Canton, Ohio

CANTON CITY
ENGINEERING DEPARTMENT

Construction
Contract and Specifications

FOR

WSI-ESI INTERCONNECTION VAULTS

GENERAL PROJECT NO. 1114

For information only.
Bidders must purchase bid documents from the City Engineering Department in order to submit a bid on this project.

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LEGAL NOTICE

Sealed bids will be received by the Director of Public Service of the City of Canton, Ohio/Contract Office, 218 Cleveland Ave. S.W., 6th Floor, City Hall Building, Canton, OH 44702 until 2:00 p.m. Wednesday March 6th, 2013 for GP 1114, WSI-ESI Interconnection Vaults, as per plans and specifications on file in the Engineering Department at 2436 30th St. N.E.

Please be advised that the Bid Opening will be held in the conference room located on the sixth floor of the City Hall building. Any bid that not submitted on or before 2:00 p.m. on the day of the Bid Opening will be disqualified. Bids received will be opened and publicly read immediately after the expiration of the time for filing such bids.

The estimated construction cost for this project is $296,00.00. Each bidder must submit evidence of its experience on projects of similar size and complexity.

The proposal blanks provided in the bid package must be used in submitting bids. The City will not accept any other submittals.

Each bid must contain the name of every person or company interested in the same and be accompanied by a certified check, cashier's check, or surety bond, in accordance with Section 153.54 of the Ohio Revised Code, drawn on a solvent bank or bonding company licensed in the State of Ohio to provide said surety and satisfactory to the Director of Public Service as a guarantee that if the bid is accepted, a contract will be entered into and its performance properly secured.

Said certified check or cashier's check shall be in the amount of ten percent (10%) of the total amount bid. Where a bid bond is used, it shall be in an amount of one hundred percent (100%) of the total amount of the bid.

The City of Canton will only accept original checks and bid bonds. Therefore, if any company and/or bidder(s) submit a copy (including faxed copies) of his/her security, the bid will be disqualified.

Should any bids be rejected, such Bond, Certified Check or Cashier's Check shall be returned upon the proper execution and securing of the contract.

The Director of Public Service reserves the right to waive any technical defects in any bid bond submitted so long as the bond is in substantial compliance with State Law.

The Party awarded contract should be prepared to furnish surety bond for faithful performance.
All bids must be firm bids. Bids containing an escalator clause will not be considered.

Plans and specifications can be viewed at www.cantonohio.gov. However, in order to be considered as a responsive bidder, bidders must obtain plans, specifications, and proposal blanks. Bidders may obtain plans, specifications, and proposal blanks at the office of the Engineering Department at 2436 30th St. N.E., upon the payment of the sum of $30.00. No refunds will be made for plans returned.

All contractors and subcontractors involved with the project will, to the extent practicable use Ohio products, materials, services, and labor in the implementation of their project.

Bidders must comply with prevailing wage rates on Heavy and Highway construction projects for the State of Ohio as included in the contract documents.

The Board of Control reserves the right to reject any and all bids. The Board of Control will accept the bid(s) deemed most beneficial to the City of Canton.

It is now the City's policy that for IRS purposes, all companies must submit their Federal I.D. number.

Authorization is by order of Warren Price, Canton City Service Director.

Published in the Repository: February 19 and February 26, 2013

NOTICE TO CONTRACTORS

Please be advised that it is the City of Canton Policy that the following bid forms be completed before the Contract can be executed. Please complete these forms and submit at the time of bid.

The EEO Bid Form 9 must be accompanied by the Company's Affirmative Action Plan.

Bid Form l

AUTHORITY OF BID SIGNATORY

The bidder shall indicate which of the following is the source of the bid signatory's authority to sign the bid on behalf of the bidder. The bidder shall follow the instructions noted.

_____ The party bidding is a sole partnership. Below the signature affixed on the Proposal Sheet, a sole proprietorship's owner shall write "sole owner" or "doing business as (name of bidder)".

_____ The party bidding is a partnership and the party signing is one of the partners. Below the signature affixed on the proposal sheet, a signatory for a partnership shall write "member of the firm".

_____ The party is a corporation. The party signing is authorized to sign on behalf of the corporation. A copy of the resolution of the corporation's board of directors which delegates signatory authority to the individual signing is to be attached to this bid form. This resolution can be a general delegation of authority for signing bids or can be a specific authorization for this project. The secretary of the corporation shall authenticate the resolution as currently being in full force and effect.

_____ Signatory authority is evidenced by other means noted below:

Bid Form 2

INSERT BID GUARANTY HERE

If a Bid Bond is supplied, the Ohio Statutory Bid Guaranty and Contract Bond, as set forth in ORC 153.571 is to be used.

See INSTRUCTIONS TO BIDDERS NO. 4 regarding requirements.

INSURANCE AFFIDAVIT

Each bidder shall obtain from its insurance representative and include in the bid submittal an insurance affidavit that contains the representations noted below. Make the affidavit on the insurance agency's letterhead, reference this project by name, and state at least the following:

(1.) The representative has reviewed and understands the insurance requirements (including the cancellation/non-renewal provisions) set forth in "General Conditions" § 1.14 Insurance.

(2.) The representative certifies that the company will provide the specified insurance should the contract be awarded to the contractor on whose behalf the certificate is being provided.

(3.) The names and A.M. Best Company ratings of companies required to provide the required insurance.

You must have the insurance affidavit notarized.

"General Conditions" INSURANCE § 1.14

A. The following standard indemnity agreement and minimum insurance requirements are incorporated in the Specifications for all work performed by the Contractor for the Owner, its affiliated and associated organizations or subsidiaries, hereinafter referred to as Owner.

I. The Contractor agrees to indemnify and save the Owner harmless from and against any and all costs, loss and expense, liability damages, or claims for damages, including cost for defending any action, on account of any injury to persons (including death) or damage to or destruction of property of the Owner, arising or resulting from the work provided for or performed, or from any act, omission, or negligence of the Contractor, Subcontractor and his or their agents or employees. The foregoing provisions shall in no way be deemed released, waived or modified in any respect by reason of any insurance or surety provided by the Contractor.

II. The Contractor shall maintain insurance of the kinds and in amounts specified in the attached schedule and furnish the Service Director with Certificates of Insurance as evidence thereof in the prescribed form. If any work provided for or to be performed

under any Specifications is sublet (as otherwise permitted by the terms of such Specifications), the Contractor shall require the sub-contractors to maintain and furnish him with satisfactory evidence of Workmen's Compensation, Employers' Liability and such other forms and amounts of insurance which Contractor deems reasonably adequate.

III. In accordance with Item II, the Contractor shall maintain the following insurance:

1. Workmen's Compensation and Employer's Liability Insurance affording,
   (a) protection under the Workmen's Compensation Law in the State of Ohio.
   (b) Employer's Liability protection subject to a minimum limit of $100,000.00.

2. Commercial General Liability Insurance in amounts not less than:

General Aggregate Limit	$2,000,000.00
Products - Completed Operations Aggregate Limit	$2,000,000.00
Personal and Advertising Injury Limit	$1,000,000.00
Each Occurrence Limit	$1,000,000.00
Fire Damage Limit	$50,000.00
Medical Expense Limit	$5,000.00

This insurance shall:

a. include coverage for the liability assumed by Contractor under Item I (Indemnity);

b. not to be subject to any of the special property damage liability exclusions commonly referred to as the XCU exclusions pertaining to blasting or explosion, collapse or structural damage and underground property;

c. not be subject to any exclusion of property used by the insured or property in the care, custody or control of the insured or property as to which the insured for any purpose is exercising physical control unless the required Builders Risk or Installation Floater coverage is indicated on the required Certificate of Insurance (Item III.4);

d. and the Certificates of Insurance furnished by the

Contractor shall show by specific reference that each of the foregoing items have been provided for.

e. **INCLUDE THE CITY OF CANTON, OHIO AND ITS AGENTS, AS ADDITIONAL INSURED FOR PURPOSES OF COVERAGE UNDER THE SUBJECT POLICY.**

3. Comprehensive Automobile Liability Insurance in the following minimum amounts:

Bodily Injury and Property Damage any one accident or loss:	$1,000,000.00

4. The contractor will provide and maintain Installation/Builders Risk Insurance to protect the interests of both the contractor and the owner for materials transported to the job, stored or installed on the premises, or stored at any temporary location off premises. Such insurance shall be written on an "All Risk" form to include the perils of Fire, Extended Coverage, Vandalism, Malicious Mischief, Theft, Collapse and Water Damage. The amount of Insurance shall be 100% of the insurable value of the work to be performed including all items of labor and materials incorporated therein, materials in storage on or off the job site to be used in completing the work, and such other supplies and equipment incidental to the work as are not owned or rented by the contractor, the cost of which is included in the direct cost of the work. This Insurance shall not cover any tools, derricks, machinery, tar buckets, ladders, engines, workmen's quarters, boilers, pumps, wagons, scaffolds, forms, compressors, shanties or other items owned or rented by the Contractor, the cost of which is not included in the direct cost of the work.

B. The Certificates of Insurance furnished by the Contractor as evidence of the Insurance maintained by him shall include a clause obligating the Insurer to give the Service Director ten (10) days prior written notice for cancellation or any material change in the insurance.

BIDDER'S AFFIDAVIT: NON-COLLUSION STATEMENT

This affidavit is to be filled out and executed by the bidder; if the bid is made by a corporation, then by its properly authorized agent.

STATE OF _____)
) SS: COUNTY OF _____)

_____

being first duly sworn, deposes and says that he is _____

_____
(sole owner, a partner, president, secretary, etc.)

of _____

the party making the enclosed proposal or bid, and say further that

_____
(Give names of all persons, firms or corporations interested in the bid) is or

_____

_____

_____

_____

are the only party or parties interested with the party making this bid in the profits of any contract which may result from the herein contained proposal; that the said proposal is made without any connection or interest in the profits thereof with any other person making any other bid or proposal for said work; that no member of the City of Canton, head of any department or bureau or employee therein or any official or officer of City of Canton, is directly or indirectly interested therein; that said proposal or bid is genuine and not collusive or sham; that said bidder has not colluded, conspired, connived, or agreed, directly or indirectly, with any bidder or person, to put in a sham bid, or that such person shall refrain from bidding, and has not in any manner, directly or indirectly, sought by agreement or collusion, or communication or conference, with any person, to fix the bid price of affiant or any other bidder, or to fix any overhead, profit or cost element of said bid price, or of that of any other bidder, or to secure any advantage against the OWNER, or any person interested in the proposed contract; and that all statements contained in said proposal or bid are true; that such bidder has not, directly or indirectly submitted this bid, or the contents thereof, or divulged information or data relative thereto any association or to any member or agent thereof; and further says that all the statements made by him in said proposal or bid are true.

_____
Affiant

Sworn to and subscribed before me this _____ day of

_____, 20 ____.

_____
Notary Public in and for

_____ County, _____

My Commission Expires:

_____, 20 _____.

BIDDER'S AFFIDAVIT: FOREIGN CORPORATION*

The undersign certifies that _____ is a foreign corporation incorporated in the State of _____, whose principal place of business is _____ and is required to obtain authorization to transact business in the State of Ohio.

The undersigned bidder further certifies that said authorization has been obtained and is in effect and the bidder has a designated statutory agent upon whom process against bidder corporation may be served within the State of Ohio. The designated

statutory agent is _____
(name and address)

_____.

Process served upon the designated statutory agent named above shall be effective service, unless the Owner has been informed, by certified mail or its equivalent (return receipt), of a change in the agent upon whom process can be served.

_____ _____
Date Signed

_____
Title

Note: This statement is to be reproduced on the bidder's letterhead, signed by the authorized bid signatory, notarized and submitted with the bid.

***Any corporation that is not incorporated in the State of Ohio is a foreign corporation.**

INSTRUCTIONS TO BIDDERS

(1) Bidders are advised to examine, before submitting their bids, the location of the proposed work, as well as the specifications and form of contract. There may be changes in the specifications from those heretofore used; it is hereby understood that a bidder has read and fully understands each and every clause embodied in this contract. And no information derived from the Engineer's office will in any way relieve the Contractor from any risks or from fulfilling all of the terms of this contract.

(2) Bidders shall obtain copies of the specifications, blank proposal and the estimated quantities of the amount of work to be done at the Canton City Engineer's Office.

(3) Proposal must be made out upon the blank forms furnished as stated in Appendix E, sealed, and addressed to the Service Director of the City of Canton, Contract Office – 6th Floor, 218 Cleveland Avenue S.W., P.O. Box 24218, Canton, Ohio 44701-4218, Attn: Steve Henderson and endorsed thereon "Proposal for the GP 1114, WSI-ESI Interconnection Vaults", and must be deposited with all papers bound thereto.

(4) Each proposal shall be accompanied by a bid guarantee which shall consist of one of the following:

Ohio Statutory Bid Guaranty and Contract Bond, substantially in the form prescribed by ORC 153.571. The 153.571 statutory bond form requires that the penal amount be an amount not less than the bid price. It is a bid error to write in an amount equal to ten percent (10%) of the amount bid.

NOTE: A certified check or cashier's check in an amount not less than ten percent (10%) of the total amount bid for all items upon which the proposal is made. Such a bid guarantee check shall be made payable to the OWNER without condition.

Bidders using the Ohio Statutory Bid Guaranty and Contract Bond Form can leave the penal amount blank, if such is acceptable to the bidder and the surety. The statutory bond form, per ORC 153.571, is read as having a penal amount equal to the price bid, if no amount is written.

In case a bidder to whom a contract award is made shall fail to execute and secure a contract within ten (10) days after notice of award in writing, the award shall be vacated and the bid guarantee, in an amount not to exceed ten percent (10%) of the amount bid, forfeited.

Bid Bond must be provided by an approved surety company authorized to transact business in the State of Ohio and with local agent. Agents of bonding companies which write the Bid Bond for this contract shall be licensed to conduct business in the State of Ohio and have a local (Ohio) agent. Each bid shall contain the power of attorney, bearing the seal of the company and evidencing such agent's authority to execute the documents furnished. Identification of the local agent is to accompany each Bond.

The surety used for the bid bond shall be listed in the current edition of the U.S. Treasury Circular 570 and the Penal Sums shall be within the maximum specified for such company in said Circular 570.

(5) A proper and complete bid must be made for every item in the proposed contract, as shown by the Engineer's estimate, except where alternate bids are called on several items, but he must bid upon sufficient number of items to make a proper and complete bid on all the work. Any bid which is not a proper and complete bid or which contains bids on items not specified will be considered informal.

(6) Any bidder may withdraw the bid(s), by written request, at any time prior to the hour set for the bid opening. If there is no withdrawal of the bid(s), in accordance with the above procedure, the City reserves the right to enforce said bid price(s) and/or contract. Please note that by submitting your bid(s) to the City of Canton, the City assumes that said bid(s) has been reviewed by an authorized representative of your company to assure that the bid(s) is/are correct and/or accurate.

(7) No contract will be awarded to any bidder who is in arrears to the City of Canton upon debt or contract, or who is a defaulter as surety or otherwise upon any obligation to said City.

(8) Failure to have performed satisfactorily any contract previously awarded to the bidder by the City will be sufficient reason for rejection of his bid.

(9) Bidders are required to state in their proposals their names and places of residence, and the names and places of residence of all persons interested with them, and if no other person be so interested they shall distinctly state the fact.

(10) Deleted.

(11) In case of partnership the firm name and the name of each individual partner must be written; in the case of corporations, the corporation name must be signed by some one of its officers duly authorized to do so.

(12) Each bid must be accompanied by a surety bond satisfactory to the Service Director, or a certified check in the amount stated in the advertisement, made payable to the Service Director, City of Canton, Ohio as a guarantee that if the bid be accepted, a contract will be entered into and its performance properly secured.

(13) The successful bidder, to whom the contract may be awarded, shall be required to execute the contract, and furnish a bond satisfactory to the Service Director, within ten (10) days from the date of service of notice to that effect. In case of failure to do so, he will be considered as having abandoned it, and the deposit accompanying the proposal shall thereupon be forfeited to the City of Canton, and the work may be re-advertised or awarded to the next higher bidder, as the Service Director may determine. Such bond shall be of an approved guaranty company, satisfactory to the Service Director in the sum of the total price bid for the completed work.

(14) All proposals shall be publicly opened and read immediately after the time stated in the advertisement.

(15) The proposals will be compared on the basis of the Engineer's estimate of quantity of work to be done, and materials to be furnished. They are approximate only, and the City expressly reserves the right to increase or decrease them or to omit any item, during the construction of the improvement, that the Service Director may deem advisable.

(16) The bidder must submit, at the time specified, the various samples, statements, affidavits, plans, etc., required hereunder.

(17) Additional information is included in the copy of Legal Notice, Page 1.

(18) Instructions must be adhered to; failure strictly to observe them shall constitute a sufficient cause for the rejection of a bid.

(19) The Service Director reserves the right to reject any or all bids.

(20) No bid will be considered unless the bidder shall furnish evidence, satisfactory to the Service Director, on the space provided, following this paragraph, that he has the necessary facilities, ability and pecuniary resources to fulfill the conditions of the contract and specifications. The Service Director may require additional evidence if he deems it necessary. (Attach additional sheet if necessary.)

GENERAL SPECIFICATIONS

(The headings of the various sections are intended for convenience in reference and not to be considered a part of the specifications.)

(21) **Definitions:** The term "City" wherever used in these specifications shall mean the City of Canton, acting through its Service Director, or his properly authorized agents, such agents acting severally within the scope of the particular duties entrusted to them.

The term "Director" wherever used shall mean the Service Director of the City of Canton, duly appointed and holding office at the same time the contract was executed or during the fulfillment thereof.

The term "Engineer" whenever used, shall mean the City Engineer of said City or his properly authorized agents to the extent of the powers invested in them.

The term "Contractor" wherever used, shall mean the party of the second part entering into contract with the City for the performance of the work herein specified, or his properly authorized agents.

In all cases when the term "days" as used in these specifications shall be held to mean calendar days, unless otherwise noted.

The term "Work" wherever used, shall mean the furnishing of all labor, tools, machinery and the furnishing of all materials, except as herein otherwise specified, necessary to performing and completing of all the work herein specified. The methods and appliances used therefor must be such as will produce a satisfactory quality of work and ensure safety to the workmen, the public and to property.

Wherever, in the specifications, or upon the drawings and plans, the words directed, required, permitted, ordered, designated, prescribed, or words of like import are used, it shall be understood that the direction, requirement, permission, order, designation or prescription of the City is understood, and similarly, the words approved, acceptable, satisfactory to, refer to the City unless otherwise expressly so stated.

(22) **Decisions:** All the work under this contract shall be done to the satisfaction of the City, which in all cases shall determine the amount, quality, acceptability, and fitness of the several kinds of work and materials which are to be paid for hereunder, and shall decide all questions which may arise as to the fulfillment of this contract on the part of the Contractor, and the City's determination and decision thereon shall be final and conclusive; and the City's determination and decision in case of any question that may arise, shall be a condition precedent to the right of the Contractor to receive any money hereunder.

(23) **Orders to the Contractor and Failure to Execute:** The address given in the bid or proposal upon which this contract is founded is hereby designated as the place where all notices, letters and other communications to the Contractor shall be mailed or delivered. Such address may be changed at any time by a written notice from the Contractor and delivered to the City.

The Contractor must have on the work at all times, a foreman, superintendent or other competent representative, to whom orders and instructions may be given. Such orders and instructions shall have the same force and effect as if given directly to the Contractor.

Whenever instructions or orders which in the opinion of the Engineer require prompt or immediate attention, are neglected or ignored by the Contractor or his Superintendent, the Engineer shall have the power to place necessary men, machinery and materials on the work and charge the entire cost, including overhead expenses, to the Contractor, who shall either pay the entire cost and expenses into the City Treasury, or the amount thereof shall be deducted from money due the Contractor under the contract.

(24) **Subletting or assigning contract:** The Contractor shall give his personal attention to the faithful prosecution of the work, shall retain the same under his personal control and shall not assign by power of attorney or otherwise, nor sublet the work or any part thereof, without the previous written consent of the City, and shall not, either legally or equitably assign any of the money payable under this agreement, or his claim hereto except by and with the consent of the City.

Assigning or subletting of the whole or any portion of this contract shall not operate to release the Contractor or his bondsmen or surety hereunder from the contract obligations.

(25) **Subsidiary Contracts:** The Engineer may, when in his opinion, it becomes necessary, make alterations or modifications of the plans and specifications, or order additional materials and work, subject to the approval of the Director; and the Contractor shall be obliged to accept such alterations, modifications and additional work and materials not included in this contract. The price to be paid for the work under such altered or modified contract shall be agreed upon in writing, in a subsidiary contract for such portion of, or additional improvement and signed by the Director and Contractor, before such work is done; such additional work, alteration or modification shall be considered and treated as though originally contracted for and shall be subject to all the terms, conditions and provisions of the original contract, except that a material increase in the amount of work will be considered as a proper claim by the Contractor for an extension of the contract time for completion, by an amount to be determined by the City.

And it is expressly agreed and understood that such alterations, additions or modifications or omissions shall not, in any way, violate, or annul the original contract and the Contractor hereby
agrees not to claim or bring suit for any damages, whether for loss of profits or otherwise, on account of such alterations, additions, modifications or omissions.

(26) **Inspection:** No material of any kind shall be used in the work until it has been inspected and accepted by the City. The Contractor must furnish all labor necessary in handling such material for inspection. All materials rejected must be immediately removed from the vicinity of the work. Materials or workmanship found at any time to be defective shall be immediately remedied by the Contractor, regardless of previous inspection.

The Engineer, his assistants, inspectors and agents, together with 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 therefor.

The Engineer, his assistants and agents shall at all times have immediate access to all places of manufacture where materials are being made for use under this contract, and shall have full facilities for inspecting the same.

No work shall be done except in the presence of the Engineer, his assistants, agents or inspectors. It shall be the duty of such agents or inspectors to see that all materials used and all work done shall be strictly in accordance with these specifications, but such agents and inspectors shall have no authority whatsoever to order any change in materials, manner of doing the work or quantity of work done.

The field inspection of the work, testing of materials, giving lines and grades, preparation of general and detail drawings, except as otherwise specified, will be done by the Engineer. The inspection and supervision by the Engineer is intended to aid the Contractor in supplying all materials and in doing all work in accordance with the drawings and specifications, but such inspection shall not operate to release him from any of his contract obligations.

(27) **Time for doing work:** The City is instructing the Contractor to base the project schedule upon a 5 day workweek, Monday through Friday from 8:00 am to 4:30 pm except on City recognized holidays. This will be known as the "standard schedule". The Engineer may direct the Contractor to work outside of the standard schedule to save life or property or in case of emergencies. If the Contractor wishes to work outside of the standard schedule, the Contractor must submit this request in writing to the Engineer. The Engineer will review nonstandard scheduling and approve/deny the request. The Engineer will base his approval/denial upon benefit to the project, benefit to the City, and necessity to facilitate Contractor operations. Contractor must make special provisions for project inspection for nonstandard schedules and will be required to pay for all costs associated inspection for approved nonstandard schedules. This includes both City personnel as well as consultants representing the City. The Engineer shall determine method of payment when the need arises. (See also Section 60).

(28) **Working Season:** Work done under these specifications, such as grading of streets and placing foundation for paving, curb setting, brick or other roadway paving, sidewalk laying, shall cease from the first day of December until the first day of April of the following year, unless otherwise directed by the Engineer.

(29) **Lines and grades:** All work done under this contract shall be done in accordance with the lines, grades and instructions as given by the City and as directed in the plans.

(30) **Order of procedure of work:** The Contractor shall proceed with the work at such points as the Engineer may direct, and not more than two adjoining blocks or squares in

length, shall be torn up at the same time, unless otherwise directed by the Engineer; nor shall any block be closed to traffic, except where the Contractor is actually working.

Whenever, in the opinion of the City, it is necessary that certain portions of the work be done immediately, the Contractor upon written order from the Engineer, shall proceed with such work without delay. Should he fail to so proceed, the City may do, or cause to be done, such work, and the cost of the same will be deducted from any money due, or to become due the Contractor under this contract.

(31) **Incompetent workmen:** Any employee of or persons connected with the Contractor who shall use profane or abusive language to the inspector, or other employees of the City, or otherwise interfere with them in the performance of their duties, or who shall disobey or evade the instructions of such employees of the City, or who is careless or incompetent, or who is objectionable to the City authorities, shall be discharged at the request of the Engineer, and shall not again be employed, except with his consent. Skilled labor only shall be used in the cases where the same is required.

(32) **Suspending the work:** The City, on account of public necessity, adverse weather conditions, or for other reasons, may order any portion or all work suspended, and thereupon the Contractor shall neatly pile up all materials, provide and maintain board walks and crossings, and take other means to properly protect the public and the work and to facilitate traffic. In case of such suspension of work, the time allowed for the completion of the work shall be extended in an amount equal to that lost by the Contractor, but the Contractor shall be entitled to no additional claim for damages therefor.

(33) **Forfeiture of contract:** Should the work to be done under this contract be abandoned by the Contractor, or if this contract or any part thereof be assigned or the work sublet by him without the previous written consent of the City or if at any time any official of the City or employee thereof become directly or indirectly interested in this contract or in furnishing the supplies or performing the work hereunder, or in any portion thereof; or if at any time the City may be of the opinion that the performance of the contract is unnecessarily or unreasonably delayed, or that the Contractor is willfully violating any of the provisions of this contract; or if the work be not fully completed within the time named in the contract; then and in any such case the City may notify the Contractor in writing to discontinue all work or any part hereof as may be designated, and the City may thereupon, according to law, enter upon and take possession of the work or part thereof, complete, or cause the same to be completed, and charge the entire expense of so completing the work or part thereof to the Contractor; and for such completion, the City itself or for its Contractors, may take possession of and use or cause to be used any materials, machinery, or tools of every description provided by the Contractor for the purpose of this work, and may procure or cause to be procured other materials, machinery, or tools required for the completion of the work.

All cost and expenses, including those of re-letting, (and damages resulting from the non-completion of the work within the specified time) incurred under these clauses, or by virtue of this contract, shall be deducted and paid by the City out of any monies then due or to become due the Contractor under and by virtue of this contract or any part thereof. In case

such cost and expenses shall exceed the amount which would have been payable under this contract if the same had been completed by the Contractor, the Contractor or his sureties shall pay the amount of such excess to the City; and should such expense be less than the amount payable under this contract had the same been competed by the Contractor, he shall receive the difference, after deducting the amount retained as hereinafter specified, but shall not be entitled to damages for not being allowed to complete the work himself.

In case of abandonment of the work by the contractor, or its termination by the City, the Director of Public Service shall at once cause the work already done under this contract to be measured. Five percent (5%) of the value of the amount thus shown will be set aside as a retainer under the provisions hereof. In such case no money, due or payable to the Contractor under this contract after the annulling of the same, shall be paid until the work is completed, accepted, and all claims and suits by reason of said work have been finally settled. The retained five percent (5%) shall be held for the full guaranty period, as specified herein and used as provided in other provisions hereof, for keeping in repair so much of the work as was done or completed under this contract.

(34) **Storing materials delivered on work:** All materials required in the work may be placed on the sides of the roadway, or parking area, or upon a portion of the sidewalk along the sides of the roadway to be improved and upon adjoining portions of intersecting streets, as directed by the Engineer; but all such materials shall be neatly and compactly piled in such a manner as to cause the least inconvenience to the property owners and the general public. All fire hydrants must at all times be kept free and unobstructed; water and gas shut off boxes must be left uncovered by such materials; and passageways must be left for store entrances, private driveways and street intersections.

No materials, tools or machinery shall be piled or placed against shade trees unless they be amply protected against injury therefrom, and all shade trees and other improvements must be protected from injury caused by the storing of materials or otherwise during the prosecution of the work.

All materials, tools, machinery, etc. stored upon public thoroughfares must be provided with red lights at night time, and danger signals by day, to warn the traffic of such obstructions.

(35) **Storage of materials, tools and machinery during suspension of work:** Upon the suspension, stoppage, or abandonment of the work, or any part thereof, all materials shall be neatly and compactly piled, and all tools and machinery so located as not to impede public traffic on roadways, sidewalks and crosswalks unnecessarily. All such stored materials, tools and machinery shall be provided with danger signals by day and red lights by night.

(36) **Ownership of old materials:** All old curbing, stone walk, paving brick, brick crosswalks, gutter paving bricks, gutter plates and culverts, sewer pipe, iron pipe and castings, are the property of the City and all such materials as are not ordered replaced, shall be removed by and at the expense of the Contractor, to such places as the Engineer may direct. If the Engineer chooses to not accept such materials, the Contractor must dispose of them at no cost to the City.

(37) **Plans, profiles, and specifications:** The plans, profiles and specifications are intended to be explanatory and supplementary of each other, but should any discrepancy appear or misunderstanding arise as to the import of anything contained in either, the explanation of the City shall be final and binding on the Contractor. Any correction of errors or omissions in the plans, profiles and specifications may be made when such corrections are necessary for the proper fulfillment of their intentions as construed by the City.

Any correction in the plans, drawings, and specifications made pursuant to the provisions of this paragraph shall not be retroactive, but shall take effect at the date of notification to the Contractor of such correction.

The City will furnish the Contractor with up to three (3) sets of additional copies of the plans (full size or half size, if available) as may be required, for the construction of the work herein specified.

(38) **Private rights of way:** Whenever it is required as a part of this contract to perform work within the limits of private property or private right of way, such work shall be done in conformity with the agreements between the City and such owners, and whether or not such a condition be a part of this agreement, care shall be taken to avoid injury to the premises entered, which premises must be left in a neat and orderly condition by the removal of rubbish and surplus materials and restoring vegetation to meet or exceed pre-contract condition.

(39) **Injunctions:** If legal obstructions to the prosecution of the work arise, the delay shall operate to extend the time allowed for the completion of the part or parts of the work obstructed, for the length of time obstruction continues and no longer, but no damages shall be claimed or allowed the Contractor for any such delay.

(40) **Attested accounts:** In case any person who has performed labor or has furnished materials, tools, or machinery for the work herein specified, he may file sworn itemized statement of the amount of value therein, as required by law, and if such claims be not disputed by the Contractor, or if the same are disputed, after the amount and validity have been determined by law, the City may pay the amount of such claims out of any money due the Contractor under this contract.

(41) **Claims for extra materials and work:** All claims for furnishing extra materials, or for doing extra work, for which the Contractor may consider himself entitled to receive extra compensation, must be presented to the Director of Public Service in writing, at the time the cause for such claim arises. Such statement must contain an itemized account of such materials and labor required, and unless such claim is so presented, it is expressly agreed, by the parties to this contract, that the Contractor has waived such claim, and that he shall not be entitled, subsequently to claim, or receive any pay for the same. No claim for extra labor and material shall be allowed, unless the necessity therefor has first been determined by the Director and the price to be paid therefor has been agreed upon, in writing, before such additional materials have been used, and such additional labor performed. See Change Order Policy in the Appendices for more information.

(42) **Claims for damage for omission or delays:** If any change or alteration involves the omission of any materials or work called for in the original plans and specifications, any claim for loss of profits, or any other cause growing out of any such omissions is hereby expressly waived by the Contractor.

