3.

RETAINAGE:

ORIGINAL CONTRACT SUM

TOTAL COMPLETED & STORED TO DATE..... 4. (Column G on G703)

The undersigned Contractor certifies that to the best of the Contractor's knowledge, information and belief, the Work covered by this Application for Payment has been completed in accordance with the Contract Documents, that all amounts have been paid by the Contractor for Work for which previous Certificates for Payment were issued and payments received from the Owner, and that current payment shown herein is now due. CONTRACTOR: A notary public or other officer completing this certificate verifies only the identity of the individual who signed t and not the truthfulness, accuracy, or validity of that document.

Ву:		Date:
State of:	County of:	
Subscribed and sworn before me on this	by:	proved to me

on the basis of satisfactory evidence to be the person who appeared before me.

In accordance with the Contract Documents, based on on-site observations

and the data comprising the above application, the Construction Manager

certifies that to the best of his knowledge, information and belief the Work

has progressed as indicated, the quality of the Work is in accordance with the Contract Documents, and the Contractor is entitled to payment of the

% of Stored Material

a. % of Completed Work

(Column F on G703)

(Columns D & E on G703)

Total Retainage (Line 5a + 5b or Total in Column 1 of G703)

- TOTAL EARNED LESS RETAINAGE..... 6. (Line 4 less Line 5 Total)
- 7. LESS PREVIOUS CERTIFICATES FOR PAYMENT (Line 6 from prior Certificate)
- 8. CURRENT PAYMENT DUE
- **BALANCE TO FINISH, INCLUDING RETAINAGE** 9. (Line 3 less Line 6)

CHANGE ORDER SUMMARY	ADDITIONS	DEDUCTIONS
Total changes approved in	\$	\$
previous months by Owner		
Total Approved this Month	\$	\$
TOTALS	\$	\$
NET CHANGES by Change Order	\$	-

Notary: CERTIFICATE FOR PAYMENT



AMOUNT CERTIFIED...... \$

(Attach explanation if amount certified differs from the amount applied for. Initial all figures on this Application and on the Continuation Sheet that changed to conform to the amount certified.).

CITY ENGINEER:

By:_

PROJECT:

MAPLE DRIVE SANITARY SEWER REPAIR

VIA CITY ENGINEER:

Date:

My Commissioning Expires:

This certificate is not negotiable. The AMOUNT CERTIFIED is payable only to the Contractor named herein. Issuance, payment and acceptance of payment are without prejudice to any rights of the Owner or Contractor under this Contract.

CONTINUATION SHEET - Schedule of Values AIA Document G702, APPLICATION AND CERTIFICATE FOR PAYMENT,

containing Contractor's signed Certification is attached.

In tabulations below, amounts are stated to the nearest dollar.

Use column 1 on Contracts where variable retainage for line items may apply

Use column	1 on Contracts where variable retainage for								
A	В	С	D	E	F	G		Н	Ι
ITEM	DESCRIPTION OF WORK	SCHEDULED	WORK COMPL		MATERIALS	TOTAL	%	BALANCE	RETAINAGE
NO.		VALUE	FROM PREVIOUS	THIS PERIOD	PRESENTLY	COMPLETED	(G/C)	TO FINISH	
			APPLICATION		STORED	AND STORED		(C-G)	-5%
			(D+E)		(NOT IN D OR E)	TO DATE (D+E+F)			
1		¢	¢	¢	D OR E)	(D+E+F)		φ.	
1		\$	\$	\$	\$	\$		\$	\$
2		\$	\$	\$	\$	\$		\$	\$
3		\$	\$	\$	\$	\$		\$	\$
4		\$	\$	\$	\$	\$		\$	\$
5		\$	\$	\$	\$	\$		\$	\$
6		\$	\$	\$	\$	\$		\$	\$
7		\$	\$	\$	\$	\$		\$	\$
8		\$	\$	\$	\$	\$		\$	\$
9		\$	\$	\$	\$	\$		\$	\$
10		\$	\$	\$	\$	\$		\$	\$
11		\$	\$	\$	\$	\$		\$	\$
12		\$	\$	\$	\$	\$		\$	\$
13		\$	\$	\$	\$	\$		\$	\$
14		\$	\$	\$	\$	\$		\$	\$
15		\$	\$	\$	\$	\$		\$	\$
17		\$	\$	\$	\$	\$		\$	\$
18		\$	\$	\$	\$	\$		\$	\$
20		\$	\$	\$	\$	\$		\$	\$
SUB TOTA	ALS:	\$	\$	\$	\$	\$		\$	\$
				Change Orde	ers	•	•		
1		\$	\$	\$	\$	\$		\$	\$
2		\$	\$	\$	\$	\$		\$	\$
3		\$	÷ \$	÷ \$	\$	\$		\$	\$
-	ORDER TOTALS:	\$	\$	\$	\$	\$		↔ \$	\$
	GRAND TOTALS	¢	\$	÷	\$	¢			¥
	GRAND IUIALS	Φ	Φ	Φ	Φ	\$		\$	\$

AIA DOCUMENT G703

PAGE - 2 OF 2

APPLICATION DATE: PERIOD TO:

00200.17 CITY's Right to Withhold Payments

The CITY may withhold from the CONTRACTOR so much of any approved payments due as may in the judgment of the CITY be necessary:

- (a) To assure the payment of just claims then due and unpaid of any persons supplying labor or materials for the work.
- (b) To protect the CITY from loss due to defective work not remedied, or;
- (c) To protect the CITY from loss due to injury to persons or damage to the work or property of other contractors, subcontractors, or others caused by the act of negligence of CONTRACTOR, or any of its subcontractors.

The CITY shall have the right as agent for the CONTRACTOR to apply any such amounts so withheld in such manner as the CITY may deem proper to satisfy such claims or to secure such protection. Such application of such money shall be deemed payments for the account of the CONTRACTOR.

00200.18 Final Inspection

The Engineer shall make a final inspection of all work included in the contract as soon as possible after notification by the CONTRACTOR that the work is completed and ready for inspection. The Engineer will advise the CONTRACTOR, in writing, as to the particular items to be corrected before the work can be given final approval.

00200.19 Final Payment

Upon completion of the final inspection and the correction of any work required for final approval of the work; and the submission by the CONTRACTOR of acceptable affidavits, certificates of waivers (see affidavit forms provided following Conditions of the Contract) showing that no right to lien exists in connection with the work; and submission of acceptable evidence by the CONTRACTOR as to the satisfaction of all claims, the CITY shall pay to the CONTRACTOR the balance of the contract price of the work as indicated by the final estimate prepared by the Engineer, including the retained percentage. All prior estimates and payments including those relating to extra work, shall be subject to correction by this estimate and payment, which throughout this contract is called "final payment".

00200.20 Guarantee

All work performed under the contract shall be guaranteed for one year. The guarantee period shall start from the date of final approval.

Upon completion of the one year guarantee period, the CONTRACTOR at its own expense shall furnish such labor and material as the Engineer may require to facilitate the one year inspection.

00200.21 Acceptance of Final Payment Constitutes Released

The acceptance by the CONTRACTOR of the final payment shall be and shall operate as a release to the CITY of all claims and of all liability to the CONTRACTOR for all things done or furnished in connection with this work, and for every act and neglect of the CITY and others relating to or arising out of this work, excepting the CONTRACTOR's claim for interest upon the final payment if this payment be improperly delayed. No payment, however, final or otherwise, shall operate to release the CONTRACTOR or its sureties from any obligation under the contract or the performance bond.