No claims for prospective profits will be allowed, by reason of the inability of the City to proceed with all, or any part of the work provided for in this contract; nor for damages by reason of any delay on the part of the City, but any such delay shall entitle the Contractor to a corresponding extension of time for the completion of the work. See Claims Management Policy in the Appendices for more information.

(43) **Damages to property:** All damages to lawns, fences, trees, buildings, sidewalks, water, sewer or gas pipes, or other public or private property along or near the line of work, or the vicinity thereof, if the same are occasioned through neglect or failure on the part of the Contractor, or that of any person in his employ, to take all necessary precautions to prevent the same, must be replaced or made good by him, to the satisfaction of the owners of same and at his cost and expense whenever the Engineer may so direct.

(44) **Liability of contractor for injuries, patents, etc.:** It is expressly understood and is hereby agreed that the whole of the work to be done is at the Contractor's risk. The contractor assumes by bidding under these specifications, the full responsibility and risk of all damages to the work itself, the property along the line of the work, injury to persons or animals which may be occasioned by floods, stoppage of water in sewers or gutters, caving in of surface of grounds or trenches, neglect in properly protecting work by barricades, etc., or any manner whatsoever. He shall bear all losses resulting to him on account of character of the work, or because the nature of the ground in or on which the work is done, is different from what was estimated or expected, or as may have been indicated by borings or test pits, or on account of the weather, actions of the elements or other causes.

He shall assume the defense of any indemnity and save harmless the City and its individual officers and agents from all claims relating to labor and materials furnished for the work to inventions, patents and patent rights used in doing the work, to injuries to any person or corporation received or sustained by or from the Contractor and his agents and employees in doing the work, or in consequence of any improper materials, methods, implements or labor used therein, or by reason of any condition in the improvement created by the Contractor or for any other liability therefor.

The Contractor, if required at any time by the Director, shall furnish the City satisfactory evidence that all persons who have claims for labor performed or material furnished hereunder, or have suffered damages on account of his operations, have been fully paid or secured. And in case evidence be not furnished as aforesaid and such amounts as the Director may consider necessary to meet lawful claims of persons aforesaid, shall be retained from the monies otherwise due the Contractor hereunder, until the liabilities shall have been fully satisfied.

If the Contractor shall claim compensation for any damages sustained by reason of the

acts of the City, he shall within five (5) days after the sustaining of such damages, present a written statement to the City of the nature of the damage sustained. On or before the fifteenth day of the month succeeding that in which any such damage shall have been sustained, he shall file with the City an itemized statement of the details and amount of such damage, and unless such statement shall have been filed as thus required, his claim for compensation shall be forfeited and invalidated, and he shall not be entitled to any payment on account of such damage.

The statement 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 these specifications, said reference to any specific duty or liability being merely for the purpose of explanation.

(45) **Safety measures -- barricades:** The Contractor must provide and maintain barricades to properly protect persons, animals, vehicles and property against injury. He shall also provide, place and maintain sign boards, letter "STREET CLOSED" in plain legible type, upon the streets and alleys in which the work is in progress and upon each street and alley intersection therewith at a distance of one block therefrom, as may be directed by the Engineer.

(46) **Traffic regulations:** The Contractor is responsible for all traffic control on the project whether or not it is called out in the detailed specifications or plans. All traffic control must comply with appropriate City, State, and Federal rules, regulation, and guidelines. During the progress of the work, the Contractor shall accommodate both the vehicular and foot traffic and shall maintain free access to fire hydrants, water and gas valves. Gutters and water ways must be kept open and other provisions made for the removal of storm water.

During the construction of the sewer work and other ditches, only one-half of the street intersections may be blocked at one time and the Contractor shall provide and maintain temporary driveways, bridges, and crosswalks over sewer and other trenches, such as, in the opinion of the Engineer in charge of the work, are necessary to reasonably accommodate the public.

To accommodate pedestrians during the progress of the work, the Contractor shall provide and maintain crosswalks on that portion of the street being improved, both across the main roadway and at the street and alley intersections. The crosswalks shall be constructed of planks two (2) inches thick, and within the fire limits of the City, they shall be at least five (5) feet wide, and outside the fire limits at least three (3) feet wide.

When the City deems it advisable or necessary to divert traffic from the work or any portion thereof, the Contractor shall provide and maintain detour signs, letter "DETOUR" in plain and legible type, and indicating the direction to be taken by traffic as directed by the Engineer.

In the event of the Contractor's failure to comply with the above provisions relative to traffic regulations, the City may cause said provisions to be carried out and the cost and

expense of such work shall be deducted from any money due the Contractor under this contract, but the performance of any such work by the City, or at its insistence or request, shall in no way release the Contractor from his general or particular liability for the failure to provide for the safety of the public or the work under this contract.

The Contractor shall not place any material on any sidewalk so as to interfere with the free access to any crosswalk by pedestrians.

No additional compensation will be paid the Contractor by the provision and maintenance of bridges, crosswalks, etc., as above specified, but the cost and expense of maintaining the same shall be considered as part of the general contract and shall be included by the Contractor in the prices bid by him upon the several items as named upon the proposal therefor.

(47) **Hauling materials on paved streets:** During the progress of the work and in the cleaning up thereof, the Contractor shall provide and use vehicles in which the excavated or other materials are hauled over paved streets in the City, with tight bodies for transportation of fine materials and shall not overload the same so as to allow such materials to fall off the tops thereof upon the streets. The paved streets over which such material is hauled must be kept free from dirt and other materials in accordance with the provisions of City Ordinance regulating same.

(48) **Cleaning up during the progress and completion of work:** During the progress of the work the Contractor shall remove all surplus excavated materials, obstructions, old materials not used, trees, stumps, filth or rubbish of any kind that may be encountered in the execution of the work, at his own cost and expense except when the removal and transplanting of trees be specified and bids therefor are required upon the blank proposal attached thereto.

As fast as any portion of the work, such as the construction of sewers or drains not located in the street or streets to be improved under the contract is completed, the backfilling of trenches and the repaving over the same shall be done as soon as possible, as herein specified.

As fast as the roadway pavement is completed, the Contractor shall remove all rubbish and surplus materials which have accumulated during the progress of the work provided herein, from
the new or existing sewers, the roadway, sidewalk space and intersecting streets and shall render the streets suitable, safe and convenient for traffic.

Upon the completion of the improvement and before the final acceptance thereof, the Contractor shall remove all machinery, tools, temporary building and shall clean the pavement, curb and sidewalks in such a thorough and effective manner by hand sweeping, scraping or by flushing, according to kind of pavement or condition of the street, as will be determined by the Engineer, so as to leave the entire surface of the pavement, curbs and sidewalks so exposed that the quality and texture of the materials used and workmanship may be readily determined. He shall also remove all centering, scaffolding and

accumulations of sand, earth, materials, and rubbish of all kinds from the sewers, manholes, inlets, and catch basins. If the improvement is completed too late in the fall to permit all of the cleaning up as herein specified, that portion not completed shall be done the following spring within ten (10) days after written notice to do so from the Engineer.

All such cleaning and removal of cleanings shall be done by the Contractor and the cost and expense thereof shall be included in his price for furnishing of materials and laying of pavement.

In case the Contractor shall fail or neglect to do any cleaning within forty-eight (48) hours after the receipt of notice to do so, or in the manner specified, the Director of Public Service may and is hereby authorized to cause the same to be done and charge the cost and expense thereof to said Contractor and deduct the amount of such cost and expense from any estimate due him at any time thereafter.

(49) **Existing surface fixtures and structures:** At least forty-eight (48) hours before breaking ground, the Contractor shall notify all the City Departments and public service corporations, whose tracks, wires, pipes, conduit or other structures may be affected by his operations. He shall likewise notify the Chief of the Fire Department of the temporary blocking of any street.

Existing surface structures which may be encountered in the work shall be removed and replaced or maintained by the Contractor at his cost and expense, or by the parties interested, and in such a manner as to secure the safety of the public and structure. The use of pipes, conduits, etc. shall not be interrupted without the consent of the parties owning or controlling the same.

(50) **Existing sub-surface fixtures and structures:** Existing sub-surface structures encountered in the work shall be protected and maintained in complete operation, unless permission is given for their removal. Existing substructures, including old sewers, abandoned sewers, abandoned drains, etc., which may appear within the limits of the excavating, shall be removed, if required by the City, but such removal will not be paid for separately, except when expressly specified, being paid for in the price for excavation or other items including excavation.

In case the uncovering of sub-surface structures necessitates a change in the alignment of grade of the proposed work, the Contractor shall give immediate notice of such obstruction to the Engineer, and shall cease work at such points until ordered to proceed.

And in case any change of grade or alignment shall delay the work, the time allowed for the completion of the contract will be extended to the extent which the delay shall have operated, the decision of the Engineer upon this point being final.

(51) **City may construct sewers, drains, etc.:** The City reserves the right to suspend or stop the work on all or any part of the progressing improvement, for the purpose of laying, relaying or allowing to be laid, or re-laid, any sewers, drains, gas pipes, water pipes, conduits or appurtenances thereto, which, in the opinion of the Director of Public Service are

necessary or expedient, or for any other reason, and at any stage of the work, and the Contractor shall not interfere with or place any impediment in the way of any person or persons engaged in such work; and in such cases the Contractor shall not be entitled to any damages or recompense, either for digging up the street, or delay or hindrance, but the time of completion shall be extended as many days as the delay shall have operated.

It is the intention of the City to require all property owners to have water and sewer connections made to all lots, and to cause to be laid all water mains, gas mains, sewers and sewer connections, and other pipes, conduits, etc., not included in the contract hereunder, in advance of the improvement, except when in the opinion of the Director of Public Service such procedure be impracticable and the Contractor shall not be entitled to damages or recompense by reason of delay or hindrance, but he shall be granted an extension of time equal to that in which the delay shall have operated, as determined by the Director of Public Service.

If the Contractor hereunder finds that the trenches are not properly backfilled, he shall so notify the Engineer in writing, allowing ample time to have the defects remedied before proceeding with the improvement.

The Contractor may exercise the right to such supervision of the work, as he may deem necessary to insure good material and workmanship, in order that he may properly protect himself from defects in the finished pavement for which he will be responsible under his guaranty. The Contractor will be allowed and paid for any additional materials, the use of which is made necessary on his part by reason of the above specified work, such reasonable sum (not to exceed contract price) as may be agreed upon in writing between himself and the Director before such additional materials be used, and in the manner specified for subsidiary contracts.

(52) **Special repairs:** The City reserves the right, whenever in its judgment, to take up or permit the taking up of any part of the improvement during the progress of the work, or subsequent to the completion thereof and during the period of guaranty for the purpose of constructing, repairing, or renewal of any sewers, drains, water or gas pipes, or other improvements. Whenever any part of the improvement is taken up as herein specified, all the work of restoring the same will be done by or under the direction of the City and the Contractor hereunder will be relieved of any maintenance requirements on that portion of the completed improvement so disturbed.

(53) **Use of city water supply:** The City will furnish water at the hydrants for the purpose of puddling trenches, construction purposes, operation of machinery, mixing concrete, mortar, etc., but the cost of water and the proper facilities for conveying the same from the hydrants must be included by the Contractor in the unit prices bid for the various items of work wherein water will be used. All water used must pass through meters installed by the Water Department at its hydrants and subject to its regulation and paid for at the builder's rate per one thousand (1,000) cubic feet of water consumed, as established by said Department, plus the cost of meters and installation of same. A deposit will be required covering the cost of meter and installation thereof, which deposit of cost of meter will be refunded on return of meter in good condition.

The Contractor must notify the Water Department at least forty-eight (48) hours in advance of the time such installation is required.

(54) **Use of sewer:** At any time during the progress of the work the City may, by written notice to the Contractor, take over and utilize the whole or part of any sewer, drain or appurtenance thereof which has been completed, giving if desired, permits to tap and connect therewith. In such event, the Contractor shall be relieved from the maintenance of such part as may be used except as provided under the section "Guaranty" and such will be deemed as final acceptance by the City of the part or parts used, subject to the responsibility of the Contractor for all defects in workmanship, etc., as provided under the "Guaranty" section of these specifications.

(55) **Sanitary regulations:** Necessary sanitary conveniences for the use of the laborers on the work, properly secluded from public observation, shall be constructed and maintained in a sanitary condition by the Contractor in such manner and at such points as shall be approved, and their use shall be strictly enforced.

(56) **OSHA standards:** It is the City's requirement, under OSHA Regulations, that all outside contractors hired by the City of Canton are and will be in full compliance with all OSHA standards and perform said work in accordance with all applicable OSHA standards.

(57) **Laws and ordinances:** The Contractor shall keep himself fully informed of all laws, municipal ordinances and regulations that in any manner affect the persons engaged in or employed upon the work, or the materials used in the work, or any way affecting the conduct of the work, and of the decrees of the bodies or tribunals having jurisdiction or authority over the same. He shall also himself observe and comply with and shall cause all of his agents and employees to observe and comply with all such existing and subsequent laws and ordinances, regulations, orders and decrees, and to protect and indemnify the City against claim or liability arising from or based upon the violation of such laws, ordinances, regulations, orders or decrees by himself or by his agents or employees.

References to special laws and ordinances in other sections of this contract shall in no way relieve the Contractor from compliance with all the provisions of this section.

(58) **Monuments and landmarks:** The Contractor shall preserve intact all City monuments, benchmarks and landmarks, as shown upon the plans or encountered in the excavation. In such case that such monument, benchmark or landmark not shown on the drawings be encountered in opening the excavation, the Contractor shall stop work at such point, immediately notify the Engineer of such findings and not disturb same until directed to do so by the Engineer.

(59) **Prices:** The City shall pay and the Contractor shall receive the prices hereafter stipulated as full compensation for everything furnished and done by the Contractor under this contract. This shall include all incidental work required but not specifically mentioned, and also for all loss or damage arising out of the nature of the work, or from the action of the weather, floods, or from unforeseen obstruction or difficulty encountered in the prosecution of the work, and for the expenses incurred by or in consequence of the suspension or

discontinuance of the work as herein specified, and for well and faithfully completing the work and the whole thereof, as herein provided, together with the remedying of all defects developing during the prosecution of the work and during the period for which the work is guaranteed.

(60) **Starting and completing the work:** The Contractor shall not start the work embraced in this contract before the date of a written notification from the Engineer, and shall commence at such points as the City may direct.

If the work done under this contract conflicts with other work done for or by the City, or with its consent, the City shall determine the time and manner of procedure of the operations carried on under this contract.

The number of days allowed for the completion of the work embraced in this contract shall be 65 standard schedule working days from the Notice to Proceed date.

(61) **Defaulted provisions for delay:** The Contractor guarantees that he can and will complete the work on or before the time affixed in his bid, or on or before the extended time as provided for in the contract. The payment to the City for such delay and failure on the part of the Contractor shall be defaulted in the amount of One-thousand Dollars ($1000.00) for each day by which the Contractor shall fail to complete the work, or any part thereof, in accordance with the provisions of the contract. The City will deduct and retain, from any money due or any money to become due under the contract, the amount of the liquidated damages. The Contractor shall be liable for the payment of the difference upon demand of the City.

(62) **Samples:** Each bidder shall submit samples of materials, or refer to samples of materials furnished by the Manufacturer or Producer, at the time of submitting the bid, as required in detail specifications under each item, for which bids are received. Whenever samples of any material or workmanship have been filed by the Contractor, or are on file as specimen of the work to be done or materials to be furnished for the work herein specified, such samples shall be the standard by which that kind and class of work shall be judged.

(63) **Measurements:** No extra or customary measurements of any kind, unless specially noted, will be allowed in measuring the work under these specifications; but the length, area, solid contents or number only, shall be considered as a basis for payment as hereinafter specified.

The measurements as made by the City of the amount of the work done shall be final and conclusive.

Payments will be made upon the work done within the lines prescribed by the plans, drawings or specifications, and in accordance with the unit prices for the items under which the work is done, and nothing therein contained shall be so construed as to deprive the City of any remedy or defense it may have under the same, for violation of the terms or conditions of this agreement.

(64) **Partial payments:** The Contractor shall, on a day of each calendar month as is

mutually agreeable to the Contractor and the City, make an approximate estimate of the quantities and prices of the labor furnished and the materials incorporated into the project during the previous calendar month and forward such estimate to the Engineer for approval. More frequent estimate submission, at the option of the City, may be made at any time during the progress of the project.

Partial payments to the Contractor for work performed for a lump sum price shall be based on a well-balanced schedule prepared by the Contractor and approved by the Engineer which schedule shall apportion the lump sum price to the principal features entering into or forming a part of the work covered thereby.

Partial payments to the Contractor for labor performed and materials furnished shall be made at the rate of ninety-two (92) percent of the estimate submitted by the Contractor and approved by the Engineer until the project is fifty (50) percent completed. The reimbursement rate will be one hundred (100) percent of such estimates after the project is fifty (50) percent completed. **The City will not make payment for materials stored on site.**

The City shall pay the Contractor monthly, not less than the difference between the amount of each monthly estimate which has been approved by the Engineer and the sum of Retainage stipulated below and any other amounts which the City is authorized by the contract to withhold. The making of any monthly payment shall not be taken or construed as approval or acceptance by the City of any work included in the estimate upon which such payment is based.

If the City fails to make payment within sixty (60) days after approval by the Engineer, in addition to other remedies available to the Contractor, there shall be added to each such payment interest at the average of the prime rate established at the commercial banks in the city of over one hundred thousand population nearest the construction project, commencing on the first day after said payment is due and continuing until the payment is received by the Contractor.

To aid in determining quantities of materials for pay, the Contractor shall, whenever requested by the Engineer, provide scales, equipment and assistance for weighing or for measuring such materials.

For estimating quantities in which computation of areas by geometric methods would be comparatively laborious, the City agrees that a planimeter or other agreed upon method may be used.

(65) (66) **Pre-final and final estimates and payments:** As soon as practicable after the completion of work under the contract, the Engineer will perform a formal inspection of the project. If the project appears to be acceptable, the Engineer will recommend tentative acceptance thereof and make a pre-final estimate of the amount of the work done by the Contractor based on quantities and prices submitted by the Contractor. Upon such certified pre-final estimate, the City will pay the Contractor all of the monies owing him under the contract, except the Retainage, which the City will hold for sixty-day (60) period after the

date of the pre-final estimate.

Upon the expiration of such sixty (60)-day period, provided that it appears upon further inspection and certification by the Engineer that the contract has been faithfully performed, the City will pay to the Contractor the whole sum retained or such part thereof as remains after deducting expenses of correcting any deficiencies in the work as determined by the Engineer. Such final inspection and payment will not discharge the liability of the Contractor under the contract or of the surety under the contract bond, but such liabilities and all guarantees shall remain in effect for the period fixed by law.

(67) **Additional contract:** It must be distinctly understood that should more than one contract be awarded to the same Contractor, he may be required to prosecute the work upon all of them at one and the same time. At the option of the Director, and he shall not be permitted to transfer men, tools, or machinery from one job to another without the consent of the Engineer. The contractor shall at all times have a competent foreman and a sufficient number of men, tools, and machinery upon each job, at the same time, as well, in the opinion of the Engineer, be sufficient for the proper prosecution of the work.

(68) **Insurance:** The Contractor shall at all times during the progress of the work, comply with all the provisions of the laws of Ohio relating to workmen's compensation and State insurance fund for the benefit of injured and the dependents of killed employees. The Contractor shall at all times during the progress of the work carry accident liability insurance in an amount sufficient to reasonably indemnify himself against loss from claims for personal injuries or fatal accidents occurring upon the work or caused thereby including injuries and accidents to employees of the Contractor, persons engaged on the work under another contractor, employees of any sub-contractor or other engaged on or about the work and the public. The City reserves the right to annul this contract at any time upon receiving evidence of the Contractor's failure to comply with the statutes as described above.

(69) **Last payment to terminate liability of City:** No person or corporation, other than the signer of this contract as Contractor, has now any interest hereunder, and no claim shall be made or be valid, and neither the City nor its agents shall be liable for, or be held to pay any money, except that provided in this contract. The acceptance by the Contractor of the last payment made as aforesaid shall operate as and shall be a release to the City and agents thereof, from all claims and liability to the Contractor for anything done or furnished for, or relating to the work, or for any act or neglect of the City or of any person relating to or affecting the work, except the claim against the City for the remainder, if there be any, of the amount kept or retained.

(70) **Guaranty:** The Contractor, for and in consideration of the monies received and to be received by him, hereby agrees that the repairs of all defects in the work done and completed under this contract arising, in the opinion of the Director, out of the use of defective materials, settlements of sewers, structures, and foundations or improper workmanship in the construction thereof, and which repairs from such causes may become necessary during the period of years, as set forth below, after the date of the approval by the Director of the Engineer's certificate of the "FINAL COST", shall be made by him without cost and expense to the City, and the Contractor agrees to make such repairs when, and as ordered by the

Director, by written notice served upon him and if after having received such notice, the Contractor fails to make such repairs within the number of days stated in such notice, from the date of receipt thereof, the Director shall thereupon have the power to cause said repairs to be made and charge the cost and expense thereof to the Contractor or his surety.

The failure of the Director to give notice within the specified period shall not preclude the operation of this section.

The guaranty periods referred to above in this section shall be as follows:

C.I.P.P. Rehabilitated Sewers, 2 years

Concrete curbing, 1 year

Concrete sidewalks, 1 year

Concrete masonry, 1 year

Brick masonry, 1 year

Sewers, manholes, catch basins, 1 year

Asphaltic concrete pavement, 1 year

Concrete foundation, 1 year

(71) **No estoppel:** The City shall not be precluded or estopped by any return or certificate made or given it, from showing at any time, either before or after the final completion and acceptance of the work and payment therefor pursuant to any such return or certificate, the true and correct amount and character of the work done and materials furnished by the Contractor or any other person under this agreement, or from showing at any time that any such return or certificate is untrue and incorrect or improperly made in any particular, or that the work and materials, or any part thereof, do not in fact conform to the specifications; and the City shall not be precluded or estopped, notwithstanding any such return or certificate and payment in accordance therewith, from demanding and recovering from the Contractor such damages as it may sustain by reason of his failure to comply with the specifications.

Neither the acceptance by the City, nor any order, measurement, or certificate, by the City, nor any order for payment of money, nor any payment for, nor acceptance of the whole or any part of the work by the City, nor any extension of time, nor any possession taken by the City, or its employees, shall operate as a waiver of any portion of this contract or of any power herein reversed to the City, or any rights to damages herein provided; nor shall any waiver of any breach of this contract be held to be a waiver of any other or subsequent breach.

(72) **Deleted**

SECTION 01 14 16

COORDINATION WITH OWNER'S OPERATIONS

PART 1 – GENERAL

1.1 DESCRIPTION

A. Scope:
   1. This Section includes requirements for coordinating with CITY's operations during the Work, and includes requirements for shutdowns, when approved, necessary to complete the Work without impact on CITY's operations except as allowed in this Section.
   2. CONTRACTOR shall provide labor, materials, tools, equipment and incidentals shown, specified and required to coordinate with CITY's operations during the Work.

B. Coordination:
   1. Review installation procedures under other Specification sections and coordinate Work that must be performed with or before the Work specified in this Section.

C. Related Sections:
   1. Section 01 51 41, Temporary Pumping.
   2. Section 01 73 29, Cutting and Patching.
   2. Section 01 73 24, Connections to Existing Facilities.

D. Perform the Work such that CITY's facility remains in continuous satisfactory operation during the Project. Schedule and conduct the Work such that the Work does not: impede CITY's production or processes, create potential hazards to operating equipment and personnel.

E. Work not specifically covered in this Section or in referenced Sections may, in general, be completed at any time during regular working hours in accordance with the Contract Documents, subject to the requirements in this Section.

F. CONTRACTOR has the option of providing additional temporary facilities that can eliminate or mitigate a constraint without additional cost to CITY, provided such additional temporary facilities: do not present hazards to the public, personnel, structures, and equipment; that such additional temporary facilities do not adversely affect CITY's ability to comply with Laws and Regulations, permits, and operating requirements; that such temporary facilities do not generate or foster the generation of odors and other nuisances; and that requirements of the Contract Documents are fulfilled.

G. Requirements for temporary pumping are in Section 01 51 41, Temporary Pumping.

1.2 SUBMITTALS - NOT USED

1.3 GENERAL CONSTRAINTS

A. The following constraints apply to coordination with CITY's operations:
   1. Operational Access: CITY'S personnel shall have access to equipment and areas that remain in operation.

1.4 SEQUENCE OF WORK

A. Perform the Work in the approved Progress Schedule. Certain phases or stages of the Work may require working 24-hour days or work during hours outside of regular working hours. Work may be accelerated from a later stage to an earlier stage if CITY's operations are not adversely affected by proposed sequence change, with ENGINEER's acceptance.

1.5 SHUTDOWNS

A. General:
   1. Terminology: A "shutdown" is when a portion of the normal operation of CITY's facility, whether equipment, systems, piping, or conduit, has to be temporarily suspended or taken out of service to perform the Work.
   2. There are NO scheduled shutdowns for this project. If the CONTRACTOR determines a shutdown is necessary for successful completion of the project. The CONTRACTOR shall submit a detailed Action Plan of how the shutdown shall be performed for review and approval by the ENGINEER and CITY, at a minimum of seven days prior to the proposed shutdown. All additional labor, labor and equipment costs necessary for a proposed shutdown shall be the sole responsibility of the CONTRACTOR.
   3. Work that may interrupt normal operations shall be accomplished at times convenient to CITY.
   3. Furnish at the Site, in close proximity to the shutdown and tie-in work areas, tools, equipment, spare parts and materials, both temporary and permanent, necessary to successfully complete the shutdown. Complete to the extent possible, prefabrication of piping and other assemblies prior to the associated shutdown. Demonstrate to ENGINEER's satisfaction that CONTRACTOR has complied with these requirements before commencing the shutdown.
   4. If CONTRACTOR's operations cause an unscheduled interruption of CITY's operations, immediately re-establish satisfactory operation for CITY.

   5. Unscheduled shutdowns or interruptions of continued safe and satisfactory operation of CITY's facilities that result in fines or penalties by authorities having jurisdiction shall be paid solely by CONTRACTOR if, in ENGINEER's opinion, CONTRACTOR did not conform to the requirements of the Contract Documents, or was negligent in the Work, or did not exercise proper precautions in conducting the Work.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.1 GENERAL

A. In addition to requirements of this Section, conform to requirements of Section 01 73 29, Cutting and Patching, and Section 01 73 24, Connections to Existing Facilities.

+ + END OF SECTION + +

SECTION 01 45 29.13

TESTING LABORATORY SERVICES FURNISHED BY CONTRACTOR

PART 1 – GENERAL

1.1 DESCRIPTION

A. Scope:
   1. CONTRACTOR shall employ and pay for services of independent testing laboratory to perform specified services.
   2. Inspection, sampling, and testing shall be as specified in the Specifications including but not limited to:
      a. Section 03 30 00, Cast-in-Place Concrete.
      b. Section 03 60 00, Grouting.
   3. CONTRACTOR shall pay for:
      a. Tests not specifically indicated in the Contract Documents as being CITY's responsibility.
      b. Tests made for CONTRACTOR's convenience.
      c. Repeat tests required because of CONTRACTOR's negligence or defective Work, and retesting after failure of test for the same item to comply with the Contract Documents.
   4. Testing laboratory is not authorized to approve or accept any portion of the Work or defective Work; rescind, alter, or augment requirements of Contract Documents; and perform duties of CONTRACTOR.

1.2 REFERENCES

A. Standards referenced in this Section are:
   1. ASTM E329, Specification for Agencies Engaged in Construction Inspection and/or Testing.
   2. ISO/IEC 17025, General Requirements for the Competence of Testing and Calibration Laboratories.
   3. NIST SRM, Standard Reference Materials.

1.3 QUALITY ASSURANCE

A. Qualifications:
   1. Testing Laboratory:
      a. Comply with applicable requirements of ASTM E329.
      b. Testing laboratory shall be licensed to operate in the same state as the Site. Where applicable, laboratory shall be certified by the authority having jurisdiction for the types of testing required.

c. Testing equipment used by laboratory shall be calibrated at maximum intervals of twelve months by devices of accuracy traceable to one of the following: NIST SRM, ISO/IEC 17025, certified by state or local bureau of weights and measures, or values of natural physical constants generally accepted in the engineering and scientific community.

1.4 SUBMITTALS

A. Informational Submittals: Submit the following:
   1. Quality Control Submittals and Test Reports: Testing laboratory shall promptly submit to CONTRACTOR results of testing and inspections, including:
      a. Date issued.
      b. Project title, number, and name of the Site.
      c. Testing laboratory name and address.
      d. Name and signature of inspector or person obtaining samples.
      e. Date of inspection or sampling.
      f. Record of temperature and weather.
      g. Date of test.
      h. Identification of material or product tested, and associated Specification Section.
      i. Location in the Project.
      j. Type of inspection or test.
      k. Results of tests and observations regarding compliance with the Contract Documents.
   2. Qualifications Statements:
      a. Testing Laboratory:
         1) Qualifications statement indicating experience and facilities for tests required under the Contract Documents.
         2) Copy of report of inspection of facilities during most recent NIST inspection tour. Include memorandum of remedies of deficiencies reported during inspection.
         3) Copy of certificate of calibration for each instrument or measuring device proposed for use, by accredited calibration agency.

1.5 TESTING LABORATORY DUTIES

A. Testing laboratory shall:
   1. Cooperate with CONTRACTOR and provide qualified personnel promptly on notice.
   2. Perform required inspections, sampling, and testing of materials and methods of construction; comply with applicable reference standards and the Contract Documents; and ascertain compliance with requirements of the Contract Documents.
   3. Promptly notify ENGINEER and CONTRACTOR of irregularities or deficiencies in the Work that are observed during performance of services.
   4. Promptly submit to CONTRACTOR copies of reports of inspections and tests.