00200.22 Breakdown of Lump Sum Items

The CONTRACTOR shall within three (3) weeks after award of the contract prepare and submit to the engineer for approval, a breakdown of all lump sum bid prices contained in his contract, with the total prices apportioned into component parts of the various types and categories of material and labor involved in each lump sum item. The approved breakdown will be used in the preparation of the current estimate as well as to determine any adjustment in the bid lump sum due to a required increase of work for that lump sum item.

00200.23 Old Materials

All materials removed from old construction and all materials or articles of value found in the excavation or on the site of the work shall be brought to the attention of the CITY or CITY's agent, and if he shall so order, shall be property of the CITY, and shall be carefully preserved for future use. If not claimed by the CITY, such material or articles shall be removed and disposed of by the CONTRACTOR at his own expense. The CITY will take possession of any asphalt concrete <u>millings</u> and will furnish vehicles to haul said material.

00200.24 CITY's Right to Accept Portions of Work

The CITY reserves the right to accept for service any portion of the work at any time during the contract period without prejudice to the CITY in enforcing any provisions of the contract.

00200.25 Disposal of Excavated Material

The CONTRACTOR will be required to dispose of all excavated material including but not limited to pavement, dirt, bricks, concrete, pipe, ties, rails, etc. Disposal shall be in accordance with the local laws, ordinances or rules of the governmental body having jurisdiction of the area where disposal is made.

GENERAL

SPECIFICATIONS

01000.01 Pre-Construction Meeting:

Prior to the start of construction by the successful bidder, a general information meeting shall be held with the City and the Contractor. The meeting shall cover the general features of the project and any special requirements.

01000.02 Samples, Tests and Cited Specifications:

All materials and products proposed to be used in construction shall be inspected, sampled and tested as required by the specifications.

The selection of bureaus, laboratories and agencies for the inspection and tests of supplies, materials and equipment shall be subject to the approval of the Engineer. Satisfactory documentary inspection and tests shall be furnished to the Engineer by the CONTRACTOR prior to the incorporation of the material in the work.

Unless otherwise directed, no materials shall be used until accepted by the City Engineer, and such material shall be used only so long as the quality remains equal to that of the accepted sample. This initial acceptance of a material shall in no way preclude further examination and testing of a material at any time the Engineer suspects that the material is no longer properly represented by the accepted sample. The acceptance at any time of any materials shall not bar its further rejection if it is subsequently found to be defective in quality or uniformity.

Unless otherwise designated, when a reference is made in these specifications to a specification or test designation either to the ASTM, Federal specifications, or any other recognized non-proprietary national organization, it shall mean the specification or test method which is current on the date of advertisement for bids.

Any material which is rejected because of failure to meet the required tests or that has been damaged so as to cause rejection, shall be immediately removed from the site of the work.

Materials shall be so stored as to insure the preservation of their quality and fitness for the work. Stored materials, even though accepted before storage shall be inspected prior to their use in the work and shall meet the requirements of the contract at the time of their use.

The expense of all required inspection, sampling, testing and qualification of plants and manufacturers or fabricators, shall be borne by the CONTRACTOR and shall be included in the unit price or lump sum price for that item.

01000.03 Intent of Specifications:

The intent of the specifications is to provide for the work herein outlined to be complete in every detail for the purpose designated and the CONTRACTOR hereby agrees to furnish everything necessary for such construction, not withstanding any omission in the drawings or specifications.

The CONTRACTOR shall make requisite excavations or embankments; do all clearing, ditching, diking, pumping, bailing, and draining, lay all underdrains; place all sheeting, shoring, bracing, and supporting; to do all fencing, lighting, watching; make all provisions necessary to maintain and protect buildings, water pipes, gas pipes, sewers, drains, conduits, culverts, fences, walls, poles, trees, earth banks and slopes, sidewalks, railways and other structures, except as hereinafter provided; repair all damage done to such structures, banks or slopes, provide all bridges, fences, or other means for maintaining travel on intercepted streets and on streets in which the work is carried on; construct all foundations, all concrete, brick, stone and timber work; set in place all iron and steel work and reinforcements; drive all piles; lay all pipe sewers and drains; make all connections with or between, and alterations of existing sewers and structures; refill all trenches and excavations and resurface and repave all streets; construct all buildings and structures; furnish and install all equipment; clean away all rubbish and surplus materials; and to furnish all materials (except those herein specially mentioned as furnished by the owner), tools, implements, and labor required to build and put in complete working order the work contemplated in this contract.

The mention of any specific duty or liability of the CONTRACTOR in any part of the specifications shall not be construed as a limitation or restriction upon any general liability or duty imposed upon the CONTRACTOR by the specifications, said reference to any specific duty or liability being merely for purposes of explanation.

It shall perform and complete the work in the manner best calculated to promote rapid construction consistent with safety of life and property and in strict accordance with contract documents.

All materials and workmanship shall be in every respect in accordance with the best modern practice. Whenever the contract drawings, specifications, or directions of the engineer admit of a reasonable doubt about what is permissible, and when they fail to state the quality of any work, the interpretation which required the best quality of work is to be followed.

01000.04 Work in Storms:

The mixing and placing of concrete, the laying of sewer line, and\or the placement of asphalt shall be stopped during rainstorms, if required by the Engineer. All freshly placed concrete work shall be protected by canvas or other suitable covering in such manner as to prevent water from coming in contact with it. Sufficient covering shall be provided and kept ready at hand for this purpose.

01000.07 - Accident Prevention:

Precautions shall be exercised at all times for the protection of persons and property. The safety provisions of applicable laws, building and construction codes shall be observed. Machinery, equipment, and all hazards shall be guarded or eliminated in accordance with safety provisions of the manual of accident prevention in construction, published by Associated General Contractors of America, to the extent that such provisions are not in contravention of applicable law.

The CONTRACTOR shall keep upon the site, at each location where work is in progress, a completely equipped first aid kit and shall provide ready access thereto at all times when men are employed on the work.

01000.08 Cleaning Structures and Site:

As the work progresses, all rubbish, refuse, unused materials and tools shall be removed from the site, and the site left in a neat and orderly condition. Whenever the clearing of rubbish from, or the repairing of streets, roadways, passageways or areas, or the repairing of fences or damages is neglected, the engineer will give notice to that effect to the CONTRACTOR, and if such rubbish is not removed or if said repairing is not done within five days thereafter, or if the CONTRACTOR does not at once take the necessary precaution to insure the safety of travel, the CITY may employ other parties to do such work and the expense thereby incurred shall be deducted from any moneys due or that may become due to the Contractor.

On completion of the contract, all pipe lines, buildings and other structures shall be left clean and free from obstructions. All rubbish, refuse, unused materials, and CONTRACTOR 's equipment and tools shall be removed and the site shall be left in a neat and orderly condition for use. All equipment shall be cleaned and left in a bright clean and polished and new appearing condition.
01000.09 Surface and Subsurface Conditions

01000.09.01 Protection of Existing Structures

It shall be the sole responsibility of the CONTRACTOR and at its expense to protect adjacent and other property or premises from damage of any kind during the progress of the Work and shall erect and maintain guards around its Work in such a way as to afford protection to the public. The CONTRACTOR shall be held responsible for improper, illegal, or negligent conduct of itself, and its subcontractors, employees and agents in and about said Work or in the execution of the Work covered by this Contract.

It shall be the sole responsibility of the CONTRACTOR, and at its expense to sustain in their places and permanently protect from direct or indirect injury any and all pipelines, subways, pavements, sidewalks, curbs, railways, buildings, trees, poles, wells, and other property in the vicinity of his Work, whether over- or underground, or which appear within the trench or excavations, and it shall assume all costs and expenses for direct or indirect damage which may be occasioned by injury to any of them.

The CONTRACTOR 's liability shall also include the damage or injury sustained by any structure whatsoever due to settlement of trenches or excavations or to settlement or lateral movement of the sides of such trenches or excavations, whether such movement occurs during or after excavation or backfilling of such trenches or excavations. The responsibility to so support and protect all such structures from damage or injury shall continue, without limitation, throughout the Contract period and during the period of guarantee.

The CONTRACTOR shall at all times have available onsite suitable and sufficient material and shall use the same as may be necessary or required for sustaining and supporting any and all such structures which are uncovered, undermined, weakened, endangered, threatened, or otherwise materially affected.

In case injury occurs to any portion of a pipeline or structure, or to the material surrounding or supporting the same, the CONTRACTOR shall immediately notify the Engineer, and, at the CONTRACTOR's expense, shall remove such injured Work and shall rebuild the pipeline or structure and shall replace the material surrounding and supporting the same, or shall furnish such material and perform such work of repairs or replacements as the Engineer may order. In the case of utilities, the CONTRACTOR shall immediately notify the utility company, and provide all assistance for the repair of the utility by the utility company unless authorized to undertake such repairs directly by the utility company. Any damage whatso- ever shall be promptly, completely, and satisfactorily repaired by the CONTRACTOR at its expense to the satisfaction of the Owner, or owner of the utility.

01000.09.02 Protection of Utilities

All utilities whose facilities may be affected by the Work of the Contract shall be notified by the CONTRACTOR at least 72 hours in advance of the start of any operations which might affect such facilities.

The removal, replacement, support, or other handling of private and public utilities coming within the lines of the Work shall be accomplished by the CONTRACTOR at its expense in accordance with arrangements satisfactory to the owner or operator of the utility involved. The CONTRACTOR, at its expense, shall remove, replace, or support all utilities as required.

The CONTRACTOR shall not permit nor cause any hindrance to or interference with any individual, municipal department, public service corporation, or other company or companies in protecting its or their mains, pipes, poles, posts, or other structures, nor in shifting, removing, or replacing the same. The CONTRACTOR shall allow said individual, department, company, or companies to take all such measures as they may deem prudent to protect their structures.

Where it is necessary to interrupt water, gas, or other public utility service to remove, realign, or change a subsurface structure, the Work shall proceed with expedience and shall be continuous after interruption of service until completion of the removal, realignment, or change and return of the utility service to its normal state.

01000.09.03 Replacement of Property

The CONTRACTOR shall replace all pavement, driveways, fences, shrubs, lawns, trees, and any other public or private property damaged as a result of the Work under this Contract. All such replacement shall be done in accordance with the applicable specifications and no separate or extra payment will be made unless specifically provided for in the Payment Items. In all cases said replacement shall be new and at least equal to the original conditions.

01000.10 Inspections of Work:

Inspection services, performed by the Engineer pursuant to this contract whether of material or work, and whether performed prior to, during, or after completion of construction, are performed solely for the purpose of determining general conformity of the work with the contract plans and specifications.

Nothing contained herein shall create, or be deemed to create: (1) Any duty upon the Engineer to supervise the construction procedures and safety procedures followed by any CONTRACTOR or subcontractor or their respective employees or by any other persons at the job site, or: (2) Any liability whatsoever by the Engineer to any employees or any contractor or to any other person.

01000.11 Noise Control:

All construction equipment presenting a potential noise nuisance shall be provided with noise muffling devices. In addition, work shall be restricted to normal working hours: (7 am-8 pm).

01000.12 - Dust Control:

The dust control shall be maintained by using calcium chloride as ordered by the Engineer. Calcium chloride shall be delivered in water proof paper bags of an approved type weighing approximately fifty (50) pounds and shall meet the requirements of the specifications for M-32 calcium chloride.

01000.13 Quality:

All equipment and materials furnished under the contract shall be manufactured within North America. All items of equipment and materials of like type, furnished under one contract shall be the product of one manufacturer, unless otherwise specified.

All materials furnished or incorporated in the work shall be new, unused, of the best quality, especially adapted for the service required and whenever the characteristics of any material are not particularly specified, such material shall be used as is customary in first class work of a nature for which the material is employed.

All materials and workmanship (if not otherwise designated by the specifications) shall be subject to inspection, examination and tests by the Engineer and other representatives of the CITY, at any and all places where such manufacture or construction are carried on.

If at any time before final acceptance of the entire work, the Engineer considers necessary or advisable an examination of any portion of the work already completed by removing or tearing out the same, the contractor shall, upon requires, furnish promptly all necessary facilities, labor, and materials.

If such work is found to be defective in any material respect, due to fault of the CONTRACTOR or any subcontractor, or of any of his subcontractors, or if any work shall be covered over without the approval or consent of the Engineer (whether or not defective), the CONTRACTOR shall be liable for the expenses of such examination and of satisfactory reconstruction.

If, however, such approval and consent shall have been given and such work is found to meet the requirements of the contract, the CONTRACTOR shall be recompensed for the expenses of such examination and reconstruction in the manner herein provided for the payment of costs of extra work.

Rejected work or material shall be removed from the site.

The selection of bureaus, laboratories, and agencies for the inspection and tests of supplies, materials, or equipment shall be subject to the approval of the Engineer. Satisfactory documentary evidence that the material has passed the required inspection and tests, must be furnished to the Engineer by the CONTRACTOR prior to the incorporation of the material in the work.

01000.14 Equivalent Products:

Whenever definite reference is made in these specifications, or on the plans, to any particular brand name for an item of equipment or material, it is to be understood that any equivalent product complying with the requirements of the plans and specifications, as determined by the Engineer, will be acceptable.

01000.15 Experience Clause:

All supplies and equipment shall be furnished by manufacturers who shall have at least ten (10) years' experience in the design, production, assembly, and field service of equipment of like type, size, and capacity. Where required by the Engineer, the Contractor shall supply a list of at least three successful installations.

It is the intent of these specifications to procure the best equipment and services which are available for the intended duty.

01000.16 Provisions Required By Law Deemed Inserted

Each and every provision 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 such provisions were included herein. 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.

SECTION 02220

EARTHWORK, TRENCHING, BACKFILLING AND COMPACTION

PART 1 GENERAL

1.1 SUMMARY

A. This Section includes excavation and backfilling including the loosening, removing, refilling, transporting, storage, disposal, and installation of all materials classified as necessary to be removed for the construction and completion of all work under the Contract, and as shown on the Contract Drawings, specified or directed.

1.2 REFERENCES

A. Materials and installation shall be in accordance with the latest revisions of the following codes, standards, and specifications.