5. Perform additional tests and services, as required by CONTRACTOR.

1.6 CONTRACTOR'S RESPONSIBILITIES

A. CONTRACTOR shall:
   1. Cooperate with testing laboratory personnel.
   2. Provide to testing laboratory preliminary representative samples of materials and products to be tested, in required quantities.
   3. Promptly submit to ENGINEER copies of results of tests and inspections received from testing laboratory.
   4. Provide to laboratory the preliminary design mix proposed for concrete and other material mixes to be tested by testing laboratory.
   5. Provide labor and facilities:
      a. For access to the Work to be tested, and where required, to Suppliers' operations.
      b. For obtaining and handling samples at the Site.
      c. For facilitating inspections and tests.
      d. For testing laboratory's exclusive use for storing and curing of test samples.
      e. Forms for preparing concrete test beams and cylinders.
   6. Notify laboratory and ENGINEER sufficiently in advance of operations to allow assignment of personnel and scheduling of tests.
   7. Arrange with laboratory and pay for additional services, sampling, and testing required for CONTRACTOR's convenience.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

+ + END OF SECTION + +

SECTION 01 51 41

TEMPORARY PUMPING

PART 1 – GENERAL

1.1 DESCRIPTION

A. Scope:

1. CONTRACTOR shall provide labor, materials, tools, equipment and incidentals shown, specified and required for temporary pumping and handling of fluids during the Work.
2. Design and provide temporary pumping systems, including plugs, bulkheads, and line stops as required; pumps; piping, supports, and valves; temporary instrumentation and control system; fuel and electricity as required; personnel; and appurtenances. Conform to Laws and Regulations and requirements of authorities having jurisdiction. System shall be suitable for its service and operating environment.
3. Capacity, General:
   a. Provide the temporary pumping system of required capacity with at least one of the largest pumps out of service.
   b. Pay costs associated with repairing damage to property, including cleaning costs, caused by undersized or inadequate temporary pumping system.
   c. ENGINEER's acceptance of temporary pumping submittals does not relieve CONTRACTOR from responsibility for the temporary pumping system in accordance with the Contract Documents.
4. Temporary Pumping Capacity for Larger Sewers:
   a. Required capacity of temporary pumping system shall be determined by CONTRACTOR.
   b. Temporary pumping system shall be adequate to pump the discharge rate conveyed through the permanent conduit. Temporary pumping system shall not result in flow back-ups into buildings and structures, overflows to storm sewers or receiving waters, and adverse effects on CITY's system.
   c. Basis of capacity of temporary pumping system shall consider flow metering data if available, results of system hydraulic modeling if available, sewer inspection video and associated data, capacity of the pipe or conduit temporarily removed from service, whether system experiences surcharges during high-flow events, nature of drainage area tributary to the pipe or conduit temporary removed from service, weather, and other factors.
5. Location of temporary pumping system shall not affect CITY's operations, public access to streets and drives, or access to private property, unless approved by authorities having jurisdiction.

6. Provide electricity and fuel as required for temporary pumping systems. Secondary containment for fuel tanks shall be in accordance with Laws and Regulations.
7. Obtain ENGINEER's acceptance of each temporary pumping system. Temporary pumping systems for which ENGINEER's acceptance is not obtained in advance will not be eligible for payment.
8. Leakage from temporary pumping systems or improper discharge are not allowed.

B. Coordination:
   1. Review installation procedures under other Sections and coordinate Work that must be performed with or before Work specified in this Section.
   2. Provide written notification delivered to occupants of each property affected by temporary pumping. Written notices shall be provided thirty days, seven days, and one day prior to starting temporary pumping and shall include estimated start and end days and times that permanent pipe or conduit will be temporarily out of service and instructions for property owners during the outage.

1.2 QUALITYASSURANCE

A. Qualifications:
   1. Temporary pumping system Supplier shall have at least five years of experience providing temporary pumping systems, and shall submit documentation of furnishing at least five temporary pumping systems on other projects similar in size and service to the temporary pumping system required for the Project.

B. Component Supply and Compatibility: Obtain each temporary pumping system from a single Supplier who shall be responsible for providing a complete system.

1.3 SUBMITTALS

A. Timing: Furnish submittals for temporary pumping system to ENGINEER at least 45 days prior to delivery of temporary pumping system to the Site.

B. Informational Submittals: Submit the following:
   1. Draft Notification Letter: Provide preliminary copy of notification letters for property occupants.
   2. Schedule: Provide schedule for temporary pumping for each work area. Include dates of mobilizing, testing, starting and ending dates of temporary pumping, and demobilizing each temporary pumping system in each work area. Update and resubmit schedule as required.
   3. Temporary Pumping Submittal: Submit the following for each temporary pumping system:
      a. Basis for the capacity of the system proposed.

b. Manufacturer's data and specifications on each type and size of pump proposed and its capacity, including pump curves. Provide manufacturer's data and specifications for generators and other equipment required for temporary pumping system.

c. Technical information and specifications on noise controls for noise-generating equipment.

d. Technical data on temporary piping, pipe joints, valves, pipe supports, controls, flow meter, secondary containment for fuel tanks, and other information pertinent to the temporary pumping system.

e. Layout Drawings:

1) Sketches showing proposed layout of temporary pumping system, including locations of temporary plugs, bulkheads, and line stops, suction and discharge locations, location of the pumps and associated piping and valves, and source of power for temporary pumping system. Sketches shall be scale drawings acceptable to ENGINEER, and shall include site plans similar to those in the Contract Documents.

2) Details of system suction and discharge locations. Discharge details shall include measures to protect the receiving structure and dissipate energy.

3) Where it is necessary to bury temporary lines, submit trench details for buried temporary lines, including temporary surfacing proposed for traveled areas. Submit sketches and information on other types of protection proposed for temporary piping.

f. System curve of flow plotted against total dynamic head, and calculations that substantiate the proposed temporary pumping system, including comparison of net positive suction head required and net positive suction head available.

g. Temporary Plugs and Bulkheads: Manufacturer's literature and fabrication drawings showing type of plug or bulkhead, as applicable, materials, and hydrostatic head the plug or bulkhead is designed to withstand.

h. Narrative on temporary pumping system operation, including who will operate system, staffing, planned frequency of fueling, contingency plan in event of pump failure, and statement of existing systems that may be affected during operation of temporary pumping system.

4. Qualifications Statements: Qualifications of temporary pumping system Supplier.

PART 2 – PRODUCTS

2.1 TEMPORARY PUMPING SYSTEM

A. General:

1. System components shall be suitable for continuous operation with the fluid pumped.

2. Provide noise controls for temporary pumping system. Noise emissions from temporary pumping system shall conform to Laws and Regulations and shall not exceed 70 db at a distance of thirty feet from noise source.

B. Instrumentation and Controls:
   1. Controls: Provide controls for temporary pumping system to maintain suction structure liquid level that does not result in flow backups and that does not adversely affect CITY's system and private property.

C. Temporary Piping System:
   1. Piping shall be steel, ductile iron, high density polyethylene, or other material accepted by ENGINEER and suitable for system operating pressures. Aluminum piping and PVC piping not mechanically restrained are not allowed. Hoses can be used only for short sections upon acceptance by ENGINEER.
   2. Piping system shall have watertight joints of the following types: fused joints, restrained couplings, flanged coupling adapters, quick-connects by Camlok or equal, flanged joints, grooved and shouldered end-type couplings, and other watertight joints accepted by ENGINEER.
   3. Size discharge piping for maximum flow velocity of 10 feet per second.
   4. Provide check valves or pump control valves as required.
   5. Provide air valves on discharge piping as required. Air valves shall expel air upon pipe filling and admit air upon pipe dewatering, and release small amounts of entrained air during operation. Air valves shall be suitable for service with the pumped fluid.
   6. Discharge from temporary pumping system shall not adversely affect collection system structures, pipe or conduits, CITY's operations, private property, and shall not result in flow backups, flooding, or damage. Provide energy dissipating measures at discharge point as required.

D. Temporary Plugs, and Bulkheads:
   1. Acceptable temporary plugs and bulkheads include inflatable dams specifically designed for such service, brick bulkheads, timber bulkheads, sandbags, and other bulkhead methods suitable for the service.
   2. Each plug, and temporary bulkhead shall be suitable for the maximum pressure encountered.
   3. Where temporary plugs and bulkheads are under pressure or surcharged, provide either two plugs or a plug and temporary bulkhead.

PART 3 – EXECUTION

3.1 PREPARATION

A. General:
   1. Provide written notification delivered to owners and occupant of each property affected by temporary pumping.

2. Temporary piping shall be located off of roads, driveways, and sidewalks. Piping shall not be located in environmentally sensitive areas such as wetlands.

3 Where necessary, as approved by ENGINEER, bury temporary piping that would otherwise inhibit access to buildings, streets, and driveways. In paved areas, provide temporary surfacing, sufficient for AASHTO H-20 wheel loads over buried temporary piping.

4. Perform successful hydrostatic testing of temporary piping system using clean water at pressure equal to 1.2 times highest expected system operating pressure, for 30 minutes while maintaining test pressure within 3.0 psi of required test pressure. ENGINEER will witness hydrostatic test. Hydrostatic test criteria for acceptance: No leakage.

5. Verify that entire temporary pumping system is ready for operation before commencing temporary pumping. Verify that controls and flow meter are properly connected and functional.

3.2 TEMPORARY PUMPING

A. During Operation of the Temporary Pumping System:

1. Temporary pumping system shall operate continuously. In the event of equipment failure, immediately make repairs or replace equipment. Provide spare parts and redundant units as necessary for continuous operation.
2. Provide personnel to monitor, operate, and maintain temporary pumping system twenty-four hours per day when system is in service.

3.3 DEMOBILIZATION

A. Upon Conclusion of Temporary Pumping:

1. Remove plugs, bulkheads, and line stops in manner that allows flow to slowly return to normal, without surging, surcharging, and adverse effects on existing system.
2. Flush out temporary pumping system with clean water discharged to an appropriate location.
3. Remove temporary pumping system and appurtenances from the Site.

+ + END OF SECTION + +

SECTION 01 57 05

TEMPORARY CONTROLS

PART 1 – GENERAL

1.1 DESCRIPTION

A. Scope:

1. CONTRACTOR shall provide and maintain methods, equipment, and temporary construction as required to control environmental conditions at the Site and adjacent areas.
2. Maintain controls until no longer required.
3. Temporary controls include, but are not limited to, the following:
   a. Erosion and sediment controls.
   b. Noise controls.
   c. Dust control.
   d. Pest and rodent control.
   e. Control of water, including storm water runoff.
   f. Pollution control.

1.2 SUBMITTALS

A. Action Submittals: Submit the following:
   1. Shop Drawings:
      a. Plan for construction staging and maintenance of the Site relative to erosion and sediment controls. Indicate on a Site plan approximate areas of planned disturbance of soils and soil cove over time during the Project. For areas not indicated in the Contract Documents as being disturbed and that CONTRACTOR proposes to disturb, Shop Drawing shall include proposed erosion and sediment control measures for the additional area.
      b. Location and details of temporary settlement basin(s).
   2. Product Data:
      a. Silt fencing materials.

B. Informational Submittals: Submit the following:
   1. Procedural Submittals:
      a. Proposed dust control measures, when submittal is requested by ENGINEER.

PART 2 – PRODUCTS

2.1 MATERIALS FOR TEMPORARY EROSION AND SEDIMENT CONTROLS

A. General:
   1. Materials utilized for erosion and sediment controls shall be in accordance with the applicable regulatory requirements indicated in Article 1.2 of this Section, unless otherwise shown or indicated in the Contract Documents.

B. Silt Fencing:
   1. Filter Cloth:
      a. Mirafi Envirofence, or equal.
      b. Height: Two feet, minimum.
      c. Securely fasten filter cloth to wire mesh using ties spaced at maximum intervals of two feet on centers at top and mid-height of wire mesh.
   2. Wire Mesh: Support filter cloth with wire mesh complying with the following:
      a. Woven wire mesh, 14-gauge steel wire, maximum mesh size six-inch by six-inch.
      b. Height: To match filter cloth height.
      c. Fasten wire mesh to fence supports with wire ties or staples.
   3. Fence Support Posts:
      a. Length: Three feet, minimum.
      a. Material: Metal or other acceptable material with "U" or "I" cross section, or minimum 1.25-inch by 1.25-inch hardwood.

C. Straw Bale Dike.
   1. Bales shall be firmly-packed, unrotted straw bound firmly with baling wire. Cross-sectional area on the small end of each bale shall be approximately 12 inches by 12 inches or larger.
   2. Posts shall comply with requirements for silt fencing support posts, or may be suitable reinforcing steel.

D. Mulch Materials and Soil Stabilization.
   1. Mulch shall be unrotted straw or salt hay.
   2. Soil stabilization emulsions, when used, shall be an inert, eco-friendly chemical manufactured for the specific purpose of erosion control and soil stabilization, applied with mulch or stabilization fibers.
   3. Wood-fiber or paper-fiber, when used, shall be 100 percent natural and biodegradable.
   4. Erosion control mat or netting shall be biodegradable. Acceptable materials include jute, excelsior, straw or coconut fiber, and cotton.

E. Protection of Storm Water Drainage Inlets and Catch Basins:
   1. Inlet Filter Bag:

a. Product and Manufacturer: Provide one of the following for each drainage inlet or catch basin to be protected:
   1) Silt Sack, by Atlantic Construction Fabrics (ACF) Environmental
   2) Or equal.
b. Inlet filter bag permeability shall be not less than 40 gallons per square foot of bag area exposed to the flow. Fabric shall be woven polypropylene with double stitching to prevent bursting.
c. Inlet filter bags shall fit inside the drainage inlet or catch basin and shall be secured by the structure's grate or by other acceptable means.
d. Inlet filter bags shall have means of removing inlet filter bag and the silt and sediment collected in the bag, without dumping filter bag's contents into the drainage inlet or catch basin.

F. Temporary Settlement Basin.
   1. Embankment Material: Comply with requirements for general fill in Division 31 Sections on earthwork, excavation, and fill.
   2. Provide outfall structure consisting of overflow weir and discharge pipe, and provide emergency spillway.
   2. Overflow Weir and Discharge Pipe: Suitably-sized piping of corrugated metal, high-density polyethylene, or other suitable material. Pipe may be new or used; if used, pipe shall be in good condition.

G. Filter Bag on Dewatering Pump Discharge:
   1. Provide filter bag on discharge of each dewatering pump drawing from an excavation. Filter bag is not required on pumps associated with dewatering wells.
   2. Products and Manufacturers: Provide one of the following:
      a. UltraTech Dewatering Bag, by Interstate Products.
      b. Filter Bag, by US Fabrics.
      c. Dewatering (Filter) Bag, Indian Valley Industries.
      d. DirtBag, by Atlantic Construction Fabrics (ACF) Environmental
      e. Or equal.
   3. Size filter bags for maximum flow of the pump. Filter bags shall be specifically fabricated for use as a dewatering pump filter bag.
   4. Provide sufficient spare filter bags for continuous dewatering operations.

PART 3 – EXECUTION

3.1 NOISE CONTROL

A. Noise Control – General:
   1. CONTRACTOR's vehicles and equipment shall minimize noise emissions to greatest degree practicable. Provide mufflers, silencers, and sound barriers when necessary.

2. Noise levels shall comply with Laws and Regulations, including OSHA requirements and local ordinances.
3. Noise emissions shall not interfere with the work of CITY or others.

3.2 DUST CONTROL

A. Dust Control – General:
   1. Control objectionable dust caused by CONTRACTOR's operation of vehicles and equipment, clearing, and other actions. To minimize airborne dust, apply water or use other methods subject to acceptance of ENGINEER and approval of authorities having jurisdiction.
   2. CONTRACTOR shall prevent blowing and movement of dust from exposed soil surfaces and access roads to reduce on- and off-Site damage, nuisances, and health hazards associated with dust emissions. Control may be achieved by irrigation in which the Site shall be sprinkled with water until the surface is moist. Apply dust controls as frequently as required without creating nuisances such as excessive mud and ponding of water at the Site.
   3. Remove dust from roadways and access roads at maximum intervals of seven days by mechanical brooming or other method acceptable to ENGINEER.

3.3 PEST AND RODENT CONTROL

A. Pest and Rodent Control – General:
   1. Provide rodent and pest control as required to prevent infestation of the Site and storage areas.
   2. Employ methods and use materials that do not adversely affect conditions at the Site or on adjoining properties.
   3. In accordance with Laws and Regulations, promptly and properly dispose of pests and rodents trapped or otherwise controlled.

3.4 WATER CONTROL

A. Water Control – General:
   1. Provide methods to control surface water and water from excavations and structures to prevent damage to the Work, the Site, and adjoining properties.
   2. Control fill, grading, and ditching to direct water away from excavations, pits, tunnels and other construction areas and to direct drainage to proper runoff courses to prevent erosion, damage, or nuisance.

B. Equipment and Facilities for Water Control: Provide, operate, and maintain equipment and facilities of adequate size to control surface water.

C. Discharge and Disposal: Dispose of drainage water in manner to prevent flooding, erosion, and other damage to any and all parts of the Site and adjoining areas, and that complies with Laws and Regulations.

3.5 POLLUTION CONTROL

A. Pollution Control – General:
   1. Provide means, methods, and facilities required to prevent contamination of soil, water, and atmosphere caused by discharge of noxious substances from construction operations.
   2. Equipment used during construction shall comply with Laws and Regulations.

B. Spills and Contamination:
   1. Provide equipment and personnel to perform emergency measures required to contain spills and to remove contaminated soils and liquids.
   2. Excavate contaminated material and properly dispose of off-Site, and replace with suitable compacted fill and topsoil.

C. Protection of Surface Waters: Implement special measures to prevent harmful substances from entering surface waters. Prevent disposal of wastes, effluents, chemicals, and other such substances in or adjacent to surface waters and open drainage routes, in sanitary sewers, or in storm sewers.

D. Atmospheric Pollutants:
   1. Provide systems for controlling atmospheric pollutants related to the Work.
   2. Prevent toxic concentrations of chemicals and vapors.
   3. Prevent harmful dispersal of pollutants into atmosphere.

E. Solid Waste:
   1. Provide systems for controlling and managing solid waste related to the Work.
   2. Prevent solid waste from becoming airborne, and from discharging to surface waters and drainage routes.
   3. Properly handle and dispose of solid waste.

3.6 EROSION AND SEDIMENT CONTROL

A. Installation and Maintenance of Erosion and Sediment Controls – General:
   1. General:
      a. Provide erosion and sediment controls as shown and indicated on the Drawings and elsewhere in the Contract Documents. Provide erosion and sediment controls as the Work progresses into previously undisturbed areas.
      b. Installation of erosion and sediment controls shall be in accordance with the applicable regulatory requirements, unless otherwise shown or indicated in the Contract Documents.

c. Use necessary methods to successfully control erosion and sedimentation, including ecology-oriented construction practices, vegetative measures, and mechanical controls. Use best management practices (BMP) in accordance with Laws and Regulations, to control erosion and sedimentation during the Project.

d. Plan and execute construction, disturbances of soils and soil cover, and earthwork by methods to control surface drainage from cuts and fills, and from borrow and waste disposal areas, to prevent erosion and sedimentation. Provide temporary measures for controlling erosion and sedimentation, as indicated in the Contract Documents and as required for the Project.

e. Where areas must be cleared for storage of materials or equipment, or for temporary facilities, provisions shall be made for regulating drainage and controlling erosion and sedimentation, subject to the ENGINEER'S approval.

f. Provide erosion and sediment controls, including stabilization of soils, at the end of each workday.

2. Coordination:

   a. Coordinate erosion and sediment controls with this Section's requirements on water control.

   b. Coordinate temporary erosion and sediment controls with construction of permanent drainage facilities and other Work to the extent necessary for economical, effective, and continuous erosion and sediment control.

3. Before commencing activities that will disturb soil or soil cover at the Site, provide all erosion and sediment control measures required by the Contract Documents for the areas where soil or soil cover will be disturbed.

4. In general, implement construction procedures associated with, or that may affect, erosion and sediment control to ensure minimum damage to the environment during construction. CONTRACTOR shall implement any and all additional measures required to comply with Laws and Regulations.

5. Vegetation Removal: Remove only those shrubs, grasses, and other vegetation that must be removed for construction. Protect remaining vegetation.

6. Access Roads and Parking Areas: When possible, access roads and temporary roads shall be located and constructed to avoid adverse effects on the environment. Provisions shall be made to regulate drainage, avoid erosion and sedimentation, and minimize damage to vegetation.

7. Earthwork and Temporary Controls:

   a. Perform excavation, fill, and related operations in accordance with Section 31 23 16.13, Trenching.

   b. Control erosion to minimize transport of silt from the Site into existing waterways and surface waters. Such measures shall include, but are not limited to, using berms, silt fencing, baled straw silt barriers, gravel or crushed stone, mulching and soil stabilization, slope drains, and other methods. Apply such temporary measures to erodible materials exposed by activities associated with the construction of the Project.

   c. Hold to a minimum the areas of bare soil exposed at one time.

d. Construct fills and waste areas by selectively placing fill and waste materials to eliminate surface silts and clays that will erode.

e. In performing earthwork, eliminate depressions that could serve as mosquito pools.

f. CONTRACTOR shall provide special care in areas with steep slopes, where disturbance of vegetation shall be minimized to maintain soil stability.

8. Inspection and Maintenance:

a. Periodically inspect areas of earthwork and areas where soil or soil cover are disturbed to detect evidence of the start of erosion and sedimentation; apply corrective measures as required to control erosion and sedimentation. Continue inspections and corrective measures until soils are permanently stabilized and permanent vegetation has been established

b. Repair or replace damaged erosion and sediment controls within 24 hours of CONTRACTOR becoming aware of such damage.

c. Periodically remove silt and sediment that has accumulated in or behind sediment and erosion controls. Properly dispose of silt and sediment.

9. Duration of Erosion and Sediment Controls:

a. Maintain erosion and sediment controls in effective working condition until the associated drainage area has been permanently stabilized.

b. Maintain erosion and sediment controls until the Site is restored and site improvements including landscaping, if any, are complete with underlying soils permanently stabilized.

10. Work Stoppage: If the Work is temporarily stopped or suspended for any reason, CONTRACTOR shall provide additional temporary controls necessary to prevent environmental damage to the Site and adjacent areas while the Work is stopped or suspended.

11. Failure to Provide Adequate Controls: In the event CONTRACTOR repeatedly fails to satisfactorily control erosion and siltation, OWNER reserves the right to employ outside assistance or to use OWNER's own forces for erosion and sediment control. Cost of such work, plus engineering and inspection costs, will be deducted from monies due CONTRACTOR.

B. Silt Fencing:

1. Install and maintain silt fencing in a vertical plane, at the location(s) shown or indicated on the Drawings.

2. Locations of Silt Fencing:

a. Where possible, install silt fencing along contour lines so that each given run fencing is at the same elevation.

b. On slopes install silt fencing at intervals that do not exceed the maximum intervals indicated in the following table:

Slope (percent)	Maximum Length of Slope Above Each Silt Fence (feet)
2 and less	150
2.1 to 5	100
5.1 to 10	50
10.1 to 20	25
20.1 to 25	20
25.1 to 40	15
40.1 to 50	10

c. Provide silt fencing around perimeter of each stockpile of topsoil, general fill material, and excavated material. Install silt fencing before expected precipitation and maintain until stockpile is removed.

d. Do not install silt fencing at the following types of locations:

1) Area of concentrated storm water flows such as ditches, swales, or channels.

2) Where rock or rocky soils prevent full and uniform anchoring of silt fencing.

3) Across upstream or discharge ends of storm water piping or culverts.

4. Installation:

a. Securely fasten wire mesh to posts, and securely fasten filter cloth to wire mesh.

b. When two sections of filter cloth abut each other, fold over edges and overlap by minimum of six inches and securely fasten to wire mesh.

c. Embed posts in the ground to the depth necessary for proper controls; embed posts to at least 16 inches below ground.

d. Filter cloth and wire mesh shall extend a minimum of eight inches below ground and a minimum of 16 inches above ground.

e. Remove sediment accumulated at silt fencing as required. Repair and reinstall silt fencing as required.

5. Maintenance:

a. Do not allow formation of concentrated storm water flows on slopes above silt fencing unless so shown or indicated in the Contract Documents. If unauthorized concentrated storm water flows occur, stabilize the slope via earthmoving and other stabilization measures as required to prevent flow of concentrated storm water flows toward silt fencing.

C. Straw Bale Dike.

1. Install straw bale dikes where shown or indicated, including in swales, along contours, and along toe of slopes.

2. Install bales in shallow excavation as wide as the bale and approximately four to six inches below surrounding grade.

3. Ends of bale shall tightly abut ends of adjacent bales.

4. Securely install straw bales using two support posts per bale, driven into the ground a minimum of 1.5 to two feet below bottom of bale. Top of post shall be flush with top of bale. Angle first post for each bale toward the previously-installed bale.
5. Frequently inspect bales and repair or replace as required. Remove accumulated silt and debris from behind straw bales.

D. Mulching and Soil Stabilization:
1. Use mulching to temporarily stabilize exposed soil and fill material.
   a. Immediately following final grading, provide mulch and stabilize with mats or netting, or sprayed soil stabilization emulsion with fiber additive.
   b. Application of mulching for soil stabilization shall be as follows.
      1) Unrotted Straw or Salt Hay: 1.5 to two tons per acre.
      2) Soil stabilization emulsions, when used, shall be applied in accordance with manufacturer's instructions, and shall be applied with mulch or stabilization fibers.
      3) Wood-fiber or Paper-fiber Application: 1,500 lbs. per acre, installed by hydroseeding.
   c. Where mats or netting are used:
      1) Cover entire area to be stabilized with mats or netting.
      2) Provide anchoring trenches at the top and bottom of slopes to receive mats or netting. Bury at least the top and bottom ends of mat or netting, four inches or more wide, at top and bottom of slope. Tamp trench full of soil. Four inches from trench, secure mat or netting with appropriate staples spaced at intervals of 10 inches.
      3) Overlap adjacent strips of mat or netting by at least four inches.

E. Protection of Storm Water Drainage Inlets and Catch Basins:
1. Protect each drainage inlet and catch basin that has the potential to receive storm water runoff from exposed soils, and does not discharge into a storm water settlement basin.
2. Install inlet filter bags inside of drainage inlet or catch basin in accordance with manufacturer's instructions. Secure inlet filter bag with the structure's grate or by other acceptable means.
3. Inlet filter bags shall not pose any obstruction above the elevation of the drainage inlet or catch basin grate requiring barricades or flashers.
4. When removing silt and sediment from inlet filter bag, do not dumpi filter bag's contents into the drainage inlet or catch basin.
5. Remove silt and sediment from inlet filter bag, or replace inlet filter bag, when inlet filter bag is not more than half full.

F. Temporary Settlement Basin.
1. For constructing embankments comply with requirements in Division 31 Sections on earthwork, embankments, excavation, and fill.
2. Overflow Weir and Discharge Pipe:
   a. Install piping in accordance with manufacturer's instructions.

b. Install overflow weirs at elevations on shown or indicated on the Drawings or approved Shop Drawings, as applicable, to avoid overtopping and overfilling of settlement basin without short-circuiting the settlement basin's hydraulics.

c. Wrap geotextile material specified for silt fencing around discharge structures of temporary settlement basins

3. Crushed Stone and Riprap: Install in accordance with Division 31 Sections on crushed stone and riprap. Provide in areas of temporary settlement basin subject to erosion, and at upstream and downstream ends of discharge piping.
4. Remove sediment when required based on accumulation of material.
5. When temporary settlement basin is no longer required, remove the temporary settlement basin discharge weir , discharge pipe, and spillway, fill the temporary sediment basin to required grade in accordance with requirements of Division 31 Section on excavation and fill, and provide landscaping in accordance with Division 32 Sections on landscaping.

G. Filter Bag on Dewatering Pump Discharge:

1. Provide dewatering of excavations in compliance with Division 31 Sections on earthmoving, excavation, and fill.
2. Locate filter bags and temporary pump discharge lines to avoid interfering with the public, use of private property, and OWNER's operations. Relocate filter bags and appurtenances when required.
3. Filter bag discharge shall be directed to appropriate storm water drainage route. Do not discharge into roadways, driveways, access roads, and overland. When temporary settlement basin is used, locate filter bags to discharge to temporary settlement basin when practicable.
4. Provide filter bag on discharge of each dewatering pump drawing from an excavation.
5. Securely attach filter bag to pump discharge pipe or hose.
6. Maintain, clean out, and replace filter bags as required.

3.7 REMOVAL OF TEMPORARY CONTROLS

A. Removals – General:

1. Upon completion of the Work, remove temporary controls and restore Site to specified condition; if condition is not specified, restore Site to pre-construction condition.

2. After soils are permanently stabilized, remove from the Site temporary erosion and sediment controls.

+ + END OF SECTION + +

SECTION 01 65 00

PRODUCT DELIVERY REQUIREMENTS

PART 1 - GENERAL

1.1 DESCRIPTION

A. Scope:

1. This Section includes the general requirements for preparing for shipping, delivering, and handling materials and equipment.
2. CONTRACTOR shall make all arrangements for transporting, delivering, and handling of materials and equpiment required for prosecution and completion of the Work.
3. When required, move stored materials and equipment without additional compensation and without changes to the Contract Times.

1.2 SUBMITTALS

A. Refer to individual Specification Sections for submittal requirements relative to delivering and handling materials and equipment.

1.3 PREPARING FOR SHIPMENT

A. When practical, factory-assemble materials and equipment. Match mark or tag separate parts and assemblies to facilitate field assembly. Cover machined and unpainted parts that may be damaged by the elements with strippable, protective coating.

B. Package materials and equipment to facilitate handling, and protect materials and equipment from damage during shipping, handling, and storage. Mark or tag outside of each package or crate to indicate the associated purchase order number, bill of lading number, contents by name, CITY's contract name and number, CONTRACTOR name, equipment number, and approximate weight. Include complete packing lists and bills of materials with each shipment.

C. Protect materials and equipment from exposure to the elements and keep thoroughly dry and dust-free at all times. Protect painted surfaces against impact, abrasion, discoloration, and other damage. Lubricate bearings and other items requiring lubrication in accordance with manufacturer's instructions.

D. Advance Notice of Shipments:

1. Keep ENGINEER informed of delivery of all materials and equipment to be incorporated in the Work.

E. Do not ship materials and equipment until:
   1. Related Shop Drawings, Samples, and other submittals have been approved or accepted (as applicable) by ENGINEER, including, but not necessarily limited to, all Action Submittals associated with the materials and equipment being delivered.
   2. Manufacturer's instructions for handling, storing, and installing the associated materials and equipment have been submitted to and accepted by ENGINEER in accordance with the Specifications.
   3. Results of source quality control testing (factory testing), when required by the Contract Documents for the associated materials or equipment, have been reviewed and accepted by ENGINEER.
   4. Facilities required for handling materials and equipment in accordance with manufacturer's instructions are in place and available.
   5. Required storage facilities have been provided.

1.4 DELIVERY

A. Scheduling and Timing of Deliveries:
   1. Arrange deliveries of materials and equipment in accordance with the accepted Progress Schedule and in ample time to facilitate inspection prior to installation.
   2. Schedule deliveries to minimize space required for and duration of storage of materials and equipment at the Site or delivery location, as applicable.
   3. Coordinate deliveries to avoid conflicting with the Work and conditions at Site, and to accommodate the following:
      a. Work of other contractors and OWNER.
      b. Storage space limitations.
      c. Availability of equipment and personnel for handling materials and equipment.
      d. OWNER's use of premises.
   4. Deliver materials and equipment to the Site during regular working hours.
   5. Deliver materials and equipment to avoid delaying the Work and the Project, including work of other contractors, as applicable. Deliver anchor system materials, including anchor bolts to be embedded in concrete or masonry, in ample time to avoid delaying the Work.

B. Deliveries:
   1. Shipments shall be delivered with CONTRACTOR's name, Subcontractor's name (if applicable), Site name, Project name, and contract designation (example: "ABC Construction Co., City of Somewhere, Idaho, Wastewater Treatment Plant Primary Clarifier Improvements, Contract 25, General Construction") clearly marked.
   2. Site may be listed as the "ship to" or "delivery" address; but CITY shall not be listed as recipient of shipment unless otherwise directed in writing by ENGINEER.