1.3 DEFINITIONS

- A. Excavation (or Trenching)
 - 1. Grubbing, stripping, removing, storing and rehandling of all materials of every name and nature necessary to be removed for all purposes incidental to the construction and completion of all the work under construction.
 - 2. All sheeting, bracing and shoring, and the placing, driving, cutting off and removing of the same.
 - 3. All diking, ditching, fluming, cofferdamming, pumping, bailing, draining, well pointing, or otherwise disposing of water.
 - 4. The removing and disposing of all surplus materials from the excavations in the manner specified.
 - 5. The maintenance, accommodation and protection of travel and the temporary paving of highways, roads and driveways.
 - 6. The supporting and protecting of all tracks, rails, buildings, curbs, sidewalks, pavements, overhead wires, poles, trees, vines, shrubbery, pipes, sewers, conduits or other structures or property in the vicinity of the work, whether over- or underground or which appear within or adjacent to the excavations, and the restoration of the same in case of settlement or other injury.
 - 7. All temporary bridging and fencing and the removing of same.

- B. Earth
 - 1. All materials such as sand, gravel, clay, loam, ashes, cinders, pavements, muck, roots or pieces of timber, soft or disintegrated rock, not requiring blasting, barring, or wedging from their original beds, and specifically excluding all ledge or bedrock and individual boulders or masonry larger than one-half cubic yard in volume.
- C. Backfill
 - 1. The refilling of excavation and trenches to the line of filling indicated on the Contract Drawings or as directed using materials suitable for refilling of excavations and trenches; and the compacting of all materials used in filling or refilling by rolling, ramming, watering, puddling, etc., as may be required.
- D. Spoil
 - 1. Surplus excavated materials not required or not suitable for backfills or embankments.
- E. Limiting Subgrade
 - 1. The underside of the pipe barrel for pipelines
 - 2. The underside of footing lines for structures
- F. Excavation Below Subgrade
 - 1. Excavation below the limiting subgrades of structures or pipelines.
 - 2. Where materials encountered at the limiting subgrades are not suitable for proper support of structures or pipelines, the CONTRACTOR shall excavate to such new lines and grades as required.

PART 2 PRODUCTS

2.1 MATERIALS AND CONSTRUCTION

- A. Wood Sheeting and Bracing
 - 1. Shall be sound and straight; free from cracks, shakes and large or loose knots; and shall have dressed edges where directed.
 - 2. Shall conform to National Design Specifications for Stress Grade Lumber having a minimum fiber stress of 1200 pounds per square inch.
- B. Steel Sheeting and Bracing
 - 1. Shall be sound.

PART 3 EXECUTION

3.1 EXCAVATION

- E. The trench excavation shall be located as specified, and excavation shall be by open cut from the ground surface.
- F. Excavations shall be made to the elevations or subgrades specified and shall be only of sufficient size to allow suitable room for the proper construction of structures and appurtenances, including allowances for sheeting, dewatering, and other similar work necessary for completion of the Contract.
- G. The minimum width of trench excavation shall be 6 inches on each side of the pipe hub for 21-inch diameter pipe and smaller and 12 inches on each side of the pipe hub for 24-inch diameter pipe and larger.
- H. Open trenches shall be protected and barricaded as required.
- I. Bridging across open trenches shall be constructed and maintained where required.

3.2 SUBGRADE PREPARATION FOR PIPE

- E. Where pipe is to be laid on undisturbed bottom of excavated trench, mechanical excavation shall not extend lower than the finished subgrade elevation at any point.
- F. Where pipe is to be laid on special granular material the excavation below subgrade shall be to the depth specified or directed. The excavation below subgrade shall be refilled with special granular material as specified or directed, shall be deposited in layers not to exceed 6 inches and shall be thoroughly compacted prior to the preparation of pipe subgrade.
- G. The subgrade shall be prepared by shaping with hand tools to the contour of the pipe barrel to allow for uniform and continuous bearing and support on solid undisturbed ground or embedment for the entire length of the pipe.
- H. Pipe subgrade preparation shall be performed immediately prior to installing the pipe in the trench. Where bell holes are required they shall be made after the subgrade preparation is complete and shall be only of sufficient length to prevent any part of the bell from becoming in contact with the trench bottom and allowing space for joint assembly.

3.3 SUBSURFACE REINFORCEMENT

- E. Where an unstable subgrade is encountered and subject to the approval of the Engineer, select fill may be used for subgrade reinforcement if satisfactory results can be obtained thereby. Such material shall be applied in thin layers, each layer being entirely embedded in the subsoil by thorough tamping.
- F. All excess material shall be removed to compensate for the displacement by the select fill and the finished elevation shall not be above the specified subgrade.

3.4 UNAUTHORIZED EXCAVATION

- E. Whenever excavations are carried beyond or below the lines and grades as given or directed by the Engineer, all such excavated space shall be refilled with special granular materials, concrete or other materials as the Engineer may direct. All refilling of unauthorized excavations shall be at the CONTRACTOR's expense.
- F. All material which slides, falls or caves into the established limits of excavations due to any cause whatsoever, shall be removed and disposed of at the CONTRACTOR's expense and no extra compensation will be paid the CONTRACTOR for any materials ordered for refilling the void areas left by the slide, fall or cave-in.

3.5 REMOVAL OF WATER

- E. General
 - 1. The CONTRACTOR shall at all times provide and maintain proper and satisfactory means and devices for the removal of all water entering the excavations, and shall remove all such water as fast as it may collect, in such manner as shall not interfere with the prosecution of the work or the proper placing of pipes, structures, or other work.
 - 2. Water shall not be allowed to rise over or come in contact with any masonry, concrete or mortar, until at least 24 hours after placement, and no stream of water shall be allowed to flow over such work until such time as the Engineer may permit.
 - 3. Water pumped or drained from excavations, or any sewers, drains or water courses encountered in the work, shall be disposed of in a suitable manner without injury to adjacent property, the work under construction, or to pavements, roads, drives, and water courses. No water shall be discharged to sanitary sewers. Sanitary sewage shall be pumped to sanitary sewers or shall be disposed of by an approved method.
 - 4. Any damage caused by or resulting from dewatering operations shall be the sole responsibility of the CONTRACTOR.
- F. Work Included
 - 1. The construction and removal of cofferdams, sheeting and bracing, and the furnishing of materials and labor necessary therefor.
 - 2. The excavation and maintenance of ditches and sluiceways.
 - 3. The furnishing and operation of pumps, well points, and appliances needed to maintain thorough drainage of the work in a satisfactory manner.

3.6 STORAGE OF MATERIALS

- E. All excavated materials shall be stored in locations so as not to endanger the work, and so that easy access may be had at all times to all parts of the excavation. Stored materials shall be kept neatly piled and trimmed, so as to cause as little inconvenience as possible to public travel or to adjoining property holders.
- F. Where conditions do not permit storage of materials adjacent to the trench, the material excavated from a length as may be required, shall be removed by the CONTRACTOR, at his cost and expense, as soon as excavated. The material subsequently excavated shall be used to refill the trench where the pipe had been built, provided it be of suitable character. The excess material shall be removed to locations selected and obtained by the CONTRACTOR.
 - 1. The CONTRACTOR shall, at his cost and expense, bring back adequate amounts of satisfactory excavated materials as may be required to properly refill the trenches.
- G. If directed by the Engineer, the CONTRACTOR shall refill trenches with select fill or other suitable materials and excess excavated materials shall be disposed of as spoil.
- H. Special precautions must be taken to permit access at all times to fire hydrants, fire alarm boxes, police and fire department driveways, and other points where access may involve the safety and welfare of the general public.

3.7 DISPOSAL OF MATERIALS

- E. Spoil Material
 - 1. All spoil materials shall be disposed of as required by the local, state or federal regulations pertaining to the area.
 - 2. The surface of all spoil areas shall be graded and dressed and no unsightly mounds or heaps shall be left on completion of the work.

3.8 SHEETING AND BRACING

- E. Installation
 - 1. The CONTRACTOR shall furnish, place and maintain such sheeting, bracing and shoring as may be required to support the sides and ends of excavations in such manner as to prevent any movement which could, in any way, injure the pipe, structures, or other work; diminish the width necessary for construction; otherwise damage or delay the work of the Contract; endanger existing structures, pipes or pavements; or cause the excavation limits to exceed the right-of-way limits.
 - 2. In no case will bracing be permitted against pipes or structures in trenches or other excavations.

- 3. Where breast boards are used between soldier pile, the boards shall be back packed with soil to maintain support.
- 4. The CONTRACTOR shall be solely responsible for the adequacy of all sheeting and bracing.
- F. Removal
 - 1. In general, all sheeting and bracing, whether of steel, wood or other material, used to support the sides of trenches or other open excavations, shall be withdrawn as the trenches or other open excavations are being refilled. That portion of the sheeting extending below the top of a pipe or structural foundation shall not be withdrawn, unless otherwise directed, before more than 6 inches of earth is placed above the top of the pipe or structural foundation and before any bracing is removed. The voids left by the sheeting shall be carefully refilled with selected material and rammed tight with tools especially adapted for the purpose or otherwise as may be approved.
 - 2. The CONTRACTOR shall not remove sheeting and bracing until the work has attained the necessary strength to permit placing of backfill.
- G. Left in Place
 - 1. If, to serve any purpose of his own, the CONTRACTOR files a written request for permission to leave sheeting or bracing in the trench or excavation, the Engineer may grant such permission, in writing, on condition that the cost of such sheeting and bracing be assumed and paid by the CONTRACTOR.
 - 2. In case sheeting is left in place, it shall be cut off or driven down as directed so that no portion of the same shall remain within 12 inches of the street subgrade or finished ground surface.

3.9 PIPE EMBEDMENT

- E. All pipe shall be protected from lateral displacement and possible damage resulting from superimposed backfill loads, impact or unbalanced loading during backfilling operations by being adequately embedded in suitable pipe embedment material. To ensure adequate lateral and vertical stability of the installed pipe during pipe jointing and embedment operations, a sufficient amount of the pipe embedment material to hold the pipe in rigid alignment shall be uniformly deposited and thoroughly compacted on each side, and back of the bell, of each pipe as laid.
- F. Embedment materials placed above the centerline of the pipe to a depth of 12 inches above the top of the pipe barrel shall be deposited in such manner as to not damage the pipe. All embedment shall be thoroughly compacted to minimize settling of material and in a manner to not damage the pipe.

3.10 BACKFILLING

E. General

- 1. All excavations shall be backfilled to the original surface of the ground or to such other grades as may be shown, specified or directed.
- 2. Backfilling shall be done with suitable excavated materials which can be satisfactorily compacted during refilling of the excavation. In the event the excavated materials are not suitable, Special Backfill as specified or ordered by the Engineer shall be used for backfilling.
- 3. Backfilling around structures shall not be commenced before the structure has developed sufficient strength to withstand the loads applied. No backfill material shall be allowed to fall directly on a structure, until at least 12 inches of material has been hand-placed and compacted nor shall any material be pushed directly against a structure in backfilling.
- 4. The remaining portion of the pipe trench above the embedment shall be refilled with suitable materials compacted thoroughly.
 - a. Backfill shall be deposited in horizontal layers and at no greater thickness than can be completely and thoroughly compacted.
 - b. Any settlement occurring in the backfilled excavations shall be refilled and thoroughly compacted as it occurs.
- 5. Temporary pavement shall be placed as specified in the Section entitled "Restoration of Surfaces".
- F. Unsuitable Materials
 - 1. Stones, pieces of rock or pieces of pavement greater than 1 cubic foot in volume or greater than 1.5 feet in any single dimension shall not be used in any portion of the backfill.
 - 2. All stones, pieces of rock or pavement shall be distributed through the backfill and alternated with earth backfill in such a manner that all interstices between them shall be filled with earth.
 - 3. Frozen earth shall not be used for backfilling.
- G. Compaction and Density Control
 - 1. The compaction equipment shall be suitable for the material encountered.

- 2. When requested by the Engineer, to assure adequate compaction, in-place density test shall at the expense of the CONTRACTOR be made by an approved testing laboratory.
 - a. The compaction specified shall be the percent of maximum dry density.
 - b. The moisture-density relationship of the backfill material shall be determined by ASTM D698, Method D.
 - Compaction curves for the full range of materials used shall be developed.
- 3. The CONTRACTOR shall be responsible for all damage or injury done to pipes, structures, property or persons due to improper placing or compacting of backfill.

3.11 OTHER REQUIREMENTS

- E. Unfinished Work
 - 1. When, for any reason, the work is to be left unfinished, all trenches and excavations shall be filled and all roadways, sidewalks and watercourses left unobstructed with their surfaces in a safe and satisfactory condition. The surface of all roadways and sidewalks shall have a temporary pavement.
- F. Hauling Material on Streets
 - 1. When it is necessary to haul material over the streets or pavements, the CONTRACTOR shall provide suitable tight vehicles so as to prevent deposits on the streets or pavements. In all cases where any materials are dropped from the vehicles, the CONTRACTOR shall clean up the same as often as required to keep the crosswalks, streets and pavements clean and free from dirt, mud, stone and other hauled material.
- G. Dust Control
 - 1. It shall be the sole responsibility of the CONTRACTOR to control the dust created by any and all of his operations to such a degree that it will not endanger the safety and welfare of the general public.

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SECTION 02230

SELECT FILL

PART 1 GENERAL

1.1 WORK INCLUDED

A. Select fill materials shall be used in either embedment or special backfill as specified or as directed by the Engineer.

1.2 RELATED WORK SPECIFIED ELSEWHERE

- A. Earthwork, Trenching, Backfilling and Compaction
- B. Embedment
- C. Restoration of Surfaces

1.3 DEFINITIONS

- A. Embedment or Lining
 - 1. Any type granular material specified or directed placed below an imaginary line drawn one foot above the inside diameter of the pipe and within the trench limits.

B. Special Backfill

1. Pipelines

Any Select fill material specified or directed placed above an imaginary line drawn one foot above the inside diameter of the pipe and within the trench limits.

2. Structures

Any Select fill material specified or directed placed within the excavation limits, either in, under or adjacent to the structure.

- C. Special Granular Material
 - 1. Special granular material shall mean any of the granular materials listed below or other materials ordered by the Engineer.

1.4 SUBMITTALS

- A. The name and location of the source of the material.
- B. Samples and test reports of the material.