3. Provide CONTRACTOR's telephone number to shipper; do not provide CITY's telephone number.
4. Arrange for deliveries while CONTRACTOR's personnel are at the Site. CONTRACTOR shall receive and coordinate shipments upon delivery. Shipments delivered to the Site when CONTRACTOR is not present will be refused by OWNER, and CONTRACTOR shall be responsible for the associated delays and additional costs, if incurred.

C. Containers and Marking:
1. Have materials and equipment delivered in manufacturer's original, unopened, labeled containers.
2. Clearly mark partial deliveries of component parts of materials and equipment to identify materials and equipment, to allow easy accumulation of parts, and to facilitate assembly.

D. Inspection of Deliveries:
1. Immediately upon delivery, inspect shipment to verify that:
   a. Materials and equipment comply with the Contract Documents and approved or accepted (as applicable) submittals.
   b. Quantities are correct.
   c. Materials and equipment are undamaged.
   d. Containers and packages are intact and labels are legible.
   e. Materials and equipment are properly protected.
2. Promptly remove damaged materials and equipment from the Site and expedite delivery of new, undamaged materials and equipment, and remedy incomplete or lost materials and equipment to furnish materials and equipment in accordance with the Contract Documents, to avoid delaying progress of the Work.
3. Advise ENGINEER in writing when damaged, incomplete, or defective materials and equipment are delivered, and advise ENGINEER of the associated impact on the Progress Schedule.

1.5 HANDLING OF MATERIALS AND EQUIPMENT

A. Provide equipment and personnel necessary to handle materials and equipment, by methods that prevent soiling or damaging materials and equipment and packaging.

B. Provide additional protection during handling as necessary to prevent scraping, marring, and otherwise damaging materials and equipment and surrounding surfaces.

C. Handle materials and equipment by methods that prevent bending and overstressing.

D. Lift heavy components only at designated lifting points.

E. Handle materials and equipment in safe manner and as recommended by the manufacturer to prevent damage. Do not drop, roll, or skid materials and equipment

off delivery vehicles or at other times during handling. Hand-carry or use suitable handling equipment.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

+ + END OF SECTION + +

SECTION 01 66 00

PRODUCT STORAGE AND HANDLING REQUIREMENTS

PART 1 – GENERAL

1.1 DESCRIPTION

A. This Section includes general requirements for storing and protecting materials and equipment.

1.2 STORAGE

A. Store and protect materials and equipment in accordance with manufacturer's recommendations and the Contract Documents.

B. CONTRACTOR shall make all arrangements and provisions necessary for, and pay all costs for, storing materials and equipment. Excavated materials, construction equipment, and materials and equipment to be incorporated into the Work shall be placed to avoid injuring the Work and existing facilities and property, and so that free access is maintained at all times to all parts of the Work and to public utility installations in vicinity of the Work. Store materials and equipment neatly and compactly in locations that cause minimum inconvenience to OWNER, other contractors, public travel, and owners, tenants, and occupants of adjoining property. Arrange storage in manner to allow easy access for inspection.

C. Areas available at the Site for storing materials and equipment are as approved by ENGINEER.

D. Store materials and equipment to become OWNER's property to facilitate their inspection and ensure preservation of quality and fitness of the Work, including proper protection against damage by freezing, moisture, and high temperatures with ambient temperatures as high as 75 degrees F. Store in indoor, climate-controlled storage areas all materials and equipment subject to damage by moisture, humidity, heat, cold, and other elements, unless otherwise acceptable to OWNER. When placing orders to Suppliers for equipment and controls containing computer chips, electronics, and solid-state devices, CONTRACTOR shall obtain, coordinate, and comply with specific temperature and humidity limitations on materials and equipment, because temperature inside cabinets and components stored in warm temperatures can approach 200 degrees F.

E. CONTRACTOR shall be fully responsible for loss or damage (including theft) to stored materials and equipment.

F. Do not open manufacturer's containers until time of installation, unless recommended by the manufacturer or otherwise specified in the Contract Documents.

G Do not store materials or equipment in structures being constructed unless approved by ENGINEER in writing.

H. Do not use lawns or other private property for storage without written permission of the owner or other person in possession or control of such premises.

1.3 PROTECTION

A. Equipment to be incorporated into the Work shall be boxed, crated, or otherwise completely enclosed and protected during shipping, handling, and storage, in accordance with Section 01 65 00, Product Delivery Requirements.

B. Store all materials and equipment off the ground (or floor) on raised supports such as skids or pallets.

C. Protect painted surfaces against impact, abrasion, discoloration, and other damage. Painted equipment surfaces that are damaged or marred shall be repainted in their entirety in accordance with equipment manufacturer and paint manufacturer requirements, to the satisfaction of ENGINEER.

D. Protect electrical equipment, controls, and instrumentation against moisture, water damage, heat, cold, and dust. Space heaters provided in equipment shall be connected and operating at all times until equipment is placed in operation and permanently connected.

1.4 UNCOVERED STORAGE

A. The following types of materials may be stored outdoors without cover on supports so there is no contact with the ground:
   1. Reinforcing steel.
   2. Structural steel.
   3. Metal access hatches.

1.5 COVERED STORAGE

A. The following materials and equipment may be stored outdoors on supports and completely covered with covering impervious to water:
   1. Grout and mortar materials.
   2. Soil materials and granular materials such as aggregate.
   3. PVC and CPVC pipe.

B. Tie down covers with rope, and slope covering to prevent accumulation of water.

C. Store loose granular materials, with covering impervious to water, in well-drained area or on solid surfaces to prevent mixing with foreign matter.

1.6 FULLY PROTECTED STORAGE

A. Store all material and equipment not named in Articles 1.4 and 1.5 of this Section on supports in buildings or trailers that have concrete or wooden flooring, roof, and fully closed walls on all sides. Covering with visquine plastic sheeting or similar material in space without floor, roof, and walls is not acceptable. Comply with the following:
   1. Provide heated storage for materials and equipment that could be damaged by low temperatures or freezing.
   2. Provide air-conditioned storage for materials and equipment that could be damaged by high temperatures.
   3. Protect mechanical and electrical equipment from being contaminated by dust, dirt, and moisture.
   4. Maintain humidity at levels recommended by manufacturers for electrical and electronic equipment.

1.7 HAZARDOUS PRODUCTS

A. Prevent contamination of personnel, storage area, and the Site. Comply with Laws and Regulations, and manufacturer's instructions.

1.8 MAINTENANCE OF STORAGE

A. On scheduled basis, periodically inspect stored materials and equipment to ensure that:
   1. Condition and status of storage facilities is adequate to provide required storage conditions.
   2. Required environmental conditions are maintained on continuing basis.
   3. Materials and equipment exposed to elements are not adversely affected.

1.9 RECORDS

A. Keep up-to-date account of materials and equipment in storage to facilitate preparation of Applications for Payment, if the Contract Documents provide for payment for materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

+ + END OF SECTION + +

SECTION 01 73 24

CONNECTIONS TO EXISTING FACILITIES

PART 1 – GENERAL

1.1 DESCRIPTION

A. Scope:
   1. This Section includes requirements for connections to existing facilities. Requirements for tie-ins and shutdowns necessary to complete the Work are in Section 01 14 16, Coordination with Owner's Operations.
   2. CONTRACTOR shall provide labor, materials, tools, equipment, and incidentals shown, specified, and required for connections to existing facilities.

B. Coordination:
   1. Review installation procedures under other Sections and coordinate Work that must be performed with or before the Work specified in this Section.

C. Related Sections:
   1. Section 01 14 16, Coordination with Owner's Operations.
   2. Section 01 73 29, Cutting and Patching.

D. General:
   1. Requirements for temporary pumping for connections to existing facilities are in Section 01 14 16, Coordination with Owner's Operations.
   2. Requirements for cutting and patching are in Section 01 73 29, Cutting and Patching.
   3. To extent possible, materials, equipment, systems, piping, and appurtenances that will be placed into service upon completion of connection to existing facilities shall be checked, successfully tested, and in condition for operation prior to making connections to existing facilities, if valves, gates, or similar watertight and gastight isolation devices are not provided at the connection point.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

+ + END OF SECTION + +

SECTION 01 73 29

CUTTING AND PATCHING

PART 1 – GENERAL

1.1 DESCRIPTION

A. Scope:
   1. CONTRACTOR shall perform cutting and coring, and rough and finish patching of holes and openings in existing construction.
   2. Provide cutting, coring, fitting and patching, including attendant excavation and fill, required to complete the Work, and to:
      a. remove and replace defective Work;
      b. remove samples of installed Work as specified or required for testing;
      c. remove construction required to perform required alterations or additions to existing work;
      d. uncover the Work for ENGINEER's observation of covered Work or observation by authorities having jurisdiction;
      e. connect to completed Work not performed in proper sequence;
      f. remove or relocate existing utilities and pipes that obstruct the Work in locations where connections must be made;
      g. make connections or alterations to existing or new facilities.

1.2 SUBMITTALS

A. Action Submittals: Submit the following:
   1. Cutting and Patching Request:
      a. Submit written request to ENGINEER, well in advance of executing cutting or alteration that affects one or more of the following:
         1) Design function or intent of Project.
         2) Work of CITY or other contractors.
         3) Structural value or integrity of an element of the Project.
         4) Integrity or effectiveness of weather-exposed or moisture-resistant elements or systems.
         5) Efficiency, operational life, maintenance, or safety of operational elements.
         6) Visual qualities of sight-exposed elements.
      b. Request shall include:
         1) Identification of Project and contract name and number.
         2) Description of affected Work of CONTRACTOR and work of others (if any).

3) Necessity for cutting.
4) Effect on work of CITY, other contractors (if any), and on structural or weatherproof integrity of Project.
5) Description of proposed Work, describing: scope of cutting and patching; trades who will be executing the Work; products proposed to be used; extent of refinishing; schedule of operations; alternatives to cutting and patching, if any.
7) Designation of entity responsible for cost of cutting and patching, when applicable.
8) Written permission of other contractors (if any) whose work will be affected.

2. Recommendation Regarding Cutting and Patching:
   a. Should conditions of work, or schedule, indicate a change of materials or methods, submit written recommendation to ENGINEER including:
      1) Conditions indicating change.
      2) Recommendations for alternative materials or methods.
      3) Items required with substitution request, in accordance with the substitution request requirements of the Contract Documents.
3. Product Data:
   a. Submit manufacturer's product data for the protective compound to be applied to core-drilled surfaces and cut concrete surfaces.

B. Informational Submittals: Submit the following:
   1. Submit written indication designating the day and time that the construction associated with cutting and patching will be uncovered, to provide for observation. Do not begin cutting or patching operations until submittal is accepted by ENGINEER.

C. Comply with submittal requirements in the Division 02 through Division 49 Specifications for patching materials.

PART 2 – PRODUCTS

2.1 MATERIALS

A. Materials - General:
   1. Use materials in conformance with the Contract Documents.
   2. If not shown or indicated in the Contract Documents, use materials and products that are identical to existing materials and products affected by cutting and patching Work.
   3. For exposed surfaces, use materials that visually match existing adjacent surfaces to fullest extent possible. If identical materials are unavailable or cannot be used, use materials whose installed performance will equal or surpass that of existing materials.

4. Replace, patch, and repair materials and surfaces cut or damaged during cutting and patching operations, using materials that do not void required or existing warranties.

B. Compound Applied to Core-Drilled Surfaces and Cut Concrete Surfaces:
   1. After core-drilling and before installing the utility or equipment through the penetration, coat exposed concrete and steel with solvent-free, two-component, epoxy protective coating.
   2. Product and Manufacturer: Provide one of the following:
      a. Sikagard 62, by Sika Corporation.
      b. Or equal.

PART 3 – EXECUTION

3.1 GENERAL

A. Perform cutting and coring in such manner that limits extent of patching.

B. Structural Elements: Do not cut or patch structural elements in manner that would change structural element's load-carrying capacity as load deflection ratio.

C. Operating Elements: Do not cut or patch operating elements in manner that would reduce their capacity to perform as intended. Do not cut or patch operating elements or related components in manner that would increase maintenance requirements or decrease operational life or safety.

D. Replace, patch, and repair materials and surfaces cut or damaged during cutting and patching operations, using methods that do not void required or existing warranties.

3.2 INSPECTION

A. Examine surfaces to be cut or patched and conditions under which cutting or patching are to be performed before starting cutting or patching work.

B. Report unsatisfactory or questionable conditions to ENGINEER in writing. Do not proceed with the Work until unsatisfactory conditions are corrected.

3.3 PREPARATION

A. Provide temporary support required to maintain structural integrity of Project, to protect adjacent Work from damage during cutting, and to support the element(s) to be cut.

B. Protection of Existing Construction During Cutting and Patching:

1. Protect existing construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of the Project that will be exposed during cutting and patching operations.
2. Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.
3. Do not cut existing pipe, conduit, ductwork, or other utilities serving facilities scheduled to be removed or relocated until provisions have been made to bypass them.

3.4 CORING

A. Core-drill holes to be cut through concrete and masonry walls, slabs, or arches, unless otherwise accepted by ENGINEER in writing.

B. Coring:
   1. Perform coring with non-impact rotary tool using diamond core-drills. Size holes for pipe, conduit, sleeves, equipment or mechanical seals, as required, to be installed through the penetration.

C. Protection:
   1. Protect existing equipment, utilities, and adjacent areas from water and other damage covered by core-drilling operations.
   2. After core-drilling and before installing the utility or equipment through the penetration, coat exposed concrete and steel with protective coating material indicated in Paragraph 2.1.B of this Section. Apply protective coating in accordance with manufacturer's instructions.

D. Cleaning:
   1. Vacuum or otherwise remove slurry and tailings from the work area following core-drilling.

3.5 CUTTING

A. Cutting – General:
   1. Cut existing construction using methods least likely to damage elements retained or adjoining construction, and that provide proper surfaces to receive installation or repair.
   2. In general, use hand or small power tools suitable for sawing or grinding. Avoid using hammering and chopping when possible.
   3. Cut holes and slots as small as possible, neatly to the size required, and with minimum disturbance of adjacent surfaces.
   4. Provide adequate bracing of area to be cut prior to start of cutting.
   5. To avoid marring existing finished surfaces, cut or drill from exposed or finished side into concealed side.
   6. Provide equipment of adequate size to remove cut panel.
   7. Provide temporary covering over cut openings where not in use.

B. Cutting – Concrete and Masonry:
   1. Cut through concrete and masonry using concrete wall saw with diamond saw blades.
   2. On both the element being cut, provide for control of slurry generated during sawing.
   3. After cutting concrete and before installing subsequent construction on or through the opening, coat exposed concrete and steel with protective coating material indicated in Paragraph 2.1.B of this Section. Apply protective coating in accordance with manufacturer's instructions.

3.6 PATCHING

A. Patching – General:
   1. Patch construction by filling, repairing, refinishing, closing-up, and similar operations following performance of other Work.
   2. Patch with durable seams that are as inconspicuous as possible. Provide materials and comply with installation requirements indicated in the Contract Documents.
   3. Patch to provide airtight connections to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
   4. Where feasible, test patched areas to demonstrate integrity of installation.

B. Restoration:
   1. Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in manner that eliminates evidence of patching and refinishing.
   2. For continuous surfaces, refinish to nearest intersection.
   3. For an assembly, refinish the entire unit that was patched.
   4. Patch, repair, or rehang existing ceilings as necessary to provide an even-plane surface of uniform appearance.

3.7 CLEANING

A. Cleaning and Restoration:
   1. Clean areas and spaces where cutting, coring, or patching were performed.
   2. Clean piping, conduit, and similar constructions before applying paint or other finishing materials.
   3. Restore damaged coverings of pipe and other utilities to original condition.

+ + END OF SECTION + +

SECTION 01 74 19

CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

PART 1 – GENERAL

1.1 DESCRIPTION

A. Scope:
   1. CONTRACTOR shall comply with the requirements and procedures for construction waste management and disposal, including:
      a. Minimizing construction waste and debris and reusing, salvaging, and recycling to specified extent.
      b. Developing and implementing a plan for construction waste management and disposal.

B. Coordination:
   1. Coordinate salvaging, recycling, and disposing of waste as specified under this and other Sections.

1.2 TERMINOLOGY

A. The following words or terms are not defined but, when used in this Section, have the following meaning:

   1. "Waste Management Coordinator" is the person responsible for implementing, monitoring, and reporting the status of the Waste Management Plan. Although available for other assignments, the Waste Management Coordinator shall be present at the Site full time for the duration of the Work.
   2. "Construction waste" is building and site improvement materials and other solid waste resulting from construction, remodeling, renovation, or repair operations. Construction waste includes packaging.
   3. "Demolition waste" is building and site improvement materials resulting from demolition or selective demolition operations.
   4. "Disposal" is removal to an off-Site location of demolition and construction waste and subsequent sale, recycling, reuse, or disposal in a landfill or incinerator conforming to Laws and Regulations and acceptable to authorities having jurisdiction.
   5. "Recycle" is recovery of demolition waste or construction waste for subsequent processing in preparation for reuse.
   6. "Salvage' is recovery of demolition or construction waste and subsequent sale or reuse in another facility.

7. "Salvage and reuse" is recovery of demolition or construction waste and subsequent incorporation into the Work.

1.3 QUALITY ASSURANCE

A. Regulatory Requirements: Comply with hauling and disposal Laws and Regulations of authorities having jurisdiction.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Salvage Materials: Provide protective handling and storage as required for all items identified in the Contract Documents for salvage and reuse.

B. Recyclable Waste: On daily basis remove all recyclable materials identified in the waste management plan from the work area in acceptable containers.

C. Provide separate collection containers as required by recycling haulers and to prevent contamination of materials, including protection from the elements as applicable.

D. Replace loaded containers with empty containers as demand requires, at least weekly.

E. Handling: Deposit recyclable materials in containers in clean (no mud, adhesives, solvents, petroleum contamination), debris-free condition.

F. If contamination chemically combines with materials so that materials cannot be cleaned, do not deposit into recycle containers.

G. Environmental Requirements: Transport recyclable waste materials from the work area to recycle containers, and carefully deposit in containers in manner to minimize noise and dust. Close the covers of container immediately after materials are deposited. Do not place recyclable waste materials on the ground adjacent to container.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.1 PLAN IMPLEMENTATION

A. General: Implement the waste management plan. Provide handling, containers, storage, signage, transportation, and other items required to implement the waste management pan during the Project.

B. Training: Train all installers, Subcontractors, and Suppliers as required on proper waste management procedures required for the Work.
   1. Distribute the waste management plan as required.
   2. Distribute the waste management plan to CONTRACTOR's personnel, Subcontractors, and Suppliers prior to these entities starting the Work. Review with installers, Subcontractors, and Suppliers the waste management plan's procedures and locations established for salvage, recycling, and disposal.

C. Site Access and Temporary Controls: Conduct waste management operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent facilities.
   1. Designate and label specific areas of the Site necessary for separating materials to be salvaged, recycled, reused, donated, or sold.
   2. Provide temporary controls in accordance with the Contract Documents.

3.2 SALVAGING DEMOLITION WASTE

A. Salvaged Items for Reuse in the Work:
   1. Clean salvaged items before reusing.
   2. Pack or crate salvaged items after cleaning. Identify contents of containers.
   3. Store items in secure area until installation.
   4. Protect items from damage during transport and storage.
   5. Install salvaged items to comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make salvaged items functional for use indicated.

B. Salvaged Items for CITY's Use:
   1. Clean salvaged items.
   2. Pack or crate items after cleaning. Identify contents of containers.
   3. Store items in secure area until delivery to CITY.
   4. Transport items to CITY's storage area designated by CITY.
   5. Protect items from damage during transport and storage.

3.3 RECYCLING WASTE, GENERAL

A. Recycle paper and beverage containers used by CONTRACTOR's personnel, Subcontractors, and Suppliers.

B. Recycling Incentives: Revenues, savings, rebates, tax credits, and other incentives received for recycling waste materials will accrue to the CONTRACTOR.

C. Procedures: Separate recyclable waste from other waste materials, trash, and debris. Separate recyclable waste by type at the Site to the maximum extent practical.
   1. Provide appropriately marked containers or bins for controlling recyclable waste until recyclable materials are removed from Site. Provide list of

acceptable and unacceptable materials at each container and bin.

a. Inspect containers and bins for contamination and remove contaminated materials if found.

2. Stockpile processed materials at the Site without intermixing with other materials. Place, grade, and shape stockpiles to drain water. Cover to prevent dust and blowing debris.
3. Stockpile materials away from the construction area. Do not store within drip line of trees.
4. Remove recyclable waste from the Site and from CITY's property and transport to recycling receiver or processor.

3.4 RECYCLING DEMOLITION WASTE

A. Bituminous Pavement Materials: Grind bituminous pavement into particles of maximum size of four-inch dimensions.
   1. Break up and transport pavement to asphalt-recycling facility.

B. Concrete: Remove reinforcement and other metals from concrete and sort with other metals.
   1. Crush concrete to maximum dimensions of four inches.

3.5 RECYCLING CONSTRUCTION WASTE

A. Packaging:
   1. Cardboard and Boxes: Break down packaging into flat sheets. Bundle and store at dry location.
   2. Polystyrene Packaging: Separate polystyrene materials and store in bags.
   3. Pallets: Require that goods delivered on pallets have the pallets removed from Site, to the extent possible. For pallets that remain at the Site, break down pallets into component wood pieces and comply with requirements for recycling wood.
   4. Crates: Break down crates into component wood pieces and comply with requirements for recycling wood.

B. Site-Clearing Wastes: Chip brush, branches, and trees.

C. Wood Materials:
   1. Clean Cut-Offs (i.e., wood without fasteners or disease) of Lumber: Grind or chip into small pieces.

3.6 DISPOSAL OF WASTE

A. General: Except for items or materials to be salvaged, recycled, or otherwise reused, remove waste materials from the Site and properly dispose of waste in facility such as

permitted landfill or incinerator or other method acceptable to authorities having jurisdiction.

1. Except as otherwise specified, remove from the Site all waste and debris from the Work as it accumulates. Upon completion of the Work, remove materials, equipment, waste, and debris and leave the Site clean, neat, and orderly. Comply with the Contract Documents regarding cleaning and removal of trash, debris, and waste.
2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.

B. Burning: Do not burn waste materials at the Site.

C. Disposal: Transport waste materials to proper location at site other than OWNER's property for disposal in accordance with Laws and Regulations.

+ + END OF SECTION + +

SECTION 01 78 39

PROJECT RECORD DOCUMENTS

PART 1 – GENERAL

1.1 DESCRIPTION

A. CONTRACTOR shall maintain and submit to ENGINEER with record documents in accordance with the Specifications, General Conditions, and Supplementary Conditions.

B. Maintenance of Record Documents:
   1. Maintain in CONTRACTOR's field office, in clean, dry, legible condition, complete sets of the following record documents: Drawings, Specifications, and Addenda; Shop Drawings, Samples, and other CONTRACTOR submittals, including records of test results, approved or accepted as applicable, by ENGINEER; Change Orders, Work Change Directives, Field Orders, photographic documentation, survey data, and all other documents pertinent to the Work.
   2. Provide files and racks for proper storage and easy access to record documents. File record documents in accordance with the edition of the Construction Specification Institute's "MasterFormat" used for organizing the Project Manual, unless otherwise accepted by ENGINEER.
   3. Make record documents available for inspection upon request of ENGINEER or OWNER.
   4. Do not use record documents for purpose other than serving as Project record. Do not remove record documents from CONTRACTOR's field office without ENGINEER's approval.

C. Submittal of Record Documents:
   1. Submit to ENGINEER the following record documents:
      a. Drawings.
      b. Project Manual including Specifications and Addenda (bound).
   2. Prior to readiness for final payment, submit to ENGINEER one copy of final record documents. Submit complete record documents; do not make partial submittals.
   3. Submit record documents with transmittal letter on CONTRACTOR letterhead.
   4. Record documents submittal shall include certification, with original signature of official authorized to execute legal agreements on behalf of CONTRACTOR, reading as follows:
      "[*Insert Contractor's corporate name*] has maintained and submitted record documentation in accordance with the General Conditions and Supplementary Conditions, Section 01 78 39, Project Record Documents, and other elements

of Contract Documents, for the CITY OF CANTON, OHIO, WSI-ESI INTERCONNECTION VAULTS. We certify that each record document submitted is complete, accurate, and legible relative to the Work performed under our Contract, and that the record documents comply with the requirements of the Contract Documents.

[*Provide signature, print name, print signing party's corporate title, and date*]"

1.2 RECORDING CHANGES

A. General:
   1. At the start of the Project, label each record document to be submitted as, "PROJECT RECORD" using legible, printed letters. Letters on record copy of the Drawings shall be two inches high.
   2. Keep record documents current. Make entries on record documents within two working days of receipt of information required to record the change.
   3. Do not permanently conceal the Work until required information has been recorded.
   4. Accuracy of record documents shall be such that future searches for items shown on the record documents may rely reasonably on information obtained from ENGINEER-accepted record documents.
   5. Marking of Entries:
      a. Use erasable, colored pencils (not ink or indelible pencil) for marking changes, revisions, additions, and deletions to record documents.
      b. Clearly describe the change by graphic line and make notations as required. Use straight-edge to mark straight lines. Writing shall be legible and sufficiently dark to allow scanning of record documents into legible electronic files.
      c. Date all entries on record documents.
      d. Call attention to changes by drawing a "cloud" around the change(s) indicated.
      e. Mark initial revisions in red. In the event of overlapping changes, use different colors for subsequent changes.

B. Drawings:
   1. Record changes on copy of the Drawings. Submittal of CONTRACTOR-originated or -produced drawings as a substitute for recording changes on the Drawings is unacceptable.
   2. Record changes on plans, sections, schematics, and details as required for clarity, making reference dimensions and elevations (to Project datum) for complete record documentation.
   3. Record actual construction including:
      a. Depths of various elements of foundation relative to Project datum.
      b. Horizontal and vertical location of Underground Facilities referenced to permanent surface improvements. For each Underground Facility,

including pipe fittings, provide dimensions to at least two permanent, visible surface improvements.

c. Location of exposed utilities and appurtenances concealed in construction, referenced to visible and accessible features of structure.

d. Changes in structural and architectural elements of the Work, including changes in reinforcing.

e. Field changes of dimensions, arrangements, and details.

f. Changes made in accordance with Change Orders, Work Change Directives, and Field Orders.

g. Changes in details on the Drawings. Submit additional details prepared by CONTRACTOR when required to document changes.

4. Recording Changes for Schematic Layouts:

a. In some cases on the Drawings, arrangements of conduits, circuits, piping, ducts, and similar items are shown schematically and are not intended to portray physical layout. For such cases, the final physical arrangement shall be determined by CONTRACTOR subject to acceptance by ENGINEER.

b. Record on record documents all revisions to schematics on Drawings, including: piping schematics, ducting schematics, process and instrumentation diagrams, control and circuitry diagrams, electrical one-line diagrams, motor control center layouts, and other schematics when included in the Contract. Record actual locations of equipment, lighting fixtures, in-place grounding system, and other pertinent data.

c. When dimensioned plans and dimensioned sections on the Drawings show the Work schematically, indicate on the record documents, by dimensions accurate to within one inch in the field, centerline location of items of Work such as conduit, piping, ducts, and similar items

1) Clearly identify the Work item by accurate notations such as "cast iron drain", "rigid electrical conduit", "copper waterline", and similar descriptions.

2) Show by symbol or note the vertical location of Work item; for example, "embedded in slab", "under slab", "in ceiling plenum", "exposed", and similar designations. For piping not embedded, also provide elevation dimension relative to Project datum.

3) Descriptions shall be sufficiently detailed to be related to Specifications.

d. ENGINEER may furnish written waiver of requirements relative to schematic layouts shown on plans and sections when, in ENGINEER's judgment, dimensioned layouts of Work shown schematically will serve no useful purpose. Do not rely on waiver(s) being issued.

5. Supplemental Drawings:

a. In some cases, drawings produced during construction by ENGINEER or CONTRACTOR supplement the Drawings and shall be included with record documents submitted by CONTRACTOR. Supplemental record drawings shall include drawings provided with Change Orders, Work

Change Directives, and Field Orders and that cannot be incorporated into the Drawings due to space limitations.

b. Supplemental drawings provided with record drawings shall be integrated with the Drawings and include necessary cross-references between drawings. Supplemental record drawings shall be on sheets the same size as the Drawings.

c. When supplemental drawings developed by CONTRACTOR using computer-aided drafting/design (CADD) software are to be included in record drawings, submit electronic files for such drawings in AutoCAD 2010 format as part of record drawing submittal. Submit electronic files on compact disc labeled, "Supplemental Record Drawings", together with CONTRACTOR name, Project name, and Contract name and number.

C. Specifications and Addenda:

1. Mark each Section to record:

a. Manufacturer, trade name, catalog number, and Supplier of each product and item of equipment actually provided.

b. Changes made by Addendum, Change Orders, Work Change Directives, and Field Orders.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

+ + END OF SECTION + +

SECTION 03 00 05

CONCRETE

PART 1 – GENERAL

1.1 DESCRIPTION

A. Scope:
   1. CONTRACTOR shall provide all labor, materials, equipment, and incidentals as shown, specified, and required to furnish and install concrete, reinforcing, and related materials.
   2. The Work includes:
      a. Providing concrete consisting of portland cement, fine and coarse aggregates, water, and approved admixtures; combined, mixed, transported, placed, finished, and cured.
      b. Fabricating and placing reinforcing, including ties and supports.
      c. Design, erection, and removal of formwork.
      d. Building into the concrete all sleeves, frames, anchorage devices, inserts, and other items required to be embedded in concrete.
      e. Providing openings in concrete as required to accommodate Work under this and other Sections.

B. Coordination:
   1. Review installation procedures under other Sections and coordinate installation of items to be installed in the concrete Work.
   2. Notify other contractors in advance of placing concrete to provide other contractors with sufficient time for installing items included in their contracts that are to be installed in the concrete Work.

1.2 REFERENCES

A. Standards referenced in this Section are:
   1. ACI 224R, Control of Cracking in Concrete Structures.
   2. ACI 301, Specifications for Structural Concrete for Buildings.
   3. ACI 304R, Guide for Measuring, Mixing, Transporting and Placing Concrete.
   4. ACI 305R, Specification for Hot Weather Concreting.
   5. ACI 306R, Cold Weather Concreting.
   6. ACI 309R, Guide for Consolidation of Concrete.
   7. ACI 318, Building Code Requirements for Structural Concrete and Commentary.
   8. ACI 347, Guide to Formwork for Concrete.
   9. ACI SP-66, ACI Detailing Manual.

10. ASTM A82/A82M, Specification for Steel Wire, Plain, for Concrete Reinforcement.
11. ASTM A185/A185M, Specification for Steel Welded Wire Reinforcement, Plain, for Concrete.
12. ASTM A615/A615M, Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement.
13. ASTM C31/C31M, Practice for Making and Curing Concrete Test Specimens in the Field.
14. ASTM C33/C33M, Specification for Concrete Aggregates.
15. ASTM C39/C39M, Test Method for Compressive Strength of Cylindrical Concrete Specimens.
16. ASTM C42/C42M, Test Method for Obtaining and Testing Drilled Cores and Sawed Beams of Concrete.
17. ASTM C94/C94M, Specification for Ready-Mixed Concrete.
18. ASTM C138/C138M, Test Method for Density (Unit Weight), Yield, and Air Content (Gravimetric) of Concrete.
19. ASTM C143/C143M, Test Method for Slump of Hydraulic-Cement Concrete.
20. ASTM C150/C150M, Specification for Portland Cement.
21. ASTM C172, Practice for Sampling Freshly Mixed Concrete.
22. ASTM C231, Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method.
23. ASTM C260, Specification for Air-Entraining Admixtures for Concrete.
24. ASTM C309, Specification for Liquid Membrane-Forming Compounds for Curing Concrete.
25. ASTM C494/C494M, Specification for Chemical Admixtures for Concrete.
26. ASTM C579, Methods for Compressive Strength of Chemical-Resistant Mortars, Grouts, Monolithic Surfacings, and Polymer Concretes.
27. ASTM C1064/C1064M, Standard Test Method for Temperature of Freshly Mixed Hydraulic-Cement Concrete.
28. ASTM D1752, Specification for Preformed Sponge Rubber Cork and Recycled PVC Expansion Joint Fillers for Concrete Paving and Structural Construction.
29. ASTM E96/E96M, Test Methods for Water Vapor Transmission of Materials
30. ASTM E154, Test Methods for Water Vapor Retarders Used in Contact with Earth Under Concrete Slabs, on Walls, or as Ground Cover.
31. CRD-C 572, U. S. Army Corps of Engineers Specification for Polyvinylchloride Waterstops.
32. CRSI 1MSP, Manual of Standard Practice.

1.3 QUALITY ASSURANCE

A. Laboratory Trial Batch:
   1. Employ independent testing laboratory experienced in design and testing of concrete materials and mixes to perform material evaluation tests and to design concrete mixes.

2. Each concrete mix design specified shall be verified by laboratory trial batch, unless indicated otherwise.
3. Perform the following testing on each trial batch:
   a. Aggregate gradation for fine and coarse aggregates.
   b. Slump.
   c. Air content.
   d. Compressive strength based on three cylinders each tested at seven days and at 28 days.
4. Submit for each trial batch the following information:
   a. Project identification name and number (if applicable).
   b. Date of test report.
   c. Complete identification of aggregate source of supply.
   d. Tests of aggregates for compliance with the Contract Documents.
   e. Scale weight of each aggregate.
   f. Absorbed water in each aggregate.
   g. Brand, type, and composition of cementitious materials.
   h. Brand, type, and amount of each admixture.
   i. Amounts of water used in trial mixes.
   j. Proportions of each material per cubic yard.
   k. Gross weight and yield per cubic yard of trial mixtures.
   l. Measured slump.
   m. Measured air content.
   n. Compressive strength developed at seven days and 28 days, from not less than three test cylinders cast for each seven day and 28-day test, and for each design mix.

1.4 SUBMITTALS

A. Action Submittals: Submit the following:
   1. Shop Drawings:
      a. List of concrete materials and concrete mix designs proposed for use. Include results of tests performed to qualify the materials and to establish the mix designs. Do not start laboratory trial batch testing until this submittal is approved by ENGINEER.
      b. Laboratory Trial Batch Reports: Submit laboratory test reports for concrete cylinders, materials, and mix design tests.
      c. Concrete placement drawings showing the location and type of all joints.
      d. Drawings for fabricating, bending, and placing concrete reinforcing. Comply with ACI SP-66. Show bar schedules, stirrup spacing, epoxy dowels, splice lengths, diagrams of bent bars, arrangements, and assemblies, as required for fabricating and placing concrete reinforcing.
   2. Product Data:
      a. Manufacturer's specifications with application and installation instructions for proprietary materials and items, including admixtures and bonding agents.

3. Samples:
   a. Samples: Submit samples of materials as specified and as otherwise requested by ENGINEER, including names, sources, and descriptions.

B. Informational Submittals: Submit the following:
   1. Delivery Tickets: Copies of all delivery tickets for each load of concrete delivered to or mixed at the Site. Each delivery tickets shall contain the information in accordance with ASTM C94/C94M along with project identification name and number (if any), date, mix type, mix time, quantity and amount of water introduced.

1.5 PRODUCT DELIVERY, STORAGE AND HANDLING

A. Transportation, Delivery, and Handling:
   1. Deliver concrete reinforcing products to Site bundled, tagged, and marked. Use metal tags indicating bar size, lengths, and other information corresponding to markings on approved Shop Drawings.
   2. Materials used for concrete shall be clean and free from foreign matter during transportation and handling, and kept separate until measured and placed into concrete mixer.
   3. Implement suitable measures during hauling, piling, and handling to ensure that segregation of coarse and fine aggregate particles does not occur and grading is not affected.
   4. Deliver grout materials from manufacturers in unopened containers that bear intact manufacturer labeling.
   5. Comply with Section 01 65 00, Product Delivery Requirements.

B. Storage:
   1. Store formwork materials above ground on framework or blocking. Cover wood for forms and other accessory materials with protective, waterproof covering. Provide for adequate air circulation or ventilation under cover.
   2. Store concrete reinforcing materials to prevent damage and accumulation of dirt and excessive rust. Store on heavy wood blocking so that reinforcing does not come into contact with the ground. Space framework or blocking supports to prevent excessive deformation of stored materials.
   3. Store concrete joint materials on platforms or in enclosures or covered to prevent contact with ground and exposure to weather and direct sunlight.
   4. For storage of concrete materials, provide bins or platforms with hard, clean surfaces.
   5. Comply with Section 01 66 00, Product Storage and Handling Requirements.

PART 2 – PRODUCTS

2.1 CONCRETE MATERIALS

A. Portland Cement: ASTM C150/C150M, Type I or II.

B. Aggregates: ASTM C33/C33M.
   1. Fine Aggregate: Clean, sharp, natural sand free of loam, clay, lumps, and other deleterious substances. Dune sand, bank run sand, and manufactured sand are unacceptable.
   2. Coarse Aggregate:
      a. Clean, uncoated, processed aggregate containing no clay, mud, loam, or foreign matter.
      b. Coarse aggregate shall comply with the following:
         1) Crushed stone, processed from natural rock or stone.
         2) Washed gravel, either natural or crushed. Slag, pit gravel, and bank-run gravel are not allowed.

C. Water: Clean, potable.

D. Admixtures:
   1. Air-Entraining Admixture: ASTM C260.
   2. Water-Reducing Admixture: ASTM C494/C494M, Type A.
   3. Water Reducing and Set-Adjusting Admixtures: ASTM C494/C494M, Types D and E.
   4. High Range Water-Reducing Admixture: ASTM C494/C494M, Type F/G.
   5. Fly Ash: ASTM C618 Class F or C; loss on ignition less than 3 percent.
   6. Use only admixtures that have been tested and approved in the mix designs.
   7. Do not use calcium chloride or admixtures containing chloride ions.

2.2 CONCRETE MIX

A. Concrete Proportions: Comply with ACI 301, 4.2.

B. Class I Concrete: Provide concrete to the following criteria:
   1. Compressive Strength (7 Day): 3,600 psi.
   2. Compressive Strength (28 Day): 4,500 psi.
   3. Water/Cement Ratio (Maximum): 0.42 by weight.
   4. Air Entrained: 6 percent, ±1 percent.
   5. Fly Ash Content: Maximum 25 percent of cement content.
   6. Slump (Maximum): 3 inches (due to water).
   7. Mid or High Range Water Reducer: Add at Site to increase slump to 6 inches, ±1-1/2 inches.

C. Class II Concrete: Provide concrete to the following criteria:
   Compressive Strength (28 Day): 2,500 psi.
   Fly Ash Content: Maximum 25 percent of cement content.
   Slump (Maximum): 6 inches.

2.3 FORM MATERIALS

A. Provide form materials with sufficient stability to withstand pressure of placed concrete without bow or deflection. CONTRACTOR shall be responsible for designing the formwork system to resist all applied loads including pressures from fluid concrete and construction loads.

B. Smooth Form Surfaces: Acceptable panel-type to provide continuous, straight, smooth, as-cast surfaces in accordance with ACI 301.

C. Unexposed Concrete Surfaces: Material to suit project conditions.

D. Provide 3/4-inch chamfer at all external corners. Chamfer is not required at re-entrant corners unless otherwise shown or indicated.

E. Form Ties:
   1. Provide factory-fabricated, removable, or snap-off metal form ties, that prevent form deflection and prevent spalling of concrete surfaces upon removal. Materials used for tying forms are subject to approval of ENGINEER.
   2. Unless otherwise shown or indicated, provide ties so that portion remaining within concrete after removal of exterior parts is at least 1.5 inches from outer surface of concrete. Unless otherwise shown or indicated, provide form ties that, upon removal, will leave a uniform, circular hole not larger than one-inch diameter in the concrete surface.
   3. Ties for exterior walls, below-grade walls, and walls subject to hydrostatic pressure shall be provided with waterstops.
   4. Wire ties are unacceptable.

F. Form Release Agent: Colorless mineral oil which will not stain concrete or absorb moisture, or impair natural bonding or color characteristics of coating intended for use on concrete including curing compound, sealer, or water-proofing.

2.4 REINFORCING MATERIALS

A. Reinforcing Bars: ASTM A615/A615M, Grade 60 deformed bars.

B. Welded Wire Fabric: ASTM A185/A185M.

C. Steel Wire: ASTM A82/A82M.

D. Provide supports for reinforcing including bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcing in place.

1. Use wire bar-type supports complying with CRSI MSP1 recommendations, except as specified in this Section. Do not use wood, brick, or other unacceptable materials.
2. For slabs on grade, use precast concrete blocks, four inches square minimum with compressive strength equal to or greater than the surrounding concrete, or supports with sand plates or horizontal runners where base materials will not support chair legs.
3. For all concrete surfaces where legs of supports are in contact with forms, provide supports having either hot-dip galvanized, plastic-protected, or stainless steel legs in accordance with CRSI MSP1.
4. Provide precast concrete supports over waterproof membranes.

E. Epoxy Dowels:
1. Dowels: Dowel reinforcing bars shall comply with ASTM A615, Grade 60.
2. Epoxy Adhesive: Two-component epoxy resin bonding system, ASTM C881 Type IV, Grade 3, Class B and C.
   a. Hilti, HIT-RE 500 Adhesive
   b. ITW Ramset/Red Head, Epcon System, Ceramic 6 Epoxy
   c. Simpson Strong Tie, Epoxy Tie SET
   d. Or as approved..

2.5 RELATED MATERIALS

A. Waterstops:
1. PVC Waterstops:
   a. Manufacturers: Provide products of one of the following:
      1) W.R. Meadows, Inc.
      2) Greenstreak Plastic Products Company.
      3) Or equal.
   b. Waterstops shall comply with CRD-C 572. Do not use reclaimed or scrap material.
   c. Minimum Thickness: 3/8-inch.
   d. Provide waterstops with minimum of seven ribs equally spaced at each end on each side with the first rib located at the edge. Each rib shall be minimum 1/8-inch in height.
   e. Construction Joints: Waterstops shall be six-inch wide flat-strip type.

Preformed Plastic Adhesive Waterstop (PPAWS): Federal Specification SS-SS-210A; single component self-sealing plastic adhesive type, extruded rope form between two protective silicone treated papers, 1 inch square cross section, 1 inch lap splice, furnish with primer; Synko-Flex Products Synko-Flex, or as approved.

C. Membrane-Forming Curing Compound: ASTM C309, Type I.

2.7 CEMENT BASE-AGGREGATE COATING

A. Federal Spec. TT-P0035(ARMY-CE); use with bonding agent; Thoro System Products Thoroseal, or as approved.

PART 3 – EXECUTION

3.1 INSPECTION

A. CONTRACTOR shall examine the substrate and the conditions under which the Work will be performed and notify ENGINEER in writing of unsatisfactory conditions. Do not proceed with the Work until unsatisfactory conditions are corrected.

3.2 FORMWORK

A. Construct formwork in accordance with ACI 347 such that concrete members and structures are of correct size, shape, alignment, elevation, and position.

B. Provide openings in formwork to accommodate the Work of other trades. Accurately place and securely support items required to be built into formwork.

C. Clean and adjust forms prior to placing concrete. Apply form release agents or wet forms as required. Re-tighten forms during and after concrete placing, when required, to eliminate cement paste leaks.

D. Removing Formwork:
   1. Comply with ACI 301 and ACI 347, except as otherwise indicated in the Contract Documents.
   2. Do not remove formwork and shoring until supported concrete members have acquired minimum of 90 percent of specified compressive strength. Results of suitable quality control tests of field-cured specimens may be submitted to ENGINEER for review as evidence that concrete has attained sufficient strength for removal of supporting formwork and shoring prior to removal times indicated in the Contract Documents.
   3. Removal time for formwork is subject to ENGINEER's acceptance.
   4. Repair form tie-holes following in accordance with ACI 301.

3.3 REINFORCING, JOINTS, AND EMBEDDED ITEMS

A. Comply with the applicable recommendations of Laws and Regulations and standards referenced in this Section, including CRSI MSP1, for details and methods of placing and supporting reinforcing.

B. Clean reinforcing to remove loose rust and mill scale, earth, ice, and other materials which act to reduce or destroy bond between reinforcing material and concrete.

C. Position, support, and secure reinforcing against displacement during formwork construction and concrete placing. Locate and support reinforcing by means of metal chairs, runners, bolsters, spacers, and hangers, as required.

D. Unless noted otherwise, maintain concrete cover for reinforcement as follows:

Item	**Coverage**
Footings and Concrete Formed Against Earth	3 inch
Slabs on Fill	3 inch
All Other	2 inch

E. Splices: Provide standard reinforcing splices by lapping ends, placing bars in contact, and tying tightly with wire. Lap splices to be a minimum of 40 bar diameters.

F. Do not place concrete until reinforcing is inspected and ENGINEER indicates that conditions are acceptable for placing concrete. Concrete placed in violation of this paragraph will be rejected. Notify ENGINEER in writing at least two working days prior to proposed concrete placement.

G. Joints:
   1. Provide construction joints as indicated or required. Locate construction joints so as to not impair the strength and appearance of the structure.
   2. Locations of joints shall be in accordance with the Contract Documents and as approved by ENGINEER in the Shop Drawings.

H. Installation of Embedded Items: Set and build into the Work anchorage devices and embedded items required for other Work that is attached to, or supported by, cast-in-place concrete. Use setting diagrams, templates, and instructions provided under other Sections and, when applicable, other contracts for locating and setting. Refer to Paragraph 1.1.B of this Section. Do not embed in concrete uncoated aluminum items. Where aluminum items are in contact with concrete surfaces, coat aluminum to prevent direct contact with concrete.

3.4 CONCRETE PLACING

A. Use Class I concrete for structural concrete, and concrete for pavements, sidewalks and equipment bases and use Class II concrete for fillets and fills, and where indicated.

B. Site Mixing: Use drum-type batch machine mixer, mixing not less than 1.5 minutes for one cubic yard or smaller capacity. Increase required mixing time by minimum of 15 seconds for each additional cubic yard or fraction thereof.

C. Ready-Mixed Concrete: Comply with ASTM C94/C94M.

D. Concrete Placing:
   1. Place concrete in a continuous operation within planned joints or sections in accordance with ACI 304R.
   2. Do not begin placing concrete until work of other trades affecting concrete is completed.
   3. Wet concrete and subgrade surfaces to saturated surface dry condition immediately prior to placing concrete.
   4. Deposit concrete as near its final location as practical to avoid segregation due to re-handling or flowing.
   5. Avoid separation of the concrete mixture during transportation and placing. Concrete shall not free-fall for distance greater than four feet during placing.
   6. Complete concrete placing within 90 minutes of addition of water to the dry ingredients.

E. Consolidate placed concrete in accordance with ACI 309R using mechanical vibrating equipment supplemented with hand rodding and tamping, such that concrete is worked around placing and other embedded items and into all parts of formwork. Insert and withdraw vibrators vertically at uniformly-spaced locations. Do not use vibrators to transport concrete within the formwork. Vibration of formwork or placing is not allowed.

F. Protect concrete from physical damage or reduced strength due to weather extremes during mixing, placing, and curing.
   1. In hot weather comply with ACI 305R.
   2. In cold weather comply with ACI 306R.

3.5 QUALITY OF CONCRETE WORK

A. Make concrete solid, compact, smooth, and free of laitance, cracks, and cold joints.

B. Concrete for liquid-retaining structures and concrete in contact with earth, water, or exposed directly to the elements shall be watertight.

C. Cut out and properly replace to extent directed by ENGINEER, or repair to satisfaction of ENGINEER, surfaces that contain cracks or voids, are unduly rough, or are in defective in any way. Patches or plastering are unacceptable.

D. Repair, removal and replacement of defective concrete directed by ENGINEER shall be at no additional cost to CITY.

3.6 CURING

Horizontal Surfaces: Cure floor surfaces in accordance with ACI 301 using any of the following accepted procedures.

Spraying: Spray water over floor slab areas and maintain wet for 7 days.

Absorptive Mat: Saturate burlap-polyethylene and place burlap-side down over floor slab areas, lapping ends and sides; maintain in place for 7 days.

Vertical Surfaces: Cure surfaces using any of the following accepted procedures.

Formwork: Keep forms in place for 7 days.

Membrane Curing Compound.

3.7 FINISHING

A. Slab Finish:

1. Slab surfaces shall receive a float finish. After placing concrete slabs, do not work the surface further until ready for floating. Begin floating when surface water has disappeared or when concrete has stiffened sufficiently. Use a wood float only. Check and level surface plane to a tolerance not exceeding 1/4-inch in ten feet when tested with a ten foot straightedge placed on the surface at not less than two different angles. Cut down high spots and fill low spots. Uniformly slope surfaces to drains. Immediately after leveling, re-float the surface to a uniform, smooth, granular texture.
2. Apply non-slip broom finish in accordance with ACI 5.3.4.2.d after floating to concrete top slabs.

B. Formed Finish:

1. Provide smooth form concrete finish at exposed surfaces. Use largest practical form panel sizes to minimize form joints. Exposed surfaces include interior water-contacting surfaces of tanks, whether or not directly visible. All surfaces shall be considered as exposed, unless buried or covered with permanent structural or architectural material. After removing forms, patch form tie holes and defects in accordance with ACI 301. Remove fins exceeding 1/8-inch in height. Where surface will be coated or will receive further treatment, remove all fins flush with concrete surface.
   a. Exposed Interior Concrete Surfaces: Applied finish of cement-base aggregate type coating; applied to concrete with a smooth form finish; first coat to be by heavy brush at 2 pounds per square yard, second coat at same rate and sponge-floated.

2. Provide rough form finish at all unexposed surfaces. After removing forms, patch form tie holes and defects in accordance with ACI 301. Remove fins exceeding 1/2-inch in height.

3.8 FIELD QUALITY CONTROL

A. Site Testing Services:
   1. CITY will employ testing laboratory to perform field quality control testing for concrete. ENGINEER will direct the testing requirements.
   2. Testing laboratory will provide all labor, material, and equipment required for sampling and testing concrete, including: scale, glass tray, cones, rods, molds, air tester, thermometer, and other incidentals required.
   3. CONTRACTOR shall provide curing and necessary cylinder storage.

B. Quality Control Testing During Construction:
   1. Perform sampling and testing for field quality control during concrete placing, as follows:
      a. Sampling Fresh Concrete: ASTM C172.
      b. Slump: ASTM C143/C143M; one test for each concrete load at point of discharge.
      c. Concrete Temperature: ASTM C1064/C1064M; one for every two concrete loads at point of discharge, and when a change in the concrete is observed. Test each load when time from batching to placement exceeds 75 minutes.
      d. Air Content: ASTM C231; one for every two concrete load at point of discharge, and when a change in the concrete is observed.
      e. Unit Weight: ASTM C138/C138M; one for every two concrete loads at point of discharge, and when a change in the concrete is observed.
      f. Compression Test Specimens:
         1) In accordance with ASTM C31/C31M, make one set of compression cylinders for each 50 cubic yards of concrete, or fraction thereof, of each mix design placed each day. Each set shall be four standard cylinders, unless otherwise directed by ENGINEER.
         2) Cast, store, and cure specimens in accordance with ASTM C31/C31M.
      g. Compressive Strength Tests:
         1) In accordance with ASTM C39/C39M; one specimen tested at seven days, and three specimens tested at 28 days.
         2) Concrete that does not comply with strength requirements will be considered as defective Work.
      h. Within 24 hours of completion of test, testing laboratory will transmit certified copy of test results to CONTRACTOR and ENGINEER.
      i. When there is evidence that strength of in-place concrete does not comply with the Contract Documents, CONTRACTOR shall employ the services of concrete testing laboratory to obtain cores from hardened concrete for compressive strength determination. Cores and tests shall comply with ASTM C42/C42M and the following:

C. Those parts of a structure which will contain water during service shall be substantially water-tight and tested according to ACI 350.1-06, except as modified

by the following. The structure must meet a water tightness criteria designation of HST-050 as defined in ACI 350.1, 2.1.1.

1. No backfilling shall be permitted around tank unless authorized by ENGINEER prior to the water test.
2. The tank shall not be tested before all the structure is complete and the concrete has reached the specified compressive strength indicated by field cured cylinder breaks, or as authorized by ENGINEER.
3. Repair all cracks and defects which impair water-tightness and eliminate any leakage into or out of the structure.
4. Tank penetrations, pipe, channel, and conduit outlets shall be monitored before and during the test to determine the water-tightness of these appurtenances. Leakage at these outlets shall be repaired prior to test measurements. No allowance shall be made in test measurements for uncorrected known points of leakage.
5. The ground water level shall be brought to a level below the top of the base slab and kept at that elevation or at a lower elevation during the test period.
6. The initial filling of a new tank should not exceed a rate of 4 feet per hour. Filling shall be continued until the water surface is at the design maximum liquid level or 4 inches below any fixed overflow lever, whichever is lower.
7. Water shall be kept at the test level for at least 36 hours prior to the actual test.
8. The exterior surfaces of the tank shall be inspected during the period of filling the tank. If any flow of water is observed from the tank exterior surfaces, including joints or cracks, the defect causing the leakage shall be repaired prior to testing.
9. The test measurements shall not be scheduled for a period when the forecast is for a substantial change in weather pattern that would result in more than 35 degrees F difference in surface temperature from the initial and final temperature measurements.
10. The test shall not be scheduled when the weather forecast indicates the water surface would be frozen before the test is completed.
11. Water level shall be measured vertically from a fixed point on the tank above the water surface. Measurements shall be taken at 2 locations 180 degrees apart every 24 hours during the test period.
12. Water temperature shall be recorded at a depth of 18 inches below the water surface at the same time and location the water level is measured.
13. Provide two calibrated, open-topped prismatic containers for evaporation and precipitation measurement. The containers must be retrained and floating in the water surface involved in the test. The containers are to be used in open-topped or well-ventilated tanks being tested.
14. The test period shall be calculated as follows, but shall not exceed 5 days:

    62.5/H, where H = average height of water surface, measured in feet.

15. At the end of the test period, the water surface shall be recorded at the location of the original measurements. The water temperature, evaporation, and precipitation measurements shall be recorded.
16. A restart of the test shall be required when test measurements become unreliable due to the unusual precipitation of other external factors.
17. A leak test failure occurs when the tank loses more than 0.05 percent of its volume in 24 hours during the test period. A failure also includes observed flowing or seeping from the tank or if moisture can be transferred from the exterior surface to a dry hand. Dampness or wetness on top of the footing, in the absence of flowing water, shall be acceptable.
18. Upon completion of repairs, thoroughly clean and disinfect, if required, the affected areas. Repeat water-tightness test until the above specified water-tightness is achieved or ENGINEER's approval is obtained.

+ + END OF SECTION + +

SECTION 03 60 00

GROUTING

PART 1 – GENERAL

1.1 DESCRIPTION

A. Scope:
   1. CONTRACTOR shall provide all labor, materials, equipment, and incidentals as shown, specified, and required to furnish and install grout and perform grouting Work.

B. Coordination:
   1. Review installation procedures under this and other Sections and coordinate installation of items to be installed with or before grouting Work.

C. Related Sections:
   1. Section 03 00 05, Concrete.

D. Application and Grout Material:
   1. The following is a listing of grouting applications and the corresponding type of grout material to be provided for the associated application. Unless shown or indicated otherwise in the Contract Documents, provide grout in accordance with the following:

TABLE 03 60 00-A, GROUT APPLICATIONS AND MATERIAL TYPES

Application	Required Grout Material Type
Filling blockout spaces for embedded items such as guide frames for hydraulic gates, and similar applications	Class II Non-Shrink (Class I where placement time exceeds 15 minutes)
Applications not listed above, where grout is indicated on the Drawings	Class I Non-Shrink, unless shown or indicated otherwise

1.2 REFERENCES

A. Standards referenced in this Section are:
   1. ACI 211.1, Practice for Selecting Proportions for Normal, Heavyweight, and Mass Concrete.
   2. ACI 301, Structural Concrete for Buildings.
   3. ASTM C33/C33M, Specification for Concrete Aggregates.
   4. ASTM C109/C109M, Test Method for Compressive Strength of Hydraulic Cement Mortars (Using 2-in. or [50-mm] Cube Specimens).

5. ASTM C230/C230M, Specification for Flow Table for Use in Tests of Hydraulic Cement.
6. ASTM C531, Test Method for Linear Shrinkage and Coefficient of Thermal Expansion of Chemical-Resistant Mortars, Grouts, Monolithic Surfacings, and Polymer Concretes.
7. ASTM C579, Test Methods for Compressive Strength of Chemical-Resistant Mortars, Grouts, Monolithic Surfacings, and Polymer Concretes.
8. ASTM C827, Test Method for Change in Height at Early Ages of Cylindrical Specimens of Cementitious Mixtures.
9. ASTM C882/C882M, Test Method for Bond Strength of Epoxy-Resin Systems Used With Concrete By Slant Shear.
10. ASTM C939, Text Method for Flow of Grout for Preplaced-Aggregate Concrete (Flow Cone Method).
11. ASTM C1107/C1107M, Specification for Packaged Dry, Hydraulic-Cement Grout (Nonshrink).
12. ASTM C1181, Test Methods for Compressive Creep of Chemical-Resistant Polymer Machinery Grouts.
13. NSF/ANSI 61, Drinking Water System Components - Health Effects.

1.3 QUALITY ASSURANCE

A. Qualifications:
   1. Grout Testing Laboratory:
      a. Independent testing laboratory employed for design and testing of grout materials and mixes shall comply with testing laboratory requirements in Section 03 00 05, Concrete and other applicable requirements in the Contract Documents.
   2. Manufacturer: Shall have a minimum of five years experience of producing products substantially similar to that required and shall be able to submit documentation of at least five satisfactory installations that have been in successful operation for at least five years each.
   3. Manufacturer's Field Service Technician: When required, provide services of manufacturer's full-time employee, factory-trained in handling, use, and installing the products required, with at least five years of experience in field applications of the products required.

B. Trial Batch:
   1. Each grout fill and construction joint grout mix proportion and design shall be verified by laboratory trial batch or field experience methods. Comply with ACI 211.1 and submit to ENGINEER a report with the following data:
      a. Complete identification of aggregate source of supply.
      b. Tests of aggregates for compliance with specified requirements.
      c. Scale weight of each aggregate.
      d. Absorbed water in each aggregate.
      e. Brand, type, and composition of cement.

f. Brand, type, and amount of each admixture.
g. Amounts of water used in trial mixes.
h. Proportions of each material per cubic yard.
i. Unit weight and yield per cubic yard of trial mixtures.
j. Measured slump.
k. Measured air content.
l. Compressive strength developed at seven days and 28 days, from not less than three test specimens cast for each seven-day and 28-day test, and for each design mix.

2. Laboratory Trial Batches: When laboratory trial batches are used to select grout proportions, prepare test specimens and conduct strength tests as specified in ACI 301.
3. Field Experience Method: When field experience methods are used to select grout proportions, establish proportions as specified in ACI 301.

1.4 SUBMITTALS

A. Action Submittals: Submit the following:
1. Shop Drawings:
a. Schedule of Project-specific grout applications, installation locations, and the grout type proposed for each.
b. List of grout materials and proportions for the proposed mix designs. Include data sheets, test results, certifications, and mill reports to qualify the materials proposed for use in the mix designs. Do not start laboratory trial batch testing until submittal is approved by ENGINEER.
c. Trial Batch Reports: Submit laboratory test reports for grout materials and mix design tests.
2. Product Data:
a. Data sheets, certifications, and manufacturer's specifications for all materials proposed for use.

B. Informational Submittals: Submit the following:
1. Manufacturer's Instructions:
a. Special instructions for shipping, storing, protecting, and handling.
b. Installation instructions for the materials.
2. Field Quality Control Submittals:
a. Report field testing results for each required time period. (e.g., seven-day tests, 28-day tests). Submit within 24 hours after completion of associated test. Each test report shall include results of all testing required at time of sampling.
3. Supplier Reports:
a. Submit written report of results of each visit to Site by Supplier's field service technician, including purpose and time of visit, tasks performed, and results obtained. Submit within two days of completion of visit to the Site.

4. Qualifications Statements:
   a. Testing laboratory, when not submitted under other Sections.
   b. Manufacturer, when submittal of qualifications is required by ENGINEER.
   c. Manufacturer's field service technician, when submittal of qualifications is required by ENGINEER.

1.5 PRODUCT DELIVERY, STORAGE AND HANDLING

A. Storage of Materials: Store grout materials in a dry location, protected from weather and protected from moisture.

PART 2 – PRODUCTS

2.1 NON-SHRINK GROUT MATERIALS

A. General: Non-shrink grout shall be a prepackaged, inorganic, flowable, non-gas-liberating, non-metallic, cement-based grout requiring only the addition of water. Manufacturer's instructions shall be printed on each bag or container in which the materials are packaged. Specific formulation for each type or class of non-shrink grout specified in this Section shall be that recommended by the grout manufacturer for the particular application.

B. Class I Non-Shrink Grout:
   1. Class I non-shrink grouts shall have a minimum 28-day compressive strength of 7,000 psi. Use grout for precision grouting and where water-tightness and non-shrink reliability in both plastic and hardened states is critical, in accordance with Table 03 60 00-A in this Section.
   2. Products and Manufacturer: Provide one of the following:
      a. Masterflow 928, by Master Builders, Inc.
      b. Five Star Grout, by Five Star Products, Inc.
      c. Hi-Flow Grout, by Euclid Chemical Company.
      d. Or equal.
   3. Comply with ASTM C1107/C1107M, Grade C and B (as modified below) when tested using amount of water required to achieve the following properties:
      a. Fluid consistency (20 to 30 seconds) shall be in accordance with ASTM C939.
      b. At temperatures of 45, 73.4, and 95 degrees F.
   4. Length change from placing to time of final set shall not have shrinkage greater than the expansion measured at three or fourteen days. Expansion at three or fourteen days shall not exceed the 28-day expansion.
   5. Non-shrink property shall not be based on chemically-generated gas or gypsum expansion.