PART 2 PRODUCT

2.1 GRANULAR MATERIALS

- A. Type A
 - 1. Crushed Gravel

Thoroughly washed crushed, durable, sharp angled fragments of gravel free from coatings. Crushed particles shall be a minimum of 85% by weight of the particles with at least two fractured faces. The total area of each fractional face shall exceed 25% of the maximum cross-sectional area of the particle.

Crushed gravel shall have the following gradation by weight:

<u>% Passing</u>	Sieve
100%	1-1/2-inch
0-25%	3/4-inch
0-5%	1/2-inch

B. Type B

1. Crushed Stone

Thoroughly washed clean, sound, tough, hard crushed limestone or approved equal free from coatings. Gradation for crushed stone shall be the same as specified for Type A material.

C. Type C

1. Crushed Stone

Thoroughly washed, clean, sound, tough, hard, crushed limestone or approved equal free from coatings. It shall have a gradation by weight of 100% passing a one-inch square opening and 0 - 15% passing a 1/4-inch square opening.

D. Type D

1. Washed Sand

Washed coarse sand having the following gradation by weight:

<u>% Passing</u>	Sieve
100	3/8-inch
95 - 100	No. 4
80 - 100	No. 8
50 - 85	No. 16
25 - 60	No. 30
10 - 30	No. 50
2 - 10	No. 100

E. Type E

1. Run-of-Bank Gravel

Run-of-bank gravel or other acceptable granular material free from organic matter with a gradation by weight of 100% passing a 1-1/2 inch square opening, 30 to 65% passing a 1/4 inch square opening and not more than 10% passing a No. 200 mesh sieve as determined by washing through the sieve in accordance with ASTM D422.

- F. Type F
 - 1. Run-of-crusher Stone

Run-of-crusher hard durable limestone or approved equal having the following gradation by weight:

<u>% Passing</u>	Square Opening (inches)
100	1-1/2
95 - 100	1
65 - 80	1/2
40 - 60	1/4
0 - 10	#200 Sieve

3.2 INSTALLATION

A. Special granular material as specified or directed for pipeline embedment shall be placed in accordance with the Section entitled "Earthwork, Trenching, Backfilling and Compacting".

B. Special backfill where specified or directed shall be placed in accordance with the backfilling provisions of the Section entitled "Earthwork, Trenching, Backfilling, and Compacting".

3.3 DISPOSAL OF DISPLACED MATERIALS

A. Materials displaced through the use of Select fill shall be wasted or disposed of by the CONTRACTOR and the cost of such disposal shall be included in the unit price bid for each of the materials.

3.4 SETTLEMENTS

A. Any settlements in the finished work shall be made good by the CONTRACTOR.

END OF SECTION

SECTION 02502

RESTORATION OF SURFACES

PART 1 GENERAL

1.1 SUMMARY

- A. This Section includes restoration and maintenance of all types of surfaces, sidewalks, curbs, gutters, culverts and other features disturbed, damaged or destroyed during the performance of the work under or as a result of the operations of the Contract.
- B. The quality of materials and the performance of work used in the restoration shall produce a surface or feature equal to the condition of each before the work began.

1.2 SUBMITTALS

- A. In addition to those submittals identified in the General Provisions, the following items shall be submitted:
 - 1. The location of source and data for off-site topsoil.
 - 2. Analysis of the seed.
 - 3. Should hydro-seeder be used, the CONTRACTOR shall submit all data including material and application rates.

PART 2 PRODUCTS

NOT USED

PART 3 EXECUTION

- 3.1 GENERAL
 - A. The replacement of surfaces at any time, as scheduled or as directed, shall not relieve the CONTRACTOR of responsibility to repair damages by settlement or other failures.

3.2 TEMPORARY PAVEMENT

A. Immediately upon completion of refilling of the trench or excavation, the CONTRACTOR shall place a temporary pavement over all disturbed areas of streets, driveways, sidewalks, and other traveled places where the original surface has been disturbed as a result of his operations.

- B. Unless otherwise specified or directed the temporary pavement shall consist of compacted run-of-crusher limestone to such a depth as required to withstand the traffic to which it will be subjected.
- C. For dust prevention, the CONTRACTOR shall treat all surfaces, not covered with cold patch, as frequently as may be required.
- D. The temporary pavement shall be maintained by the CONTRACTOR in a safe and satisfactory condition until such time as the permanent paving is completed. The CONTRACTOR shall immediately remove and restore all pavement as shall become unsatisfactory.

3.3 RESTORATION OF BITUMINOUS SURFACES

- A. The permanent and final restoration of all bituminous driveways and similar surfaces where pavement has been removed, disturbed, settled or damaged by or as a result of performance of the Contract shall be repaired and replaced by the CONTRACTOR, by a new and similar pavement.
 - 1. The permanent asphalt pavement replacement for driveways and parking area surfaces shall be replaced with bituminous materials of the same depth and kind as the existing unless otherwise specified.
 - 2. Prior to placing of any bituminous pavement a sealer shall be applied to the edges of the existing pavement and other features.
 - 3. The top surface shall conform with the grade of existing adjacent pavement.
 - 4. Any base material which has become unstable for any reason shall be removed and replaced with compacted base materials.

3.4 STONE OR GRAVEL PAVEMENT

- A. All pavement and other areas surfaced with stone or gravel shall be replaced with material to match the existing surface unless otherwise specified.
 - 1. The depth of the stone or gravel shall be at least equal to the existing.
 - 2. After compaction the surface shall conform to the slope and grade of the area being replaced.

3.5 LAWNS AND IMPROVED AREAS

- A. General
 - 1. When required to obtain germination, the seeded areas shall be watered in such a manner as to prevent washing out of the seed.
 - 2. Any washout or damage which occurs shall be regraded and reseeded until a good sod is established.

- 3. The CONTRACTOR shall maintain the newly seeded areas, including regrading and reseeding, in good condition.
- B. Topsoil
 - 1. Topsoil shall be unfrozen friable clayey loam free from clay lumps, stones, roots, sticks, stumps, brush or foreign objects.
 - 2. The area to receive topsoil shall be graded to a depth of not less than 4 inches or as specified, below the proposed finished surface.
 - If the depth of existing topsoil prior to construction was greater than 4 inches, topsoil shall be replaced to that depth.
 - All debris and inorganic material shall be removed and the surface loosened for a depth of 2 inches prior to the placing of the topsoil.
 - The topsoil shall not be placed until the subgrade is in suitable condition and shall be free of excessive moisture and frost.
- C. Seed
 - 1. Seed mixtures shall be of commercial stock of the current season's crop and shall be delivered in unopened containers bearing the guaranteed analysis of the mix.
 - All seed shall meet the State standards of germination and purity.
 - 2. When the topsoil surface has been fine graded, the seed mixture shall be uniformly applied upon the prepared surface.
 - Seeding and mulching shall not be done during windy weather.
- D. Mulch
 - 1. Mulch shall be stalks of oats, wheat, rye or other approved crops which are free from noxious weeds.
 - 2. The mulch shall be hand or machine spread to form a continuous blanket over the seed bed, approximately 2 inches uniform thickness at loose measurement.
 - Unless otherwise specified, mulch shall be left in place and allowed to disintegrate.
- E. Hydro-seeding
 - 1. Hydro-seeding may be accepted as an alternative method of applying fertilizer, seed and mulch. The CONTRACTOR shall submit all data regarding materials and application rates to the Engineer for review.