6. Fluid grout shall pass through the flow cone, with continuous flow, one hour after mixing.

C. Class II Non-Shrink Grout:
   1. Class II non-shrink grouts shall have minimum 28-day compressive strength of 7,000 psi. Use grout for general-purpose grouting applications in accordance with Table 03 60 00-A in this Section.
   2. Products and Manufacturer: Provide one of the following:
      a. Construction Grout, by Master Builders, Inc.
      b. FSP Construction Grout, by Five Star Products, Inc.
      c. NS Grout, by Euclid Chemical Company.
      d. Or equal.
   3. Comply with ASTM C1107/C1107M and the following when tested using the quantity of water required to achieve the following properties:
      a. Flowable consistency (140 percent flow in accordance with ASTM C230/C230M, five drops in 30 seconds).
      b. Fluid working time of at least 15 minutes.
      c. Flowable for at least 30 minutes.
   4. When tested, grout shall not bleed at maximum allowed water.
   5. Non-shrink property shall not be based on chemically-generated gas or gypsum expansion.

2.2 CURING MATERIALS

A. Curing materials shall comply with Section 03 00 05, Concrete, and shall be as recommended by the manufacturer of prepackaged grouts.

PART 3 – EXECUTION

3.1 INSPECTION

A. Examine substrate and conditions under which grouting will be performed and notify ENGINEER in writing of unsatisfactory conditions. Do not proceed with the Work until unsatisfactory conditions are corrected.

3.2 INSTALLATION

A. General:
   1. Place grout as shown and indicated, and in accordance with Laws and Regulations and grout manufacturer's instructions. If manufacturer's instructions conflict with the Contract Documents, obtain clarification or interpretation from ENGINEER before proceeding.
   2. Consistency of non-shrink grouts shall be as required to completely fill the space to be grouted for the particular application. Do not install grout for dry-

packing without approval of ENGINEER. When dry-packing is approved by ENGINEER, dry-pack consistency shall be such that grout has sufficient water to ensure hydration and grout strength development, and remains plastic, moldable, and that does not flow.

3. Grouting shall comply with temperature and weather limitations in Section 03 00 05, Concrete.
4. Cure grout in accordance with grout manufacturer's instructions for prepackaged grout and Section 03 00 05, Concrete, for grout fill.

3.3 FIELD QUALITY CONTROL

A. Field Testing Services:
   1. CONTRACTOR shall employ an independent testing laboratory to perform field quality control testing for grout. ENGINEER will direct where samples are to be obtained.
   3. Comply with testing laboratory requirements in Section 03 00 05, Concrete for required testing laboratory qualifications.

B. Quality Control Testing During Construction:
   1. Grout Fill: Perform sampling and testing for field quality control during grout fill placing as follows:
      a. Sampling Fresh Grout Fill: ASTM C172.
      b. Slump: ASTM C143; one test for each load of grout at point of discharge.
      c. Air Content: ASTM C231; one sample for every two grout loads at point of discharge, and when a change in the grout is observed.
      e. Compression Test Specimens:
         1) In accordance with ASTM C109/C109M; make one set of compression cubes for each 50 cubic yards of grout, or fraction thereof, of each mix design placed each day. Each set shall be four standard cubes, unless otherwise directed by ENGINEER.

C. Evaluation of Field Quality Control Tests:
   1. Do not use grout, delivered to final point of placement, having slump or total air content that does not comply with the Contract Documents.
   2. Compressive strength tests for laboratory-cured cubes will be acceptable if averages of all sets of three consecutive compressive strength test results equal or exceed the required 28-day design compressive strength of the associated type of grout.
   3. If the compressive strength tests do not comply with the requirements in the Contract Documents, the grout represented by such tests will be considered defective and shall be removed and replaced, or subject to other action required by ENGINEER, at CONTRACTOR's expense.

D. Manufacturer's Services:

1. Manufacturers of proprietary materials shall make available upon 72 hours notification the services of qualified, full time employee, experienced in serving as a field service technician for the products required, to aid in assuring proper use of products under the actual conditions at the Site.

+ + END OF SECTION + +

SECTION 05 54 63

FLOOR ACCESS HATCH COVERS

PART 1 – GENERAL

1.1 DESCRIPTION

A. Scope:
   1. CONTRACTOR shall provide all labor, materials, equipment and incidentals as shown, specified and required to furnish and install floor access hatch covers.
   2. The Work also includes:
      a. Providing openings in and attachments to floor access hatch covers to accommodate the Work under this and other Sections, and providing for floor access hatch covers items such as anchorage devices, and all items required for which provision is not specifically included under other Sections.

B. Coordination:
   1. Review installation procedures under this and other Sections and coordinate the installation of items to be installed with or before floor access hatch covers Work.

C. Related Sections:
   1. Section 09 91 00, Painting.

1.2 REFERENCES

A. Standards referenced in this Section:
   1. AASHTO Standard Specifications for Highway Bridges.
   2. MIL-P-21035B, Military Specification, Paint, High Zinc Dust Content Galvanizing Repair.

1.3 QUALITY ASSURANCE

A. Qualifications:
   1. Manufacturer:
      a. Manufacturer shall have not less than five years experience producing products substantially similar to those specified and, upon ENGINEER's request, shall submit documentation of not less than five satisfactory installations in place for not less than five years each.

B. Component Supply and Compatibility:
   1. Obtain all products included in this Section regardless of the component manufacturer from a single floor access hatch covers manufacturer. Furnishing covers from more than one manufacturer is unacceptable.
   2. Floor access hatch covers manufacturer shall prepare, or shall review and approve, all Shop Drawings and other submittals for all components furnished under this Section.
   3. Components shall be suitable for specified service conditions and shall be integrated into the overall assembly by the floor access hatch covers manufacturer.

1.4 SUBMITTALS

A. Action Submittals: Submit the following:
   1. Shop Drawings:
      a. Detailed plans and other drawings showing location of products and direction of door swing; floor access hatch cover schedules indicating cover location, material, type, loading capacity, and other information; and fabrication details for the access hatch covers Work, including materials, thickness of metals, finishes, latching or locking provisions, type of anchorages, and accessory items.
   2. Product Data:
      a. Copies of manufacturer's literature and specifications for each type of floor access hatch incorporated in the Work.

B. Informational Submittals: Submit the following:
   1. Supplier Instructions:
      a. Installation data, including setting drawings and templates.

1.4 DELIVERY, STORAGE AND HANDLING

A. Packing and Shipping:
   1. Protect mill finish and other finish during shipping and installation by an attached, adhesive-backed vinyl material that is removable during and after installation of the access hatch cover.

B. Storage and Protection:
   1. Protect steel members and packaged materials from corrosion and deterioration.

1.5 WARRANTY

A. General Warranty: The special warranty specified in this Article shall not deprive CITY of other rights or remedies CITY may otherwise have under the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by CONTRACTOR under the Contract Documents. The obligations of

CONTRACTOR under the Contract Documents shall not be limited in any way by the provisions of the specified special warranty.

B. Special Warranty:
   1. Provide manufacturer's written warranty, running to the benefit of CITY, agreeing to correct, or at option of CITY, remove or replace structural components of the products specified in this Section found to have defect in material and workmanship during a period of five years after the date of Substantial Completion.

PART 2 – PRODUCTS

2.1 GENERAL

A. General:
   1. Provide manufacturer's standard fabricated access hatch cover units, modified when necessary to comply with the Contract Documents. Where standard units are not available for the sizes and types required, provide custom-fabricated units of the same quality as manufacturer's similar standard-sized units.
   2. Fabricate each access hatch cover unit in the shop, complete with anchors, gaskets, hardware, and accessory items, as required.

B. Provide floor access hatch covers in accordance with Table 05 54 63-A, Floor Access Hatch Covers Schedule:

TABLE 05 54 63-A, FLOOR ACCESS HATCH COVERS SCHEDULE

Hatch No.	Size		Material	Leaf Type	Frame Type	Remarks
	Width (inches)	Length[1] (inches)				
1	30	30	Aluminum	Single	Channel	ESI Vault
2	48	36	Aluminum	Double	Channel	ESI Vault
3	30	30	Aluminum	Single	Channel	WSI Vault
4	48	36	Aluminum	Double	Channel	WSI Vault

Notes:
1. On single-leaf floor access hatches, length includes the hinge side.

2.2 CHANNEL-FRAME TYPE ACCESS HATCH COVERS

A. Aluminum Floor Access Hatch Covers (H-20 Loading) – Channel Frame Type:
   1. Design Live Load: H-20 truck loading in accordance with AASHTO Standard Specifications for Highway Bridges, intended for use in off-street locations that may occasionally be subject to H-20 wheel loads.
   2. Products and Manufacturers: Provide one of the following:

a. Single-Leaf Door Aluminum Access Hatch Cover:
   1) Model THS, by U.S.F Fabrication.
   2) Type J-AL H-20, by The Bilco Company.
   3) Model BFDNHA_X_SAL, by Babcock-Davis.
   4) Or equal.
b. Double-Leaf Door Aluminum Access Hatch Cover:
   1) Model THD, by U.S.F Fabrication.
   2) Type JD-AL H-20, by The Bilco Company.
   3) Model BFDNHA_X_DAL, by Babcock-Davis.
   4) Or equal.

3. Cover: Not less than 1/4-inch thick, aluminum diamond-pattern plate cover with stiffener plates, as required. Provide flush drop-handle for lifting the cover.
4. Frame: Extruded aluminum channel frame with manufacturer's standard anchor tabs or continuous anchor flange around the perimeter for anchorage to concrete.
5. Drain Coupling: 1.5-inch diameter NPT threaded drain coupling welded under the channel frame for connection of a drain pipe.
6. Gasket: EPDM gasket mechanically attached to the channel frame.
7. Hinges: Type 316 stainless steel, heavy-duty butt hinges with Type 316 stainless steel pin fastened to door with Type 316 stainless steel tamper resistant bolts.
8. Latch: Type 316 stainless steel, watertight, slam-type latch with inside lever handle and outside removable exterior turn/lift handle fastened to leaf (door) with tamper-resistant Type 316 stainless steel bolts. Latch release shall be protected by a flush, gasketed, removable screw plug.
9. Lift Assistance: Open-style stainless steel compression springs with Type 316 stainless steel guide tubes. Automatic Type 316 stainless steel hold-open arm with grip handle release.
10. Finish: Mill finish.

PART 3 – EXECUTION

3.1 INSPECTION

A. Examine areas and conditions under which floor access hatch cover Work will be performed and notify ENGINEER in writing of conditions detrimental to proper and timely completion of the Work. Do not proceed with the Work until unsatisfactory conditions are corrected.

3.2 INSTALLATION

A. Install floor access hatch covers in accordance with approved Shop Drawings and other approved submittals, the Contract Documents, and manufacturer's instructions.

B. Set floor access hatch covers level and true to line or grade, without warp or rack.

C. Drain Piping for Channel Frames:
   1. Provide drain piping from the floor access match cover channel frame routed as shown or indicated on the Drawings.
   1. Provide drain piping from the floor access hatch cover channel frame and route in a manner that does not obstruct access for facility operations and maintenance.
   2. After installation, fill drain piping with water. Drain piping shall be free of visible leaks.

D. Protection of Aluminum from Dissimilar Materials: Coat surfaces of aluminum in contact with dissimilar materials such as concrete, masonry, steel, and other metals in accordance with Section 09 91 00, Painting.

3.3 ADJUSTING AND CLEANING

A. Adjust leafs of floor access hatch covers as necessary to provide proper operations.

B. Remove stains, concrete splatter, oils, grease, and other foreign materials necessary and provide clean, finished surfaces.

+ + END OF SECTION + +

SECTION 09 91 00

PAINTING

PART 1 - GENERAL

1.1 DESCRIPTION

A. Scope:
   1. CONTRACTOR shall provide all labor, materials, tools, equipment, and incidentals as shown, specified, and required to furnish and apply paint systems.
      a. CONTRACTOR is responsible for surface preparation and painting of all new and existing interior and exterior items and surfaces throughout the Project areas included under this and other Sections.
   2. Extent of painting includes the Work specified below. Painting shown in schedules may not provide CONTRACTOR with complete indication of all painting Work. Refer to Article 2.2 of this Section where all surfaces of generic types specified are specified for preparation and painting according to their status, intended function, and location, using the painting system for that surface, function, and location as specified, unless specifically identified on the Drawings as a surface not to receive specified painting system.
      a. All new and specifically identified existing surfaces and items except where the natural finish of the material is specified as a corrosion-resistant material not requiring paint; or is specifically indicated in the Contract Documents as a surface not to be painted. Where items or surfaces are not specifically mentioned, paint them the same as adjacent similar materials or areas.

B. Coordination:
   1. Review installation, removal, and demolition procedures under other Sections and coordinate them with the Work specified in this Section.
   2. Coordinate painting of areas that will become inaccessible once equipment, similar fixed items have been installed.
   3. Coordinate primers with finish paint materials to provide primers that are compatible with finish paint materials. Review other Sections and other contracts where primed surfaces are provided, to ensure compatibility of total painting system for each surface. CONTRACTOR is responsible for coordinating compatibility of all shop primed and field painted items in other Sections and in general contract and other contracts.
   4. Furnish information to ENGINEER on characteristics of finish materials proposed for use and ensure compatibility with prime coats used. Provide barrier coats over incompatible primers or remove and repaint as required.

Notify ENGINEER in writing of anticipated problems using specified painting systems with surfaces primed by others. Reprime equipment primed in factory and other factory-primed items that are damaged or scratched.

C. Related Sections:
   1. Section 05 54 63, Floor Access Hatch Covers.
   2. Section 43 26 23, Stainless Steel Slide Gates.

D. Work Not Included: The following Work is not included as painting Work, or are included under other Sections or in other contracts:
   1. Shop Priming: Shop priming of structural metal, miscellaneous metal fabrications, other metal items and fabricated components such as shop-fabricated or factory-painted process equipment, plumbing equipment, heating and ventilating equipment, electrical equipment, and accessories shall conform to applicable requirements of this Section but are included under other Sections or in other contracts.

E. Description of Colors and Finishes:
   1. Color Selection:
      a. ENGINEER reserves the right to select non-standard colors for paint systems specified within ability of paint manufacturer to produce such non-standard colors. Provide such colors at no additional expense to CITY.

F. Abbreviations and Symbols:
   1. Abbreviations and symbols used in painting systems are explained in Article 2.2 of this Section and provide information on generic composition of required materials, manufacturers, number of coats and dry mil film thickness per coat (DMFTPC), and coverage for determining required number of gallons for the Work.

1.2 REFERENCES

A. Referenced Standards: Standards referenced in this Section are:
   1. ANSI Z535.1, Safety Color Code.
   2. ASTM D16, Terminology for Paint, Related Coatings, Materials and Applications.
   3. ASTM D2200, Pictoral Surface Preparation Standards for Painting Steel Surfaces.
   4. ASTM D4258, Practice for Surface Cleaning Concrete for Coating.
   5. ASTM D4259, Practice for Abrading Concrete.
   6. ASTM D4263, Test Method for Indicating Moisture in Concrete by the Plastic Sheet Method.
   7. ASTM D4285, Test Method for Indicating Oil or Water in Compressed Air.

8. ASTM D4417, Test Methods for Field Measurement of Surface Profile of Blast Cleaned Steel.
9. ASTM D4541, Test Methods for Pull-Off Strength of Coatings Using Portable Adhesion-Testers.
10. ASTM E329, Specification for Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction.
11. Ozone Transport Commission, (OTC), OTC Model Rule for Architectural and Industrial Maintenance Coatings.
12. SSPC PA 2, Measurement of Dry Coating Thickness with Magnetic Gages.
13. SSPC SP 1, Solvent Cleaning.
14. SSPC SP 3, Power Tool Cleaning.
15. SSPC SP 6, Commercial Blast Cleaning.
16. SSPC SP 10, Near-White Blast Cleaning.
17. SSPC SP 11, Power Tool Cleaning To Bare Metal.
18. SSPC VIS 1, Visual Standard for Abrasive Blast Cleaned Steel.
19. SSPC VIS 2, Method of Evaluating Degree of Rusting/Painted Steel Surfaces.
20. SSPC Volume 2, Systems and Specifications.

1.3 DEFINITIONS

A. Standard coating terms defined in ASTM D16 apply to this Section, including:
   1. Paint: Pretreatment and all painting system materials, such as primer, emulsion, enamel, organic/inorganic polymer coating, stain sealer and filler, and other applied materials whether used as prime, filler, intermediate, or finish coats.
   2. Exposed: All items not covered with cement plaster, concrete, or fireproofing. Items covered with these materials shall be provided with specified primer only, except where specified as a surface not to be painted. Exposed-to-view surfaces include areas visible after permanent or built-in fixtures, convector covers, ceiling tile, covers for finned tube radiation, grilles, and similar covering products are in areas scheduled to be painted.
   3. Low VOC: All interior and exterior field-applied coatings that have maximum VOC content as listed in OTC Model Rule for Architectural and Industrial Maintenance Coatings.
   4. OTC: Ozone Transport Commission, which recommends standard VOC content levels in several Northeastern and Mid-Atlantic states.

1.4 QUALITY ASSURANCE

A. Applicator Qualifications:
   1. Engage a single applicator that regularly performs installation of paint materials, with documented skill and successful experience in installing types of products required and that agrees to employ only trained, skilled tradesmen who have successful experience in installing types of products specified.
   2. Submit name and qualifications to ENGINEER along with following information for at least three successful, completed projects:

a. Names and telephone numbers of owner and design professional responsible for project.
b. Approximate contract cost of paint products.
c. Amount of area painted.

3. Submit to ENGINEER proof of acceptability of applicator by manufacturer.

D. Regulatory Requirements:
1. Comply with VOC content limits of Ozone Transport Commission (OTC), Model Rule for Architectural and Industrial Maintenance Coatings.

1.5 SUBMITTALS

A. Action Submittals: Submit the following:
1. Product Data:
a. Copies of manufacturer's technical information and test performance data, including paint analysis, VOC and chemical component content in comparison to maximum allowed by the Contact Documents, and application instructions for each product proposed for use.
b. Submit proof of acceptability of proposed application techniques by paint manufacturer selected.
c. Copies of CONTRACTOR's proposed protection procedures in each area of the Work explaining methods of protecting adjacent surfaces from splatter, for confining application procedures in a manner that allows other work adjacent to surface preparation and painting Work to proceed safely and without interruption, and for maintaining acceptable application, curing, and environmental conditions during and after painting systems application.
d. List each material and cross-reference to the specific painting system and application, including a list of site-specific surfaces to which painting system will be applied. Identify by manufacturer's catalog number and general classification. State number of gallons of each product being purchased for delivery to Site and square foot area calculated to be covered by each painting system specified based on theoretical loss of 20 percent. Where actual area to be covered by paint system exceeds area submitted to ENGINEER for that system, proof of additional material purchase shall be provided to ENGINEER. Calculated coverage shall be as specified for each component of each painting system specified. This requirement does not take precedence over CONTRACTOR's responsibility to provide dry film thickness required for each component of each painting system.
e. Identify maximum exposure times allowable for each paint system component before next coat of paint can be applied. Submit proposed methods for preparing surfaces for subsequent coats if maximum exposure times are exceeded.

f. Information on curing times and environmental conditions that affect curing time of each paint system component and proposed methods for accommodating variations in curing time. Identify this information for each painting system in the Work.

g. Specification for spray equipment with cross-reference to paint manufacturer's recommended equipment requirements.

2. Samples:

a. Copies of manufacturer's complete color charts for each coating system.

B. Informational Submittals: Submit the following:

1. Certificates:

a. Certificate from paint manufacturer stating that materials meet or exceed Contract Documents requirements.

b. CONTRACTOR shall provide notarized statement verifying that all painting systems are compatible with surfaces specified. All painting systems components shall be reviewed by an authorized technical representative of paint manufacturer for use as a compatible system. Verify that all painting systems are acceptable for exposures specified and that paint manufacturer is in agreement that selected systems are proper, compatible, and are not in conflict with paint manufacturer's recommended specifications. Show by copy of transmittal form that a copy of letter has been transmitted to paint applicator.

2. Test Reports:

a. Certified laboratory test reports for required performance and analysis testing in compliance with ASTM E329.

b. Proposed methods for testing, handling, and disposal of waste generated during Work.

c. Results of alkalinity and moisture content tests performed in accordance with ASTM D4262 and ASTM D4263.

d. Results of tests of film thickness, holidays, and imperfections.

3. Manufacturer's Instructions: Provide paint manufacturer's storage, handling, and application instructions prior to commencing painting Work at Site.

5. Special Procedure Submittals:

a. Site-specific health and safety plan.

b. Procedures for maintaining acceptable application, curing and environmental conditions during and after painting systems application.

c. Procedures for providing adequate lighting, ventilation, and personal protection equipment relative to painting Work.

6. Qualifications:

a. Applicator.

C. Closeout Submittals: Submit the following:

1. Maintenance Manual: Upon completion of the painting Work, furnish ENGINEER five copies of detailed maintenance manual including the following information:

a. Complete and updated product catalog of paint manufacturer's currently available products including complete technical information on each product. Identify product names and numbers of each product used in the painting Work.
b. Name, address, e-mail address and telephone number of manufacturer, local distributor, applicator and technical representative.
c. Detailed procedures for routine maintenance and cleaning.
d. Detailed procedures for light repairs such as dents, scratches and staining.

2. Statement of Application: Upon completion of the painting Work, submit a notarized statement to ENGINEER signed by CONTRACTOR and painting applicator stating that Work complies with requirements of the Contract Documents and that application methods, equipment, and environmental conditions were proper and adequate for conditions of installation and use.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Product Delivery Requirements: Deliver products to Site in original, new, and unopened packages and containers, accurately and legibly and accurately labeled with the following:
1. Container contents, including name and generic description of product.
2. Manufacturer's stock number and date of manufacture.
3. Manufacturer's name.
4. Contents by volume, for major pigment and vehicle constituents.
5. Grams per liter of volatile organic compounds.
6. Thinning instructions, where recommended.
7. Application instructions.
8. Color name and number.

B. Product Storage Requirements:
1. Store acceptable materials at Site.
2. Store in an environmentally controlled location as recommended in paint manufacturer's written product information. Keep area clean and accessible. Prevent freezing of products.
3. Store products that are not in actual use in tightly covered containers.
4. Comply with health and fire regulations of authorities having jurisdiction at Site.

C. Product Handling Requirements:
1. Handle products in a manner that minimizes the potential for contamination, or incorrect product catalyzation.
2. Do not open containers or mix components until necessary preparatory work has been completed and approved by ENGINEER and painting Work will start immediately.
3. Maintain containers used in storing, mixing, and applying paint in a clean condition, free of foreign materials and residue.

1.7 SITE CONDITIONS

A. Site Facilities:
   1. Supplemental heat sources, as required to maintain both ambient and surface temperatures within range recommended by paint manufacturer for paint system application, are not available at Site.
   2. Provision of supplemental heat energy sources, power, equipment, and operating, maintenance and temperature monitoring personnel is responsibility of CONTRACTOR.
   3. Do not use heat sources that emit carbon dioxide or carbon monoxide into areas being painted. Properly locate and vent such heat sources to exterior such that paint systems are unaffected by exhaust.

C. Environmental Requirements:
   1. Comply with manufacturer's published requirements.

D. Protection:
   1. Cover or otherwise protect finished work of other trades and surfaces not being painted concurrently, or not to be painted.
   2. Coordinate and schedule surface preparation and painting to avoid exposing personnel to hazards associated with painting Work. Provide required personnel safety equipment per requirements of authorities having jurisdiction at Site.
   3. Submit protection procedures to be employed. Do not begin surface preparation and painting Work until ENGINEER accepts protection techniques proposed by CONTRACTOR.

PART 2 - PRODUCTS

2.1 PAINTING SYSTEM MANUFACTURERS

A. Products and Manufacturers: Where referenced under painting systems provide products manufactured by the following:
   1. Tnemec Company, Inc. (TCI).
   2. The Carboline Company, part of StonCor Group, an RMP Company (TCC).
   3. Sherwin-Williams Company (SWC).
   4. Or equal.

2.2 PAINTING SYSTEMS

A. New and Existing Ferrous Metals, Non-Ferrous Metals and Exterior Surfaces; Submerged or Intermittently Submerged, including up to 4.0 above liquid surface; Interior and Exterior:

1. Surface Preparation: Refer to Paragraphs 1.5.A.2., 3.2.A., 3.2.B.1., and 3.2.B.2.
2. Factory Primer:
   a. Generic Components:
      1) Minimum 67 percent solids, two-component, cycloaliphatic amine-catalyzed epoxy or polyamido-amine epoxy; 334 grams per liter VOC, maximum.
   b. Products and Manufacturers: Provide one of the following:
      1) Series N69 Hi-Build Epoxoline (TCI); Carboguard 954 HB (TCC); Macropoxy HS Epoxy (SWC): One coat, 4.0 dry mils.
3. Shop Prime/Touch-Up/Finish, Satin:
   a. Generic Components:
      1) Minimum 100 percent volume solids, high-build, two-component, polyamide-catalyzed epoxy or polyamido-amine epoxy; 10 grams per gallon VOC, maximum.
   b. Products and Manufacturers: Provide one of the following:
      1) Series N69 Hi-Build Epoxoline (TCI); Carboguard 890 LT (TCC); Dura-Plate UHS (SWC): Three coats, 8.0 to 15.0 dry mils, per coat.

B. New and Existing Steel Surfaces; Interior and Exterior:
1. Surface Preparation: Refer to Paragraphs 1.5.A.2., 3.2.A., 3.2.B.1., 3.2.B.2.
2. Primer:
   a. Generic Components:
      1) Minimum 100 percent volume solids, high-build, two-component, polyamido-amine or polyamine epoxy; 49 grams per gallon VOC, maximum.
   b. Products and Manufacturers: Provide one of the following:
      1) Series 165 Epoxoline 100 (TCI); Carboguard 954 HB (TCC); Dura-Plate UHS (SWC): One coat, 12.0 dry mils.
3. Finish: Semi-Gloss:
   a. Generic Components:
      1) Refer to Paragraph 2.2.B.2.a.1), above.
   b. Products and Manufacturers: Provide one of the following:
      1) Series 165 Epoxoline 100 (TCI); Carboguard 954 HB (TCC); Dura-Plate UHS (SWC): One coat, 12.0 dry mils.

C. New and Existing Aluminum in Contact with Dissimilar Materials:
1. Surface Preparation: Refer to Paragraphs 1.5.A.2., 3.2.A. and 3.2.C.
2. Primer/Finish:
   a. Generic Components:
      1) Minimum 100 percent volume solids, high-build, two-component, polyamido-amine or polyamine epoxy; 49 grams per gallon VOC, maximum.
   b. Products and Manufacturers: Provide one of the following:
      1) Series 165 Epoxoline 100 (TCI); Carboguard 954 HB (TCC); Dura-Plate UHS (SWC): Two coats, 8.0 to 15.0 dry mils, per coat.

2.3 INSTRUMENTS

A. Instruments:
   1. Provide one new dry-film thickness gauge for checking film thickness, one holiday detector to detect holidays or holes in the coating, and one set of visual standards to check surface preparation. Calibrate dry film thickness gauge at Site using Bureau of Standards standard shim blocks.
   2. Products and Manufacturers: Provide the following:
      a. Film Thickness Testers: Model FM-III manufactured by Mikrotest, or equal.
      b. Holiday detector shall be Model M-1 as manufactured by Tinker & Rasor, or equal.
      c. Visual Standards: ASTM D2200, Swedish Standards, SSPC VIS 1.

PART 3 - EXECUTION

3.1 INSPECTION

A. Examine areas and conditions under which painting Work is to be performed and notify ENGINEER in writing of conditions detrimental to proper and timely completion of Work. Do not proceed with Work until unsatisfactory conditions have been corrected in a manner acceptable to ENGINEER.

B. Do not paint over dirt, rust, scale, grease, moisture, scuffed surfaces, or conditions otherwise detrimental to formation of a durable paint film capable of performing in accordance with claims made in paint manufacturer's product literature for surfaces and conditions encountered.

C. Do not paint over existing paint where there is no assurance that existing paint will provide an acceptable surface for long-term adherence and durability of painting systems specified or where paint manufacturer requires removal of all existing paint to recommend use of specified painting system.

3.2 SURFACE PREPARATION

A. General:
   1. Test for moisture content of surfaces before commencement of painting Work. Test for moisture in concrete in compliance with ASTM D4263. Report results to ENGINEER before commencing Work.
      intermediate coats of paint, and other protective or decorative coatings.
   2. Perform preparation and cleaning procedures as specified herein and in strict accordance with paint manufacturer's approved instructions for each surface and atmospheric condition.

4. Remove hardware, hardware accessories, machined surfaces, plates, lighting fixtures, and similar items already in place that do not require field painting, or provide effective surface-applied protection prior to surface preparation and painting.
5. Remove as necessary items that must be field-painted where adjacent surfaces cannot be completely protected from splatter or overspray. Following completion of painting of each space or area, the removed items shall be reinstalled by workers skilled in the trades involved.
6. Clean surfaces to be painted before applying painting system components. Remove oil and grease with clean cloths and cleaning solvents prior to mechanical cleaning.
7. Prepare surfaces that were improperly shop-painted and abraded or rusted shop-painted surfaces as specified.

B. Ferrous Metals:
1. Ferrous Metals:
   a. Comply with paint manufacturer's recommendations for type and size of abrasive to provide a surface profile that meets manufacturer's painting system requirements for type, function, and location of surface. Verify that paint manufacturer-recommended profiles have been achieved on prepared surfaces. Report profiles to ENGINEER using Test Method C of ASTM D4417.
   b. Clean non-submerged ferrous surfaces including structural steel and miscellaneous metal to be shop-primed, of all oil, grease, dirt, mill scale, and other contamination by commercial blast cleaning complying with SSPC SP 6 at time of paint system application, using SSPC VIS 1 as a standard of comparison.
   c. Clean submerged ferrous surfaces including structural steel and miscellaneous metal to be shop-primed of all oil, grease, dirt, mill scale, and other contamination by near-white blasting complying with SSPC SP 10 at time of painting system application, using SSPC VIS 1 as a standard of comparison.
   d. Clean non-submerged, ferrous surfaces that have not been shop-coated of all oil, grease, dirt, loose mill scale, and other contamination by commercial blasting complying with SSPC SP 6 at the time of painting system application, using SSPC VIS 1 as a standard of comparison.
   e. Clean submerged ferrous surfaces that have not been shop-coated or that have been improperly shop-coated of all oil, grease, dirt, mill scale, and other contamination by near-white blasting complying with SSPC SP 10 at time of painting system application, using SSPC VIS 1 as a standard of comparison.
   f. Touch-up shop-applied prime coats that have damaged or have bare areas with primer recommended by paint manufacturer after commercial blasting complying with SSPC SP 6 at the time of painting system

application, using SSPC VIS 1 as a standard of comparison, to provide a surface profile of not less than one mil.

g. Power tool-clean per SSPC SP 3 to remove welding splatter and slag.