3.6 OTHER TYPES OF RESTORATION

- A. Trees, shrubs and landscape items damaged or destroyed as a result of the construction operations shall be replaced in like species and size.
 - 1. All planting and care thereof shall meet the standards of the American Association of Nurserymen.
- B. Storm utilities destroyed or removed as a result of the construction operations shall be replaced in like size and material and shall be replaced at the original location and grade. When there is minor damage to a culvert and with the consent of the Engineer, a repair may be undertaken, if satisfactory results can be obtained.

3.7 MAINTENANCE

A. The finished products of restoration shall be maintained in an acceptable condition during the project until the date of Final Payment or other such date as set forth elsewhere in the Contract Documents.

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SECTION 02600

POLYVINYL CHLORIDE PIPELINE INSTALLATION

PART 1 GENERAL

1.1 SUMMARY

A. This Section includes polyvinyl chloride non-pressure pipe as shown on the Contract Drawings, complete with accessories.

1.2 REFERENCES

- A. Materials and installation shall be in accordance with the latest revisions of the following codes, standards, and specifications, except where more stringent requirements have been specified herein:
 - 1. American National Standards Institute (ANSI)
 - 2. American Society of Testing and Materials (ASTM)

1.3 SUBMITTALS

- A. In addition to those submittals identified in the General Provisions, the following items shall be submitted:
 - 1. Drawings and manufacturers data of the pipe, joints and fittings showing compliance with this specification.
 - 2. Manufacturer's certification that all materials furnished are in compliance with the applicable requirements of the referenced standards and this specification.

PART 2 PRODUCTS

2.1 MATERIALS AND CONSTRUCTION

- A. Polyvinyl chloride pipe shall be made from Class 12454-B materials or better in accordance with ANSI/ASTM D 1784.
- B. Polyvinyl chloride pipe and accessories shall conform to the requirements of the following with a minimum pipe stiffness of 46 psi at a maximum deflection of 5%:

ANSI/ASTM D3034 (4"-15") ASTM F679 (18"-27")

- C. Inspection
 - 1. Pipe and appurtenances shall be inspected by the CONTRACTOR on delivery and prior to installation for conformance with the standards and

specifications.

a. Materials not conforming to the standards and specifications shall not be stored on site but removed at once and replaced with material conforming to the specifications.

2.2 ACCESSORIES

- A. Fittings and Couplings
 - 1. Polyvinyl chloride fittings and couplings shall conform to the requirements of the PVC pipe for classification and size.

B. Joints

- 1. Rubber gaskets for elastomeric joints shall conform to ANSI/ASTM F477.
 - a. Lubricant for the joints shall be furnished by the pipe manufacturer.
 - b. The rubber gaskets shall be factory installed in the bell of the pipe, fittings and couplings.
- 2. The plain end of the pipe shall be marked by the manufacturer to show the depth of penetration into the bell or coupling.

PART 3 EXECUTION

3.1 INSTALLATION - UNDERGROUND

- A. General
 - 1. Install polyvinyl chloride pipe, fittings, specials, and accessories in accordance with the contract documents and the applicable provisions of the Sections entitled "Earthwork, Trenching, Backfilling and Compacting".
 - 2. Polyvinyl chloride pipe shall be handled and stored in accordance with the manufacturer's recommendations.
 - 3. Field cuts of pipes shall be in accordance with the manufacturer's instructions.
 - 4. Excavation and backfilling shall be in accordance with the applicable provisions of the Section entitled "Trenching, Backfilling and Compacting".
 - 5. Blocking will not be permitted under pipe.
 - 6. No pipe shall be laid upon a foundation in which frost exists; nor at any time when there is danger of the formation of ice or the penetration of frost at the bottom of the excavation.

- 7. Temporary bulkheads shall be placed in all open ends of pipe whenever pipe laying is not actively in process. The bulkheads shall be designed to prevent the entrance of dirt, debris or water.
- 8. Precautions shall be taken to prevent the flotation of the pipe in the event of water entering the trench.
- B. Location and Grade
 - 1. Pipelines and appurtenances shall be located as shown on the Contract Drawings or as directed.
 - 2. The alignment and grades shall be determined and maintained by a method acceptable to the Engineer.
- C. Subgrade

The subgrade for pipelines shall be earth or special embedment as specified or directed and shall be prepared in accordance with the Section entitled "Earthwork, Trenching, Backfilling and Compacting".

- D. Joints
 - 1. Joints shall be assembled using gaskets, lubricants and solvents as furnished by the pipe manufacturer and in accordance with the manufacturer's recommendations.
 - 2. Rubber gaskets for elastomeric joints shall conform to ANSI/ASTM F477.
 - a. Lubricant for the joints shall be furnished by the pipe manufacturer.
 - b. The rubber gaskets shall be factory installed in the bell of the pipe, fittings and couplings.
 - 3. The plain end of the pipe shall be marked by the manufacturer to show the depth of penetration into the bell or coupling
- E. Embedment
 - 1. Embedment shall be deposited and compacted in accordance with the Section entitled "Earthwork, Trenching, Backfilling and Compacting", and the Section for the type of pipe being installed and shall be one of the embedments shown below unless otherwise specified or directed.

2. Type "A" Embedment

Pipe of:	Cast Iron Soil
	Copper
	Corrugated Steel
	Ductile Iron
	Reinforced Concrete
	Prestressed Concrete
	Vitrified Clay
	Wrought Steel

- a. The embedment shall be native material excavated from the trench, which is acceptable to the Engineer, containing no stones larger than $1-1/\Box$ inches in size or debris.
- b. Embedment material shall be deposited and tamped in 6-inch layers to the centerline of the pipe.
- c. Native material placed above the centerline of the pipe to a depth of 12 inches above the pipe shall be deposited in such manner as to not damage the pipe.
- d. When specified or directed, Select Fill material shall be used in lieu of the native material for a or c above.
- 3. Type "C" Embedment

Non-pressure pipe of: Fiberglass Polyvinyl chloride Thermal Plastic

- a. The embedment shall consist of compacted Type F granular materials placed from a depth of 4 inches below the pipe to a depth of 12 inches over the pipe.
 - 1) Embedment material shall be deposited and hand-compacted in 6-inch maximum layers.
- F. Service Connections
 - 1. Connections to sewers shall be saddle, wye or tee branches as specified.
 - a. Saddle and wye branches shall be installed, in general, so that the top of the branch is at the top of the pipe.
 - b. Each saddle, wye and tee branch shall have a concrete cradle.
 - 2. Laterals of the kind and size of pipe as specified shall be installed as shown, specified or directed.