C. Non-Ferrous Metal Surfaces: Prepare non-ferrous metal surfaces for painting by light whip blasting or by lightly sanding with 60- to 80-mesh sandpaper.

3.3 PROTECTION OF PROPERTY AND STRUCTURES

A. Protect property and structures adjacent to the Work from waste residues resulting from cleaning, surface preparation and paint application.

B. During blast cleaning and surface preparation of interior and exterior surfaces, control discharge of dust and grit, using shrouding, negative-pressure containment/dust collection systems, or other means to protect adjacent property and structures and prevent dust/grit from escaping. Similarly control removal and temporary storage of residues to protect adjacent property and structures.

C. Submit proposed procedures for cleaning, surface preparation and paint application describing methods for protecting adjacent property and structures from residues. Do not proceed with cleaning, surface preparation or painting until proposed procedures are approved by ENGINEER.

3.4 MATERIALS PREPARATION

A. General: Mix and prepare painting products in strict accordance with paint manufacturer's product data sheets.

3.5 APPLICATION

A. General:

1. Apply paint systems by brush, roller, or airless spray per paint manufacturer's recommendations and in compliance with Paint Application Specifications No. 1 in SSPC Volume 2, where applicable, and in strict accordance with paint manufacturer's product data sheets.
2. Omit field-applied primer on metal surfaces that have been primed in the shop. Touch-up paint to shop-primed coats and pre-finished items only when approved by ENGINEER using compatible primers and paint manufacturer's recommended compatible field-applied finishes.
3. Welds shall be stripe-coated with intermediate or finish coat of paint after application of prime coat.

B. Minimum/Maximum Paint Film Thickness: Comply with manufacturer's published recommendations for coating type and surface.

C. Scheduling Surface Preparation and Painting: Comply with manufacturer's published recommendations for coating type and surface.

F. Brush Application:
   1. Brush-out and work all brush coats onto the surfaces in an even film. Cloudiness, spotting, holidays, laps, brush marks, runs, sags, ropiness, or other surface imperfections are unacceptable.
   2. Brush-apply all primer or first coats, unless otherwise allowed to use mechanical applicators.

G. Mechanical Applicators:
   1. Use mechanical methods for applying paint when allowed by applicable ordinances, paint manufacturer, and approved by ENGINEER.
   2. Limit roller applications, if approved by ENGINEER, to interior wall finishes for second and third coats. Apply each roller coat to provide equivalent hiding as brush-applied coats.
   3. Where spray application is used, apply each coat to provide equivalent hiding of brush-applied coats. Do not double back with spray equipment for purpose of building up film thickness of two coats in one pass.

H. Completed Work: Match approved samples for color, texture, and coverage. Remove, refinish, or repaint Work not in compliance with specified requirements as required by ENGINEER.

3.6 FIELD QUALITY CONTROL

A. Notify ENGINEER after completing each coat of paint. After inspection and checking of film thickness, holidays, and imperfections, and after acceptance by ENGINEER, proceed with succeeding coat. Perform testing using testing instruments specified in Article 2.4 of this Section.

B. Record time, location, number of coats, dry film thickness, holidays, and other imperfections and submit testing results to ENGINEER.

3.9 PROTECTION OF NEW FINISHES

A. Provide signs that read, "Wet Paint" as required to protect newly painted finishes. Remove temporary wrappings provided for protection of the Work after completion of painting.

3.10 ADJUSTING AND CLEANING

A. Correct damages to work of other trades through cleaning, repairing or replacing, and repainting, as acceptable to ENGINEER.

B. During progress of Work, remove from Site all discarded paint materials, rubbish, cans, and rags at end of each workday.

C. Upon completion of painting, clean paint-spattered surfaces. Remove spattered paint by proper methods of washing and scraping, while avoiding scratching or otherwise damaging finished surfaces.

D. At completion of work of other trades, touch-up and restore damaged or defaced painted surfaces as determined by ENGINEER.

3.11 WASTE MANAGEMENT

A. Refer to Section 01 74 19, Construction Waste Management and Disposal.

+ + END OF SECTION + +

SECTION 31 23 16.13

TRENCHING

PART 1 – GENERAL

1.1 DESCRIPTION

A. Scope:
   1. CONTRACTOR shall provide all labor, materials, equipment, and incidentals required to perform all excavating, filling, and grading, and disposing of earth materials as shown, specified, and required for construction of Underground Facilities and related construction required to complete the Work.
   2. Preparation of subgrade is included under this Section.
   3. No classification of excavated materials will be made. Excavation includes all materials regardless of type, character, composition, moisture, or condition thereof.

B. Related Sections:
   1. Section 03 00 05, Concrete.
   2. Section 33 05 05, Buried Piping Installation.

1.2 REFERENCES

A. Standards referenced in this Section are:
   1. ASTM C33/C33M, Specification for Concrete Aggregates.
   2. ASTM C94/C94M, Specification for Ready-Mixed Concrete.
   3. ASTM C150/C150M, Specification for Portland Cement.
   4. ASTM C618, Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete.
   5. ASTM D422, Test Method for Particle-Size Analysis of Soils.
   6. ASTM D698, Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12 400 ft-lbf/ft^3 (600 kN-m/m^3)).
   7. ASTM D1556, Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method.
   8. ASTM D1557, Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft^3 (2,700 kN-m/m^3)).
   9. ASTM D2216, Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass.
   10. ASTM D4253, Test Methods for Maximum Index Density and Unit Weight of Soils Using a Vibratory Table.
   11. ASTM D4254, Test Methods for Minimum Index Density and Unit Weight of Soils and Calculation of Relative Density.

12. ASTM D4318, Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils.
13. ASTM D4832, Test Method for Preparation and Testing of Controlled Low Strength Material (CLSM) Test Cylinders.
14. ASTM D6023, Test Method for Density (Unit Weight), Yield, Cement Content, and Air Content (Gravimetric) of Controlled Low-Strength Material (CLSM).
15. ASTM D6103, Test Method for Flow Consistency of Controlled Low Strength Material (CLSM).
16. ASTM D6938, Test Method for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth).
17. ASTM E329, Specification for Agencies Engaged in Construction Inspection and/or Testing.

1.3 TERMINOLOGY

A. The following words or terms are not defined but, when used in this Section, have the following meaning:
   1. "Subgrade" is the uppermost surface of native soil material unmoved from cuts; the bottom of excavation.

1.4 QUALITY ASSURANCE

A. Qualifications:
   1. CONTRACTOR's Testing Laboratory:
      a. Retain the services of independent testing laboratory to perform testing and determine compliance with the Contract Documents of the materials specified in this Section.
      b. Testing laboratory shall comply with ASTM E329 and requirements of Section 01 45 29.13, Testing Laboratory Services Furnished by Contractor.
      c. Testing laboratory shall be experienced in the types of testing required.
      d. Selection of testing laboratory is subject to ENGINEER's acceptance.

B. Quality Assurance Testing:
   1. Quality assurance testing is in addition to field quality control testing required under Part 3 of this Section.
   2. Materials used in the Work may require testing and retesting, as directed by ENGINEER, during the Project. Allow free access to material stockpiles and facilities at all times. Tests not specifically indicated to be performed at OWNER's expense, including retesting of rejected materials and installed Work, shall be performed at CONTRACTOR's expense.
   3. CONTRACTOR's Testing Laboratory Scope:

a. Collect samples and perform testing of proposed fill materials in the laboratory and in the field to demonstrate compliance of the Work with the Contract Documents.
b. Testing laboratory shall perform testing required to obtain data for selecting moisture content for placing and compacting fill materials.
c. Design controlled low-strength material (CLSM) mixes in accordance with requirements of CLSM Article in Part 2 of this Section. Perform concrete materials evaluation tests and testing of CLSM mixes.
d. Submit to ENGINEER and CONTRACTOR written report results of each test.

4. Required Quality Assurance Material Testing by CONTRACTOR's Testing Laboratory:
   a. Gradation in accordance with ASTM D422. Perform one test for each of the following types of material incorporated into the Work: select fill, general fill, subbase material, drainage fill, and pipe bedding material.
   b. Atterberg limits in accordance with ASTM D4318. Perform one test for the following types of materials incorporated into the Work: general fill, and pipe bedding material.
   c. Moisture/density relations in accordance with ASTM D698, ASTM D1557, ASTM D4253, or ASTM D4254, as applicable. Perform one test for the following types of materials incorporated into the Work: select fill, general fill, subbase material, drainage fill, and pipe bedding material.
   d. Moisture content of stockpiled or borrow material in accordance with ASTM D2216. Perform one test for the following types of material incorporated into the Work: select fill, general fill, subbase material, drainage fill, and pipe bedding material.
   e. CLSM Mix: Verify CLSM mix design by laboratory trial batch, unless indicated otherwise. Perform the following testing on each concrete mix trial batch:
      1) Aggregate gradation.
      2) Flowability, in accordance with ASTM D6103.
      3) Air content, in accordance with ASTM D6023.
      4) Unconfined compressive strength of CLSM mixes at 90 days, in accordance with ASTM D4832.
      5) Submit for each concrete mix trial batch the following information:
         a) Project identification name and number (if applicable).
         b) Date of test report.
         c) Complete identification of aggregate source of supply.
         d) Tests of aggregates for compliance with the Contract Documents.
         e) Brand, type, and composition of cementitious materials.
         f) Brand, type, and quantity of each admixture.
         g) Quantity of water used in trial mixes.
         h) Proportions of each material per cubic yard.
         i) Gross weight and yield per cubic yard of trial mixtures.

j) Measured flowability.
k) Measured air content.
l) Unconfined compressive strength.

C. Regulatory Requirements:
1. Perform excavation work in compliance with requirements of authorities having jurisdiction and Laws and Regulations, including:
a. OSHA, 29 CFR Part 1926, Section .650 (Subpart P – Excavations).
2. Obtain required permits and approvals for excavation and fill Work, including work permits from right-of-way owners and permits from environmental authorities having jurisdiction over discharge of water from excavations.

1.5 SUBMITTALS

A. Action Submittals: Submit the following:
1. Shop Drawings:
a. List of CLSM materials and mix designs proposed for use. Include results of quality assurance testing performed to qualify the materials and to establish the mix designs.
b. Laboratory Trial Batch Reports: Submit laboratory quality assurance test reports for materials and mix design tests.
c. Modifications to the Work proposed due to design of sheeting, shoring, bracing, cofferdams, and similar excavation supports.
2. Product Data:
a. Manufacturer's specifications with application and installation instructions for proprietary materials and items, including admixtures to be used in CLSM mixes.
3. Samples:
a. Submit Sample of each aggregate and soil material required under this Section. Deliver Samples to ENGINEER. Samples shall be of sufficient size to demonstrate the array of gradation and material types expected in the Work.

B. Informational Submittals: Submit the following:
1. Procedure Submittals:
a. Excavation Plan: Prior to starting excavation operations, submit written plan to demonstrate compliance with OSHA 29 CFR Part 1926.650. As a minimum, excavation plan shall include:
1) Name of CONTRACTOR's "competent person" in responsible charge of excavation and fill Work.
2) Excavation method(s) and additional items to be included in the Work, as listed in Paragraph 1.5.B.2.a of this Section.
3) Copies of "manufacturer's data" or other tabulated data if protective system(s) are designed on the basis of such data.

4) Copies of required permits and approvals, from authorities having jurisdiction and affected utility owners, for excavation methods proposed.

b. Proposed compaction procedure and compaction equipment proposed for use. Where different procedures or equipment will be used for compacting different types of material or at different locations at the Site, indicate where each procedure and equipment item will be used.

2. Delivery Tickets:

a. Copies of delivery tickets for each load of CLSM material delivered to or mixed at the Site. Each delivery ticket shall contain information in accordance with ASTM C94/C94M along with project and contract name and number, date, mix type, mix time, quantity and amount of water introduced.

b. Copy of delivery ticket for each load of aggregate and borrow material delivered to the Site. Each delivery ticket shall indicate project and contract by name and number, date, material type, department of transportation item number when applicable, and quantity delivered.

4. Quality Assurance Test Results Submittals:

a. Submit results of quality assurance testing performed by in accordance with Paragraph 1.4.B of this Section, unless included as part of another submittal under this Section. Submit results for the following quality assurance testing:

1) Tests on borrow fill material.

2) Optimum moisture – maximum dry density curve for each type of fill material.

5. Field Quality Control Submittals:

a. Submit results of testing and inspection performed in accordance with the field quality control Article in Part 3 of this Section, including:

1) Field density testing.

2) Tests of actual unconfined compressive strength or bearing tests of each stratum.

6. Qualifications Statements:

a. Quality Assurance Testing laboratory. Submit name and qualifications of testing laboratory to be employed, and qualifications of testing laboratory's personnel that will perform quality assurance testing required in this Section.

b. Field Quality Control Testing Laboratory: Names and qualifications of testing laboratory employed, and qualifications of testing laboratory's personnel that will perform field quality control testing as required under this Section.

1.6 SITE CONDITIONS

A. Subsurface Information: The Supplementary Conditions indicate information available relative to subsurface conditions at the Site. Such information and data is

not intended as a representation or warranty of continuity of conditions between soil borings or test pits, nor of groundwater levels at dates and times other than date and time when measured, nor that purpose of obtaining the information and data were appropriate for use by CONTRACTOR. OWNER will not be responsible for interpretations or conclusions drawn there from by CONTRACTOR.

B. Soil borings and other exploratory operations may be made by CONTRACTOR, at no additional cost to CITY. Coordinate CONTRACTOR-performed test borings and other exploratory operations with CITY and utility owners as appropriate. Perform such explorations without disrupting or otherwise adversely affecting operations of CITY or utility owners. Comply with Laws and Regulations relative to required notifications.

C. Existing Structures:
   1. The Contract Documents show or indicate certain structures and Underground Facilities adjacent to the Work. Such information was obtained from existing records and is not guaranteed to be correct or complete. CONTRACTOR shall explore ahead of the excavation to determine the exact location of all existing structures and Underground Facilities. Existing structures and Underground Facilities shall be supported and protected from damage by CONTRACTOR. Immediately repair and restore existing structures and Underground Facilities damaged by CONTRACTOR without additional cost to CITY.
   2. Movement or operation of construction equipment over Underground Facilities shall be at CONTRACTOR's sole risk and only after CONTRACTOR has prepared and submitted to ENGINEER and utility owners (as applicable), and received acceptance therefrom, a plan describing CONTRACTOR's analysis of the loads to be imparted and CONTRACTOR's proposed measures to protect structures and Underground Facilities during the Project.
   3. Coordinate with utility owners for shut-off of services in active piping and conduits.
   4. In general, service lines and laterals to individual houses and businesses are not shown; however, CONTRACTOR shall assume that a service exists for each utility owner to each house, business, and property.
   5. Do not interrupt existing utilities serving facilities occupied and used by CITY or others, except when such interruption is indicated in the Contract Documents or when allowed in writing by ENGINEER after acceptable temporary utility services are provided by CONTRACTOR for the affected structure or property.

PART 2 – PRODUCTS

2.1 MATERIALS

A. Select Fill (Backfill Within the Public Street Right-Of-Way):

1. Material shall be ODOT 703.11, Type 1 Granular Material (304, 411, or 617 Aggregate Gradation) or Type 2 Granular Material.
2. Deviations from this are as follows:
   a. No foundry or slag is permitted.
   b. Alternate granular material shall be permitted only with the supplemental of the ENGINEER. To petition for such supplemental approval, the CONTRACTOR shall submit in writing the following data:
      1) Source of the alternate backfill material.
      2) Gradation report in accordance with AASHTO T II and T 27.
      3) Proctor curve analysis in accordance with ASTM D 698.
      4) Proposed compaction method.
   c. The ENGINEER reserves the right to refuse any alternate backfill material, regardless of approval of similar material on previous projects.
   d. The ENGINEER further reserves the right to refuse any alternate backfill material found to be inconsistent with the approved source, gradation report, proctor report or compaction method.
   e. ODOT 703.11, Type 2, or approved alternate materials, are not permitted within 4 feet of the trench surface, unless otherwise approved by the ENGINEER.

B. General Fill (Backfill Outside of the Public Street Right-Of-Way):
   1. Material and methods for backfill shall comply with ODOT 603.

C. Subgrade Reinforcement Material:
   1. Crushed Stone, AASHTO M 43 No.1 and/or 2.
   2. Crushed Stone, AASHTO M 43 No. 56, 57, or 67.
   3. ODOT 703.11, Type 1 (304, 411 or 617 Gradation)
   4. Tensar Geogrid T1100, or Approved Equal.

E. Pipe Bedding Material:
   1. Material shall be AASHTO M 43 No. 56, 57, or 67 crushed stone.
   2. No alternates unless approved by ENGINEER.

F. Controlled Low Strength Material (CLSM):
   1. CLSM shall be ODOT 613, Low Strength Mortar.

2.2 SOURCE QUALITY CONTROL

A. Perform quality assurance testing, and submit results to ENGINEER, in accordance with the 'Quality Assurance" Article in Part 1 of this Section.

PART 3 – EXECUTION

3.1 INSPECTION

A. Provide ENGINEER with sufficient notice and with means to examine areas and conditions under which excavating, filling, and grading will be performed. ENGINEER will advise CONTRACTOR in writing when ENGINEER is aware of conditions that may be detrimental to proper and timely completion of the Work. Do not proceed with the Work until unsatisfactory conditions are corrected.

3.2 TEST PITS

A. General:
   1. In advance of the construction, excavate, make observations and measurements, and fill test pits to determine conditions or location of the existing Underground Facilities and structures. Perform all work required in connection with excavating, stockpiling, maintaining, sheeting, shoring, filling, and replacing pavement for test pits. CONTRACTOR shall be responsible for the definite location of each existing Underground Facility involved within the area of excavation for the Work. Exercise care during such location work to avoid damaging and disrupting the affected Underground Facility or structure. CONTRACTOR shall be responsible for repairing, at his expense, damage to Underground Facility or structure caused during the Work.

3.3 PREPARATION

A. Site Preparation:
   1. Clear areas to be occupied by permanent construction of all trees, brush, roots, stumps, logs, wood and other materials and debris. Clean and strip vegetation, sod, topsoil, and organic matter from subgrades where fills will be placed, and from areas where structures will be constructed. Remove from the Site and properly dispose of all waste materials.
   2. Burning is not allowed at the Site.

B. Use of Explosives:
   1. Use of explosives is not allowed.

C. Dust Control:
   1. Control objectionable dust caused by CONTRACTOR's operation of vehicles and equipment, clearing, and other actions. To minimize airborne dust, apply water or use other methods subject to ENGINEER's acceptance and approval of authorities having jurisdiction.

3.4 DEWATERING

A. Dewatering – General:
   1. Provide and maintain adequate drainage and dewatering equipment to remove and dispose of all surface water and ground water entering excavations, or

other parts of the Work and work areas. Keep each excavation dry during excavation, subgrade preparation, and continually thereafter until the Underground Facilities to be built therein area acceptable to ENGINEER and backfilling operations are completed and acceptable to ENGINEER.

2. Keep all working areas at the Site free of surface water at all times. Provide temporary drainage ditches and temporary dikes, and provide required temporary pumping and other work necessary for diverting or removing rainfall and all other accumulations of surface water from excavations and fill areas. Perform diversion and removal of surface water in manner that prevents accumulation of water behind permanent or temporary structures and at any other locations in the construction area where such accumulations may be detrimental.
3. Water used for working or processing, resulting from dewatering operations, or containing oils or sediments that will reduce the quality of the surface water or groundwater downstream of the point of discharge, shall not be directly discharged. Divert such waters through temporary settling basin or filter before discharging to surface water, groundwater, or drainage routes.
4. CONTRACTOR shall be responsible for condition of piping, conduits, and channels used for drainage and such piping, conduits, and channels shall be clean and free of sediment.
5. Remove water from excavations as fast as water collects.

B. Temporary Dewatering System:

1. CONTRACTOR shall design, provide, and operate dewatering system to include sufficient trenches, sumps, pumps, hose, piping, well points, deep wells, and similar facilities, necessary to depress and maintain groundwater level 24-inches below the base of each excavation during all stages of construction operations.
2. Design and operate dewatering system to avoid settlement and damage to existing structures and Underground Facilities.
3. Groundwater table shall be lowered in advance of excavation for a sufficient period of time to allow dewatering of fine grain soils.
4. Maintain groundwater level at excavations two feet below lowest subgrade excavation until the structure or Underground Facility, as applicable, has sufficient strength and weight to withstand horizontal and vertical soil and water pressures from natural groundwater.
5. Operate dewatering system continuously, 24 hours per day, seven days per week. Provide standby pumping facilities and personnel to maintain the continued effectiveness of the system. Do not discontinue dewatering operations without first obtaining ENGINEER's acceptance for such discontinuation.
6. If, in ENGINEER's opinion, the water levels are not being lowered or maintained as required, provide additional or alternate temporary dewatering devices as necessary, at no additional cost to OWNER.

7. Locate elements of temporary dewatering system to allow continuous dewatering operation without interfering with the Work to the extent practicable.
8. Where portions of dewatering system are located in the area of permanent construction, submit to and obtain ENGINEER's acceptance of details of proposed methods of constructing the Work at such location. Control of ground water shall continue until the permanent construction provides sufficient dead load to withstand hydrostatic uplift of the normal groundwater, until concrete has attained sufficient strength to withstand earth and hydrostatic loads.
9. Perform pumping of water from excavations in a manner that prevents carrying away of unsolidified concrete materials, and that avoids damaging the subgrade.
10. Before discontinuing dewatering operations or permanently allowing rise of groundwater level, prepare computations to demonstrate that structures affected by the water level rise are protected by fill or other means to sustain uplift. Use a safety factor of 1.25 when preparing such calculations.

C. Disposal of Water Removed by Dewatering System:
1. CONTRACTOR's dewatering system shall discharge to suitable location acceptable to CITY and owners of other properties potentially affected by water discharge, including owners adjacent to and downstream of dewatering system discharge. Operation dewatering system and disposal of water shall be in accordance with Laws and Regulations.
2. Convey water from excavations in closed conduits. Do not use trench excavations as temporary drainage ditches.
3. Dispose of water removed from excavations in a manner that does not endanger health and safety, property, the Work, and other portions of the Project.
4. Dispose of water in manner that causes no inconvenience to OWNER, others involved in the Project, and adjacent and downstream properties.

3.5 EXCAVATION

A. Perform all excavation required to complete the Work as shown, specified, and required. Excavations shall include removing and handling of earth, sand, clay, gravel, hardpan, soft, weathered or decomposed rock, pavements, rubbish, and other materials within the excavation limits.

B. Excavation Protection:
1. Provide excavation protection system(s) in accordance with Laws and Regulations to prevent injury to persons and property, including Underground Facilities.
2. Excavation Less Than Five Feet Deep: Excavations in stable rock or in soil conditions where there is no potential for a cave-in may be made with vertical

sides. Under all other conditions, excavations shall be sloped and benched, shielded, or shored and braced.

3. Excavations Greater Than Five Feet Deep: Excavations in stable rock may be made with vertical sides. Under all other conditions, excavations shall be sloped and benched, shielded, or shored and braced.
4. Provide and maintain excavation protection system(s) in accordance with submittals accepted by ENGINEER and required under Paragraph 1.5.B of this Section.

C. Maintain excavations in dry condition in accordance with "Dewatering" Article in Part 3 of this Section.

D. Elevation of bottom of footings shown is approximate. ENGINEER may direct such minor changes in dimensions and elevations as may be required to secure a satisfactory footing. Elevations of piping, conduit, and similar other Underground Facilities shall be as shown or indicated on the Contract Documents.

E. When excavations are made below required grades without written order of ENGINEER, fill such excavations with compacted select fill material, as directed by ENGINEER, at CONTRACTOR's expense.

F. Extend excavations sufficiently on each side of structures, footings, and similar construction to allow setting of forms, installation of shoring and bracing, and the safe sloping of banks, as necessary.

G. Subgrades – General:
1. Subgrades shall be firm, dense, and thoroughly compacted and consolidated; shall be free from mud, muck, and other soft or unsuitable materials; and shall remain firm and intact under all construction operations. Subgrades that are otherwise solid but become soft or mucky on top due to construction operations shall be reinforced. Finished elevation of stabilized subgrades shall not be above subgrade elevations shown.
2. If, in ENGINEER's opinion, subgrade becomes softened or mucky because of construction delays, failure to dewater properly, or other cause within CONTRACTOR's control, subgrade shall be excavated to firm material, trimmed, and backfilled with select fill material at CONTRACTOR's expense.

H. Pipe Trench Preparation:
1. Not more than 30 feet of trench may be opened in advance of installing pipe in trench.
2. Trench width shall be minimized to greatest extent practical, and shall comply with the following:
   a. Trench width shall be sufficient to provide space for installing, jointing and inspecting piping. Refer to Drawings for trench requirements. In no

case should trench be wider at top of pipe than pipe barrel OD plus two feet, unless otherwise shown or indicated.

b. Enlargement of trench width at pipe joints may be made when required and approved by ENGINEER.

c. Trench width shall be sufficient for shoring and bracing, or shielding and dewatering.

d. Trench width shall be sufficient to allow thorough compaction of fill adjacent to bottom half of pipe.

e. Do not use excavating equipment that requires the trench to be excavated to excessive width.

3. Depth of trench shall be as shown or indicated. If required and approved by ENGINEER in writing, depths may be revised.

4. Where ENGINEER considers existing material beneath bedding material unsuitable, remove and replace such unsuitable material with select fill material.

I. Excavated Materials to be Used as Fill:

1. Stockpile excavated materials that are acceptable for use as fill.
2. As excavation proceeds, keep stockpiles of excavated materials suitable for use as fill separate from unsuitable materials and waste materials.
3. Place, grade, and shape stockpiles for proper drainage.
4. Locate and retain soil materials away from edge of excavations.
5. Dispose of excess soil material and waste materials as specified in this Section.
6. Stockpiled excavated soils for use as select fill or general fill shall be tested and classified by laboratory as on-Site select fill or on-Site general fill. Perform required quality assurance testing for material verification on stockpiled materials as soon as possible to demonstrate compliance of excavated materials with the Contract Documents.
7. When all excavated material cannot be stored in the right-of-way or other lands provided by OWNER in such manner as to maintain traffic conditions as specified, remove surplus material from the Site and store such material appropriately. After laying pipe or completing the Underground Facility or structure being built in the trench, bring back to trench sufficient quantity of suitable excavated material required for backfilling the trench.
8. In built-up work areas and in streets where traffic conditions require, remove material excavated from initial opening of excavation as soon as the material is excavated; use suitable material subsequently excavated to backfill trenches in which Underground Facilities have been installed or structures built. Do not store excavated material or construction materials on streets or sidewalks.

3.6 UNAUTHORIZED EXCAVATION

A. All excavations outside lines and grades shown or indicated and that are not approved by ENGINEER, together with removing and disposing of the associated

material, shall be at CONTRACTOR's expense. Fill unauthorized excavations with properly-compacted select fill material at CONTRACTOR's expense.

3.7 EROSION AND SEDIMENT CONTROLS

A. Provide temporary erosion and sediment controls in accordance with Section 01 57 05, Temporary Controls. When applicable, also comply with requirements of the erosion and sediment control plan approved by authorities having jurisdiction.

3.8 SHEETING, SHORING, AND BRACING

A. General:
   1. Design and provide sheeting, shoring, bracing, cofferdams, and similar excavation supports as shown, specified, and required for the Work.
   2. Clearances and types of temporary sheeting, shoring, bracing, and similar excavation supports, insofar as they may affect the finished character of the Work and the design of sheeting to be left in place, will be subject to the ENGINEER's approval; but CONTRACTOR is responsible for adequacy of all sheeting, shoring, bracing, cofferdams, and similar excavation supports.
   3. Materials:
      a. Previously-used materials shall be in good condition, and shall not be damaged or excessively pitted. All steel or wood sheeting designated to remain in place shall be new. New or used sheeting may be used for temporary sheeting, shoring, and bracing.
      b. All steel work for sheeting, shoring, bracing, cofferdams and other excavation supports, shall be in accordance with ANSI/AISC 360, except that field welding will be allowed.
   4. As excavation progresses, carry down shoring, bracing, cofferdams, and similar excavation supports to required elevation at bottom of excavation.
   5. Comply with Laws and Regulations regarding sheeting, shoring, bracing, cofferdams, and similar excavation supports.
   6. Maintain sheeting, shoring, bracing, bracing, and other excavation supports in excavations regardless of time period excavations will be open.
   7. Unless otherwise shown, specified, or directed, remove materials used for temporary construction when the Work is completed. Perform such removal in manner not injurious to the structures and Underground Facilities, their appearance, and adjacent construction.

B. Removal of Sheeting and Bracing:
   1. Remove sheeting and bracing from excavations, unless otherwise directed by ENGINEER in writing. Perform removal to avoid damaging the Work and adjacent construction. Removal shall be equal on both sides of excavation to ensure no unequal loads on structures and Underground Facilities.
   2. Defer removal of sheeting and bracing, where removal may cause soil to come into contact with concrete, until concrete has cured for not less than seven days.

3.9 TRENCH SHIELDS

A. Excavation of earth material below bottom of trench shield shall not exceed the limits established in Laws and Regulations.

B. When using a shield for installing piping:
   1. Bottom of shield shall not at any time extend below mid-diameter of installed pipe that is flexible or has flexing capability.

C. When using a shield for installing structures, including structures that are Underground Facilities, bottom of the shield shall not extend below the top of the bedding for the structures.

D. When removing the shield or moving the shield ahead, exercise extreme care to prevent moving piping, structures, and other Underground Facilities, and prevent disturbance of bedding material for piping, structures, and other Underground Facilities. When piping, structures, or other Underground Facilities are disturbed, remove and reinstall the disturbed items in accordance with the Contract Documents.

3.10 FILL AND COMPACTION – GENERAL PROVISIONS

A. Provide and compact all fill required for the finished grades as shown and as specified in this Section.

B. Place fill in excavations as promptly as progress of the Work allows, but not until completing the following:
   1. ENGINEER's authorization after observation of construction below finish grade.
   2. Inspection, testing, approval, and recording of locations of Underground Facilities.
   3. Removal of formwork.
   4. Removal of shoring and bracing, and filling of voids with satisfactory materials.
   5. Removal of trash and debris.
   6. Field testing of Underground Facilities including piping and conduits, in accordance with Section 33 05 05, Buried Piping Installation, when nature of the test requires observation of pipe exterior during testing.

C. Fill that includes organic materials or other unacceptable material shall be removed and replaced with approved fill material in accordance with the Contract Documents.

D. Placement – General:
   1. Place fill to the grades shown or indicated. Bring up evenly on all sides fill around structures and Underground Facilities.