- a. Bends, as required, shall be used between the connection and the lateral, to obtain the correct slope and to allow the horizontal angle of the lateral to be at 90 degrees to the main line or other angle as specified or directed.
- b. Minimum slope for a lateral shall be 1/4 inch per foot.
- c. Maximum slope for a lateral shall be 2 feet per foot unless otherwise specified.
- d. Each lateral having a slope of 1 foot per foot or greater shall have a concrete cradle or as a minimum Class C concrete shall be placed 6" each side of and from a depth of 3 inches below to the centerline of the lateral pipe.
- e. Laterals exceeding the maximum slope shall be supported to prevent excessive load being applied to the main line pipe and shall be encased in a minimum of 6 inches of Class C concrete.
- f. The end of each connection or lateral shall have a 2 inch by 4-inch marker extending vertically from the stopper to 3 feet above the ground surface. The portion of the 2 inch by 4-inch marker extending above the ground shall be painted green.
- 3. Connections and ends of laterals shall not be backfilled until a record has been made of the "as-built" location of each.
- G. Connection to Existing Structures or Manholes
 - 1. Where a stub has been provided the connection shall be made to the existing pipe.
 - 2. Where no stub has been provided, the CONTRACTOR shall make an opening for inserting the connecting pipe.
 - a. When specified, a sleeve shall be installed and a watertight joint formed.
 - 1) The carrier pipe shall be installed in the sleeve and the joint made watertight.
 - b. Where no sleeve is specified, the space between the pipe and the wall of the structure or manhole shall be made watertight.
 - c. A joint shall be in the pipe at or within 5 feet of a structure or manhole.
 - d. A channel shall be built or the existing channel revised, to direct the flow from or into the new pipe.

e. Care shall be taken to avoid damage to the existing structure or manhole and to prevent debris from entering any existing channel. Any damage shall be repaired and debris removed.

3.2 FIELD TESTING

- A. Pipe deflection shall be checked by passing a deflection gauge through all completed pipelines.
 - 1. Maximum deflection allowed 5%.
 - 2. The test for deflection shall be made not less than 30 days after the completion of the installation.
 - 3. Deflection gauge shall be pulled through the pipe by hand.
 - 4. Any section of pipe found to have a deflection in excess of 5% shall be corrected by the CONTRACTOR.

3.3 FINAL INSPECTION OF SEWERS

- A. Each section of pipe between manholes shall be inspected prior to final acceptance.
 - 1. In smaller pipelines the inspection shall be by observation with illumination.
 - 2. Where specified, the inspection shall be by closed circuit television.
 - a. Shall be monitored by both the Engineer and the CONTRACTOR.
- B. The inspection shall determine the pipeline to be true to line and grade, to show no leaks, to have no obstruction to flow, to have no projections or protruding of connecting pipes or joint materials, shall be free from cracks and shall contain no deposits of sand, dirt or other materials.
- C. All deficiencies located during the inspection shall be corrected.

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SECTION 02602

LEAKAGE TESTS

PART 1 GENERAL

1.1 SUMMARY

- A. This Section includes leakage tests of all structures and piping for leakage as specified.
 - 1. The CONTRACTOR shall furnish all labor, equipment, test connections, vents, and materials necessary for carrying out the pressure and leakage tests.
- B. All testing shall be witnessed by the Engineer.

1.2 SUBMITTALS

- A. In addition to those submittals identified in the General Provisions, the following items shall be submitted:
 - 1. Reports of test results.

PART 2 PRODUCTS

NOT USED

PART 3 EXECUTION

3.1 TEST FOR NON-PRESSURE PIPELINES FOR TRANSPORT OF WATER OR SEWAGE

- A. General
 - 1. Pipelines designed to carry water or sewage in open channel flow or at minimal pressures shall be tested for leakage prior to being placed in service.
 - 2. The leakage shall be determined by exfiltration, infiltration or low pressure air.
 - a. The testing method directed by the Engineer shall take into consideration the groundwater elevation of the section of pipe being tested.
 - b. The maximum non-pressure pipeline to be tested for leakage shall be the section between manholes or 600 feet as directed by the Engineer.

- 3. Intermediate leakage tests during construction shall be made at the CONTRACTOR's discretion. Upon completion of any pipeline, the entire system including manholes shall be tested for compliance to allowable leakage.
- 4. When testing absorbent pipe materials such as cement or concrete, the pipeline shall be filled with water at least 24 hours before the test is made.
- 5. Groundwater level shall be determined by the CONTRACTOR prior to any testing by reading the water level at the observation pipe in the manholes.
- 6. If the line fails the test, the CONTRACTOR shall explore for the cause of the excessive leakage and after repairs have been made the line shall be retested. This procedure shall be repeated until the pipe complies.
- B. Exfiltration Testing
 - 1. Exfiltration tests shall be made by filling a section of pipeline with water and measuring the quantity of leakage.
 - 2. The head of water at the beginning of the test shall be at least 2 feet above the highest pipe within the section being tested.
 - a. Should groundwater be present within the section being tested, the head of water for the test shall be 2 feet above the hydraulic gradient of the groundwater.
 - b. Should the requirement of 2 feet of water above the highest pipe subject any joint at the lower end of the test section to a differential head of greater than 11.5 feet another method of testing shall be employed.
- C. Infiltration Testing
 - 1. Infiltration tests will be allowed only when the water table gauges determine the groundwater level to be 2 feet or more above the highest pipe of the section being tested.
 - 2. Infiltration test shall be made by measuring the quantity of water leaking into a section of pipeline.
 - 3. Measurement of the infiltration shall be by means of a calibrated weir constructed at the outlet of the section being tested.
- D. Allowable Leakage for Non-Pressure Pipelines
 - 1. The allowable leakage (exfiltration or infiltration) for non- pressure pipelines shall not exceed the following in gallons per 24 hours per inch of diameter per 1000 feet of pipe:

Type of Pipe	Leakage
Polyvinyl chloride, thermal plastic or fiberglass with rubber joints	10
Polyvinyl chloride, thermal plastic or fiberglass with solvent-cemented joints	0
Cast iron soil pipe	
 drains and vents sewer laterals 	0
All piping inside structures	0

Regardless of the above allowable leakage any spurting leaks detected shall be permanently stopped.

E. Air Testing

- 1. For the acceptance of air testing in lieu of hydrostatic testing (exfiltration or infiltration), the CONTRACTOR shall perform hydrostatic and air tests on at least three sections of pipeline for each type of pipe being used. The Engineer shall select the sections for the corroborative tests. If these duel tested sections indicate the same results, that is, acceptance under both tests, air testing will be allowed in lieu of hydrostatic testing to meet the project requirements.
- 2. Air testing for acceptance shall not be performed until the backfilling has been completed.
- 3. Low pressure air tests shall conform to ASTM F1417 except as specified herein and shall not be limited to type or size of pipe.
- 4. All sections of pipelines shall be cleaned and flushed prior to testing.
- 5. The air test shall be based on the average holding pressure of 3 psi gauge, a drop from 3.5 to 2.5 psi, within the period of time allowed for the size of pipe and the length of the test section. The time allowed for the 1 psi drop in pressure, measured in seconds, will be computed by the Engineer and will be based on the limits of ASTM F1417.
 - a. When groundwater is present the average test pressure of 3 psig shall be above any back pressure due to the groundwater level.

- b. The maximum pressure allowed under any condition in air testing shall be 10 psig. The maximum groundwater level for air testing is 13 feet above the top of the pipe.
- 6. The equipment required for air testing shall be furnished by the CONTRACTOR and shall include the necessary compressor, valves and gauges to allow for the monitoring of the pressure, release of pressure and a separable test gauge.
 - a. The test gauge shall be sized to allow for the measuring of the one psig loss allowed during the test period and shall be on a separate line to the test section.

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