2. Place fill materials at moisture content and density as specified in this Article's requirements on compaction density. Furnish and use equipment capable of adding measured amounts of water to the fill materials to bring fill materials to a condition within required moisture content range. Furnish and use equipment capable of discing, aerating, and mixing the fill materials to ensure reasonable uniformity of moisture content throughout the fill materials, and to reduce moisture content of borrow materials by air drying, when necessary. When subgrade or lift of fill materials requires moisture-conditioning before compaction, fill material shall be sufficiently mixed or worked on the subgrade to ensure uniform moisture content throughout the lift of material to be compacted. Materials at moisture content in excess of specified limit shall be dried by aeration or stockpiled for drying.
3. Perform compaction with equipment suitable for the type of fill material placed. Select and use equipment capable of providing the minimum density required in the Contract Documents. Use light compaction equipment, with equipment gross weight not exceeding 7,000 pounds within horizontal distance of ten feet from the wall of completed, below-grade structures. Furnish and use equipment capable of compacting in restricted areas next to structures and around piping and other Underground Facilities. Effectiveness of the equipment selected by CONTRACTOR shall be tested at start of compacted fill Work by constructing a small section of fill within the area where fill will be placed. If tests on the test section of fill indicate that required compaction is not obtained, do one or more of the following: increase the amount of coverages, decrease the lift thicknesses, or use different compactor equipment.
4. Place fill materials in horizontal, loose lifts, not exceeding specified uncompacted thickness. Place fill in a manner ensuring uniform lift thickness after placing. Mechanically compact each lift, by not less than two complete coverages of the compactor. One coverage is defined as the conditions reached when all portions of the fill lift have been subjected to the direct contact of compactor's compacting surface. Compaction of fill materials by inundation with water is unacceptable.
5. Do not place fill materials when standing water is present on surface of the area where fill will be placed. Do not compact fill when standing water is present on the fill to be compacted. Do not place or compact fill in a frozen condition or on top of frozen material. Fill containing organic materials or other unacceptable material previously described shall be removed and replaced prior to compaction.
6. If required densities are not obtained because of improper control of placement or compaction procedures, or because of inadequate or improperly-functioning compaction equipment, CONTRACTOR shall perform all work required to provide the required densities. Such work shall include, at no additional cost to OWNER, complete removal of unacceptable fill areas and replacement and re-compaction until acceptable fill is provided.

7. Repair, at CONTRACTOR's expense, observed or measured settlement. Make repairs and replacements as required within 30 days after being so advised by ENGINEER.

E. Fill Against Concrete:
   1. Placing fill against concrete below finished grade is not allowed until the concrete has attained its specified strength, as determined by duration of concrete curing and testing of field-cured concrete cylinders. Requirements for strength and curing time are in Section 03 00 05, Concrete.
   2. Elevation of fill placed against concrete walls shall not differ by more than two feet on each side of walls.
   3. Backfill structural foundation units as soon as practicable, in accordance with this Section, after concrete has gained sufficient strength to avoid damage, to avoid ponding of surface water and accumulation of debris.
   4. Where fill is placed against waterproofed surface, exercise care that waterproofing material is not damaged.

F. Fill in Pipe Trenches:
   1. Piping trenches may be backfilled prior to testing of piping, unless nature of the test requires observation of pipe during testing.
   2. Pipe Bedding: Pipe bettering material shall be as follows:
      a. Unless otherwise shown, install piping on not less than six-inch layer of aggregate pipe bedding material. Aggregate pipe bedding material shall extend 12 inches above top of the pipe.
   4. Placing and Compacting Pipe Trench Fill: Unless otherwise shown, placement and compaction of pipe trench fill materials shall comply with the following:
      a. Pipe bedding material shall be spread and the surface graded to provide a uniform and continuous support beneath piping at all points between bell holes or pipe joints. Slight disturbance of installed pipe bedding material surface during withdrawal of pipe slings or other lifting tackle is acceptable.
      b. After each pipe's bedding material has been graded, and the piping has been aligned, joined in accordance with the Contract Documents, and placed in final position on bedding material, provide and compact sufficient pipe trench fill material under and around each side of the pipe and back of the bell or end thereof to hold piping in proper position and maintain alignment during subsequent pipe jointing and embedment operations. Deposit and compact pipe trench fill material uniformly and simultaneously on each side of piping to prevent lateral displacement of piping. Place and compact pipe trench fill material to an elevation 12 inches above top of pipe, unless otherwise shown or specified.
      c. Each layer of pipe trench fill material shall be compacted by at least two complete coverages of all portions of surface of each lift using appropriate compaction equipment.

d. Method of compaction and compaction equipment used shall be appropriate for material to be compacted and shall not transmit damaging shocks to the piping.

G. Temporary Pavement:
1. Place 1.5 inches of temporary asphalt concrete pavement immediately after filling excavations in paved roadways and other paved areas that will remain for permanent use.
2. Maintain surface of paved area over the fill in good and safe condition during progress of the Work, and promptly fill depressions over and adjacent to the fill area caused by settlement of fill.
3. Permanent replacement pavement shall be equal to that of the existing roadways, unless otherwise shown or specified.

H. Compaction Density Requirements:
1. Minimum density for fill materials shall be 100 percent of maximum density obtained in the laboratory in accordance with ASTM D698. Compaction of fill materials less than five feet below final grade, behind concrete walls, and pipe bedding materials when not located below structures or pavement shall be 95 percent of maximum density.
2. Place fill in trenches below piping, foundations, or paved areas in horizontal uncompacted layers not greater than eight inches deep, and thoroughly compact each layer before next layer is placed. In other pipe trenches, horizontal uncompacted layers shall be not greater than six inches deep.
3. Fill shall be wetted and thoroughly mixed to achieve optimum moisture content plus-or-minus three percent, with the following exceptions:
   a. On-site clayey soils: Optimum to plus three percent.
4. Replace natural, undisturbed soils or compacted soil subsequently disturbed or removed by construction operations with materials compacted as indicated.
5. Field quality control testing for density; to verify that specified density was obtained, will be performed during each day of compaction Work. Responsibility for field quality control testing is specified in the "Field Quality Control" Article in Part 3 of this Section.
6. When field quality control testing indicates unsatisfactory compaction, provide additional compaction necessary to obtain the specified compaction. Perform additional compaction Work at no additional cost to OWNER until specified compaction is obtained. Such work includes complete removal of unacceptable (as determined by ENGINEER) fill areas and replacement and re-compaction until acceptable fill is provided in accordance with the Contract Documents.

I. Replacement of Unacceptable Excavated Materials: In cases where over-excavation to replace unacceptable soil materials is required, backfill the excavation to required subgrade with select fill material and thoroughly compact in accordance with "Compaction Density Requirements" of this Article and the associated "Compaction

Density Requirements" in this Article. Slope the sides of excavation in accordance with the maximum inclinations specified for each structure location.

3.11 GRADING

A. General:
   1. Uniformly grade areas within limits of grading under this Section, including adjacent transition areas.
   2. Smooth subgrade surfaces within specified tolerances, compact with uniform levels or slopes between points where elevations are shown, or between such points and existing grades.
   3. Blend grading over trench to elevations shown or indicated; where elevations are not shown or indicated, blend finished grade with existing grade on each side of trench.

B. Finish surfaces free of irregular surface changes, and shall comply with the following:
   1. Grassed Areas or Areas Covered with Gravel, Stone, Wood Chips, or Other Special Cover: Finish areas to receive topsoil or special cover to within not more than one inch above or below the required subgrade elevations.
   2. Pavements: Shape surface of areas under pavement to line, grade, and cross section, with finish surface not more than 1/2-inch above or below the required subgrade elevation.

C. Compaction:
   1. After grading, compact subgrade surfaces to the depth and percentage of maximum density for each area classification.

3.12 CONTROLLED LOW STRENGTH MATERIAL (CLSM)

A. Controlled Low Strength Materials Placement:
   1. Discharge CLSM from the mixer by reasonable means into the space to be filled.
   2. Bring the fill material uniformly up to the fill line shown or indicated in the Contract Documents; if not shown or indicated, bring the fill material uniformly to the desired level.
   3. Placement of fill over the CLSM may proceed after a curing period of not less than three days.

3.13 PAVEMENT SUBBASE COURSE

A. General:
   1. Place subbase material, in layers of specified thickness, over ground surface to support pavement base course.

2. After completing filling and grading, shape and compact pavement subgrade to an even, firm foundation in accordance with this Section.
3. Fill trenches over which pavement will be placed with select fill.
4. Fill trenches adjacent to paved areas with select fill to an elevation equal to the elevation where a line projecting from outer edge of paved surface (including shoulders) at an angle of 45 degrees from horizontal intersects the centerline of trench. Above this elevation, fill trench with suitable general fill material.

B. Grade Control:
1. During construction, maintain lines and grades including crown and cross-slope of subbase course.

C. Placing of Pavement Subbase Course:
1. Place subbase course material on prepared subgrade in layers of uniform thickness, in accordance with indicated cross-section and thickness. Maintain optimum moisture content for compacting subbase material during placing operations.
2. After completing compaction, other than that necessary for bringing material for the next course, do not haul or drive over the compacted subbase.

3.14 DISPOSAL OF EXCAVATED MATERIALS

A. General:
1. CONTRACTOR shall haul away material removed from excavations that does not comply with requirements for fill, or is in excess of the quantity required for fill.
2. Disposal of materials shall be in compliance with Laws and Regulations, at no additional cost to OWNER.

3.15 TEMPORARY BARRIERS

A. General:
1. Provide temporary barrier surrounding excavations and excavation work areas for protection of persons and property. Temporary barriers supplement the requirements noted on the GENERAL NOTES SHEET of the Contract Drawings.
2. Provide temporary barriers where shown or indicated, and where necessary to protect persons and property. At minimum, provide temporary barriers for all excavations that remain open overnight or longer.

3.16 FIELD QUALITY CONTROL

A. Site Tests: Employ a testing laboratory to perform field quality control testing.-
1. Testing Laboratory Scope:

a. Perform field moisture content and density tests to ensure that the specified compaction of fill materials has been obtained.
b. Tests of actual unconfined compressive strength or bearing tests on each stratum.
c. Report results of each test to ENGINEER and CONTRACTOR.

2. Required Material Tests:
   a. Compaction: Comply with ASTM D1556 and ASTM D6938, as applicable.
3. Authority and Duties of Testing Laboratory:
   a. Technicians representing the testing laboratory shall inspect the materials in the field, perform testing, and report findings to ENGINEER and CONTRACTOR. When materials furnished or the Work performed does not comply with the Contract Documents, technician will direct attention of ENGINEER and CONTRACTOR to such failure.
   b. Technician will not act as foreman or perform other duties for CONTRACTOR. Work will be checked as it progresses, but failure to detect defective Work or non-complying materials shall not in any way prevent later rejection when defect is discovered, nor shall it obligate ENGINEER for Substantial Completion or final acceptance. Technicians are not authorized to revoke, alter, relax, enlarge, or release requirements of the Contract Documents, or to approve or accept any portion of the Work.
4. Responsibilities and Duties of CONTRACTOR:
   a. Use of testing laboratory shall in no way relieve CONTRACTOR of the responsibility to provide materials and Work in full compliance with the Contract Documents.
   b. To facilitate testing laboratory, CONTRACTOR shall advise testing laboratory at least two days in advance of filling operations to allow for completion of field quality control testing and for assignment of personnel.
   c. It shall be CONTRACTOR's responsibility to accomplish the specified compaction for fill and other earthwork. CONTRACTOR shall control construction operations by confirmation tests to verify and confirm that CONTRACTOR has complied, and is complying at all times, with the Contract Documents relative to compaction, control.
   d. CONTRACTOR shall demonstrate adequacy of compaction equipment and procedures before exceeding one or more of the following quantities of earthwork. Each test location shall include tests for each layer, type, or class of fill to finish grade.
      1) 200 linear feet of fill in trenches, except subbase material.
      2) 10 cubic yards of select fill other than that placed in trenches.
      3) 100 cubic yards of general fill other than that placed in trenches.
      4) 50 cubic yards of subbase material.

5. Testing laboratory will inspect and indicate acceptable subgrades and fill layers before construction work is performed thereon. Testing of subgrades and fill layers shall be taken as follows:
   a. Trenches for Underground Facilities:
      1) In Open Fields: Two locations every 1,000 linear feet.
      2 Along Dirt or Gravel Roads or Off Traveled Right-of-Way: Two locations every 500 linear feet.
      3) Crossing Paved Roads: Two locations along each crossing.
      4) Under Pavement Cuts or Within Two Feet of Pavement Edges: One location every 400 linear feet.
   b. Subbase Material: One per 1,000 square feet on every compacted lift.
6. Periodic compliance tests will be made by ENGINEER to verify that compaction is complying with the requirements specified, at no cost to CONTRACTOR. CONTRACTOR shall remove the overburden above the level at which ENGINEER wishes to test and shall fill and re-compact the excavation after testing is complete.
7. If testing laboratory reports or inspections indicate subgrade, fills, or bedding compaction below specified density, CONTRACTOR shall remove unacceptable materials as necessary and replace with specified materials and provide additional compaction at CONTRACTOR's expense until subgrades, bedding, and fill are acceptable. Costs for retesting of subgrade, fills, or bedding materials that did not originally comply with specified density shall be paid by CONTRACTOR.

+ + END OF SECTION + +

SECTION 33 05 05

BURIED PIPING INSTALLATION

PART 1 - GENERAL

1.1 DESCRIPTION

A. Scope:
   1. CONTRACTOR shall provide all labor, materials, equipment, and incidentals as shown, specified, and required to install and test all buried piping, fittings, and specials. The Work includes the following:
      a. All types and sizes of buried piping.
      b. Unless otherwise shown or specified, this Section includes all buried piping Work required, beginning at the outside face of structures or structure foundations, including piping beneath structures, and extending away from structures.
      c. Work on or affecting existing buried piping.
      d. Installation of all jointing and gasket materials, specials, flexible couplings, and other Work required for a complete, buried piping installation.
      e. Field quality control, including testing.
      f. Cleaning.

B. Coordination:
   1. Review installation procedures under this and other Sections and coordinate installation of items to be installed with or before buried piping Work.

C. Related Sections:
   1. Section 31 23 16.13, Trenching.
   2. Section 03 00 05, Concrete.

1.2 REFERENCES

A. Standards referenced in this Section are:
   1. ASME B31.3, Process Piping.
   2. American Society for Non-Destructive Testing (ASNT), ASNT-TC-1A, Recommended Practice, Personnel Qualification, and Certification in Non-destructive Testing.
   3. ASTM D2321, Practice for Underground Installation of Thermoplastic Pipe for Sewers and other Gravity-Flow Applications.
   4. ASTM F1417, Test Method for Installation Acceptance of Plastic Gravity Sewer Lines using Low-Pressure Air.
   5. ASCE 37, Design and Construction of Sanitary and Storm Sewers.

1.3 QUALITY ASSURANCE

A. Regulatory Requirements:
   1. Comply with requirements and recommendations of authorities having jurisdiction over the Work.
   2. Obtain required permits for Work in roads, rights-of-way, railroads, and other areas of the Work.

1.4 SUBMITTALS

A. Action Submittals: Submit the following:
   1. Shop Drawings:
      a. Details of piping, specials, joints, and connections to piping, structures, equipment, and appurtenances.
   2. Product Data:
      a. Manufacturer's literature and specifications, as applicable, for products specified in this Section.
   3. Testing Procedures:
      a. Submit proposed testing procedures, methods, apparatus, and sequencing. Obtain ENGINEER's approval prior to commencing testing.

B. Informational Submittals: Submit the following:
   1. Certificates:
      a. Certificate signed by manufacturer of each product certifying that product conforms to applicable referenced standards.
   2. Field Quality Control Submittals:
      a. Results of each specified field quality control test.

C. Closeout Submittals: Submit the following:
   1. Record Documentation:
      a. Maintain accurate and up-to-date record documents showing modifications made in the field, in accordance with approved submittals, and other Contract modifications relative to buried piping Work. Submittal shall show actual location of all piping Work and appurtenances at same scale as the Drawings.
      b. Show piping with elevations referenced to Project datum and dimensions from permanent structures. For each horizontal bend in piping, include dimensions to at least three permanent structures, when possible. For straight runs of piping provide offset dimensions as required to document piping location.
      c. Include profile drawings with buried piping record documents when the Contract Documents include piping profile drawings.
      d. Conform to Section 01 78 39, Project Record Documents.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Delivery:
   1. Deliver materials to the Site to ensure uninterrupted progress of the Work.
   2. Upon delivery inspect pipe and appurtenances for cracking, gouging, chipping, denting, and other damage and immediately remove from Site and replace with acceptable material.

B. Storage:
   1. Store materials to allow convenient access for inspection and identification. Store material off ground using pallets, platforms, or other supports. Protect packaged materials from corrosion and deterioration.
   2. Cover PVC pipe and fittings stored outdoors.

C. Handling:
   1. Handle pipe, fittings, specials, and accessories carefully in accordance with pipe manufacturer's recommendations. Do not drop or roll material off trucks. Do not drop, roll or skid piping.
   2. Avoid unnecessary handling of pipe.
   3. Keep pipe interiors free from dirt and foreign matter.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Piping materials are specified in the Buried Piping Schedule at end of this Section. Piping materials shall conform to Specifications for each type of pipe and piping appurtenances in applicable Sections of Division 40, Process Integration.

B. General:
   1. Pipe Markings:
      a. Manufacturer shall cast or paint on each length of pipe and each fitting pipe material, diameter, and pressure or thickness class.

2.2 BURIED PIPING IDENTIFICATION

B. Detectable Underground Warning Tape for Non-Metallic Pipelines:
   1. Tape shall be of inert, acid- and alkali-resistant, polyethylene, five mils thick, six inches wide, with aluminum backing, and have 15,000 psi tensile strength and 80 percent elongation capability. Tape shall be suitable for direct burial.
   2. Message shall read, "CAUTION SANITARY SEWER PIPE BURIED BELOW" with bold letters approximately two inches high. Messages shall be printed at maximum intervals of two feet. Tape shall be Green.
   3. Manufacturer: Provide products of one of the following:
      a. Brady Corporation

b. Seton Identification Products
c. Marking Services, Inc.
d. Or equal.

PART 3 - EXECUTION

3.1 INSTALLATION

A. General:
1. Install piping as shown, specified, and as recommended by pipe and fittings manufacturer.
2. In event of conflict between manufacturer's recommendations and the Contract Documents, request interpretation from ENGINEER before proceeding.
3. ENGINEER will observe excavations and bedding prior to laying pipe by CONTRACTOR. Notify ENGINEER in advance of excavating, bedding, pipe laying, and backfilling operations.
4. Minimum cover over buried piping shall be 5.0 feet, unless otherwise shown or approved by ENGINEER.
5. Earthwork is specified in Section 31 23 16.13, Trenching.
6. Excavation in excess of that required or shown, and that is not authorized by ENGINEER shall be filled at CONTRACTOR's expense with granular material furnished, placed, and compacted in accordance with Section Section 31 23 16.13, Trenching.

B. Separation of Sewers and Potable Water Piping:
1. Horizontal Separation:
   a. Where possible, existing and proposed potable water mains and service lines, and sanitary, combined, and storm sewers shall be separated horizontally by clear distance of at least ten feet.
   b. If local conditions preclude the specified clear horizontal separation, installation will be allowed if potable water main is in separate trench or on undistributed earth shelf on one side of sewer and with bottom of potable water main at least 18 inches above top of sewer.
   c. Exception:
      1) Where it is not possible to provide minimum horizontal separation described above, construct potable water main of cement-lined ductile iron pipe with restrained push-on joint or restrained mechanical joint pipe complying with public water supply design standards of authority having jurisdiction. Hydrostatically test water main and sewer as specified in this Section prior to backfilling. Hydrostatic test pressure at crossing shall be at least 150 psi.
2. Vertical Separation:
   a. Provide minimum vertical distance of 18 inches between outside of potable water main and outside of sewer when sewer crosses over potable water main.

b. Center a section of potable water main pipe at least 17.5 feet long over sewer so that sewer joints are equidistant from potable water main joints.

c. Provide adequate structural support where potable water main crosses under sewer. At minimum, provide compacted select backfill for ten feet on each side of crossing.

d. Exceptions:

1) Where it is not possible to provide minimum vertical separation described above, construct potable water main of cement-lined ductile iron pipe with restrained push-on joint or restrained mechanical joint pipe. Hydrostatically test water main and sewer as specified in this Section, prior to backfilling. Hydrostatic test pressure at crossing shall be at least 150 psi.

2) Encase either potable water main or sewer in watertight carrier pipe extending ten feet on each side of crossing, measured perpendicular to potable water main.

C. Plugs:

1. Temporarily plug installed pipe at end of each day of work or other interruption of pipe installation to prevent entry of animals, liquids, and persons into pipe, and entrance or insertion of deleterious materials into pipe.
2. Install standard plugs in bells at dead ends, tees, and crosses. Cap spigot and plain ends.
3. Fully secure and block plugs, caps, and bulkheads installed for testing to withstand specified test pressure.
4. Where plugging is required for phasing of the Work or subsequent connection of piping, install watertight, permanent type plugs, caps, or bulkhead acceptable to ENGINEER.

D. Bedding Pipe: Bed pipe as specified and in accordance with details on the Drawings.

1. Trench excavation and backfill, and bedding materials shall conform to Section 31 23 16.13, Trenching, as applicable.
2. Where ENGINEER deems existing bedding material unsuitable, remove and replace existing bedding with approved granular material furnished, placed, and compacted in accordance with Section Section 31 23 16.13, Trenching. Payment for additional excavation and providing granular material will be made under the unit price payment items in the Contract.
4. Excavate trenches below bottom of pipe by amount shown and indicated in the Contract Documents. Remove loose and unsuitable material from bottom of trench.
5. Carefully and thoroughly compact pipe bedding with hand held pneumatic compactors.
6. Do not lay pipe until ENGINEER approves bedding condition.
7. Do not bring pipe into position until preceding length of pipe has been bedded and secured in its final position.

E. Laying Pipe:

1. Conform to manufacturer's instructions and requirements of standards and manuals listed below, as applicable:
   a. Thermoplastic Pipe: ASTM D2321, ASTM D2774.
   b. Sanitary and Storm Sewers: ASCE 37.
2. Install pipe accurately to line and grade shown and indicated in the Contract Documents, unless otherwise approved by ENGINEER. Remove and reinstall pipes that are not installed correctly.
3. Slope piping uniformly between elevations shown.
4. Keep groundwater level in trench at least 24 inches below bottom of pipe before laying pipe. Do not lay pipe in water. Maintain dry trench conditions until jointing and backfilling are complete. Keep clean and protect interiors of pipe, fittings, valves, and appurtenances.
5. Start laying pipe at lowest point and proceed towards higher elevations, unless otherwise approved by ENGINEER.
6. Place bell and spigot-type pipe so that bells face the direction of laying, unless otherwise approved by ENGINEER.
7. Excavate around joints in bedding and lay pipe so that pipe barrel bears uniformly on trench bottom.
8. Deflections at joints shall not exceed 75 percent of amount allowed by pipe manufacturer, unless otherwise approved by ENGINEER.
9. Carefully examine pipe, fittings, and specials for cracks, damage, and other defects while suspended above trench before installation. Immediately remove defective materials from the Site and replace with acceptable products.
10. Inspect interior of all pipe, fittings, and specials and completely remove all dirt, gravel, sand, debris, and other foreign material from pipe interior and joint recesses before pipe and appurtenances are moved into excavation. Bell and spigot-type mating surfaces shall be thoroughly wire brushed, and wiped clean and dry immediately before pipe is laid.
11. Field cut pipe, where required, with machine specially designed for cutting the type of pipe being installed. Make cuts carefully, without damage to pipe, and with smooth end at right angles to axis of pipe. Cut ends on push-on joint type pipe shall be tapered and sharp edges filed off smooth. Do not flame-cut pipe.
12. Do not place blocking under pipe, unless specifically approved by ENGINEER for special conditions.
13. Notify ENGINEER in advance of backfilling operations.
14. On steep slopes, take measures acceptable to ENGINEER to prevent movement of pipe during installation.
15. Exercise care to avoid flotation when installing pipe in cast-in-place concrete, and in locations with high groundwater.

F. Jointing Pipe:

1. Thermoplastic Pipe Joints:
   a. Bell and Spigot Joints:
      1) Bevel pipe ends, remove all burrs, and provide a reference mark at

correct distance from pipe end before making joints.

2) Clean spigot end and bell thoroughly before making the joint. Insert O-ring gasket while ensuring that gasket is properly oriented. Lubricate spigot with manufacturer's recommended lubricant. Do not lubricate bell and O-ring. Insert spigot end of pipe carefully into bell until reference mark on spigot is flush with bell.

3.2 TRACER TAPE INSTALLATION

A. Detectable Underground Warning Tape for Non-Metallic Pipelines:
   1. Provide polyethylene tracer tape with aluminum backing for buried, non-metallic piping, which includes pipe that is PVC.
   2. Provide magnetic tracer tape 12 to 18 inches below finished grade, above and parallel to buried pipe.
   3.. Tape shall be spread flat with message side up before backfilling.

3.3 WORK AFFECTING EXISTING PIPING

A. Location of Existing Underground Facilities:
   1. Locations of existing Underground Facilities shown on the Drawings should be considered approximate.
   2. Determine the true location of existing Underground Facilities to which connections are to be made, crossed, and that could be disturbed, and determine location of Underground Facilities that could be disturbed during excavation and backfilling operations, or that may be affected by the Work.

B. Work on Existing Pipelines or Underground Facilities:
   1. Cut or tap piping or Underground Facilities as shown or required with machines specifically designed for cutting or tapping pipelines or Underground Facilities, as applicable.
   2. Install temporary plugs to prevent entry of mud, dirt, water, and debris into pipe.
   3. Provide necessary adapters, sleeves, fittings, pipe, and appurtenances required to complete the Work.
   4. Conform to applicable requirements of Section 01 14 16, Coordination with Owner's Operations, Section 01 73 29, Cutting and Patching, and Section 01 73 24, Connections to Existing Facilities.

3.4 FIELD QUALITY CONTROL

A. General:
   1. Test all piping, except as exempted in the Buried Piping Schedule in this Section.

2. When authorities having jurisdiction are to witness tests, notify ENGINEER and authorities having jurisdiction in writing at least 48 hours in advance of testing.
3. Conduct all tests in presence of ENGINEER.
4. Remove or protect pipeline-mounted devices that could be damaged by testing.
5. Provide all apparatus and services required for testing, including:
   a. Test pumps, compressors, hoses, calibrated gages, meters, test containers, valves, fittings, and temporary pumping systems required to maintain OWNER's operations.
   b. Temporary bulkheads, bracing, blocking, and thrust restraints.
6. Provide air if an air test is required, power if pumping is required, and gases if gases are required.
7. Repair observed leaks and repair pipe that fails to meet acceptance criteria. Retest after repair.

B. Test Schedule:
1. Refer to the Buried Piping Schedule in this Section for type of test required and required test pressure.
2. Unless otherwise specified, required test pressures are at lowest elevation of pipeline segment being tested.
3. For piping not listed in Buried Piping Schedule in this Section:
   a. Hydrostatically test pipe that will convey liquid at a pressure greater than five psig. Provide process air pipe test for pipe that will convey air or gas under pressure or vacuum, except chlorine gas, which requires separate test.
   b. Use exfiltration testing, low-pressure air testing, or vacuum testing for other piping.
   c. Disinfect for bacteriological testing piping that conveys potable water.
4. Test Pressure:
   a. Use test pressures listed in Buried Piping Schedule in this Section.
   b. If test pressure is not listed in Buried Piping Schedule, or if test is required for piping not listed in the Buried Piping Schedule, test pressure will be determined by ENGINEER based on maximum anticipated sustained operating pressure and methods described in applicable ANSI/AWWA manual or standard that applies to the piping system.

C. Exfiltration Testing:
1. Plug and bulkhead ends and lateral connections of pipe segment to be tested and admit fluid until the pipe is full. Admit fluid slowly to minimize air entrapment. Groundwater level shall be below the pipe during exfiltration test.
2. Provide minimum hydrostatic head during test of two feet above crown of upstream end of pipe segment tested.
3. Add fluid from test container or from metered supply as required to maintain test water level within three inches of test head throughout the test.
4. Test duration shall be at least two hours.

5. Allowable Leakage Rates:
   a. Leakage is defined as the quantity of fluid that must be supplied to pipe segment tested to maintain hydrostatic head within three inches of test head during the test after pipe has been filled and exposed to required wetting period, plus quantity required to refill to original head at end of test.
   b. Leakage shall not exceed that allowed by authority having jurisdiction.

D. Sewer Testing with Low Pressure Air:
   1. Plug and bulkhead ends and lateral connections of pipe segment to be tested.
   2. Required test pressure shall be increased by an amount equal to the elevation of groundwater above invert of lowest point of pipe segment being tested.
   3. Test in accordance with requirements of authority having jurisdiction.
   4. If there are no Laws and Regulations covering the test, use test procedures described in the following standards:
      a. Thermoplastic and HDPE Pipe: ASTM F1417.

E. Vacuum Testing:
   1. Plug and bulkhead ends and lateral connections of pipe segment or manhole to be tested.
   2. Following set-up of test apparatus, draw vacuum of ten inches of mercury on pipe segment or manhole being tested.
   3. Start test upon reaching specified test vacuum. Test duration shall be 15 minutes.
   4. Record vacuum drop at end of test. If vacuum drop is greater than one inch of mercury, pipe segment or manhole fails the test and shall be repaired and retested. If vacuum drop is less than one inch of mercury, pipe segment or manhole passes the test.

F. Vertical Deflection Test for Thermoplastic Pipe:
   1. Conduct vertical deflection test at least thirty days after backfill has been placed.
   2. Use rigid ball or mandrel for deflection test, which shall have diameter of at least 95 percent of base inside diameter or average inside diameter of piping, depending on which is specified in applicable ASTM standard, including appendix, to which pipe is manufactured. Perform test without mechanical pulling devices. Re-install and retest pipe segments that exceed deflection of five percent.

3.5 CLEANING

A. Cleaning, General: Clean pipe systems as follows:
   1. Thoroughly clean all piping, including flushing with water, dry air, or inert gas as required, in manner approved by ENGINEER, prior to placing in service.

2. Piping 24-inch diameter and larger shall be inspected from inside and debris, dirt and foreign matter removed.

3.6 SCHEDULES

A. Schedules listed below, following the "End of Section" designation, are part of this Specification section.
   1. Table 33 05 05-A, Buried Piping Schedule.

TABLE 33 05 05-A, BURIED PIPING SCHEDULE

Service	Diameter (inch)	Material	Pressure Class/ Thickness	Joint	Test	Remarks
SAN	24	PVC	SDR 21	BS	VD and EX or AIR or VAC	Notify Engineer of Selected Test Methods

The following abbreviations are used in the Buried Piping Schedule.

A. Service Abbreviations

Service	Abbrev
Sanitary Sewer	SAN

B. Material Abbreviations

Material	Abbrev
Polyvinyl Chloride	PVC

C. Joint Abbreviations

Joint Type	Abbrev
Bell and Spigot	BS

D. Test Abbreviations

Test	Abbrev
Exfiltration	EX
Low-pressure Air Sewer Test	AIR
Vacuum Test	VAC
Vertical Deflection	VD

+ + END OF SECTION + +

SECTION 40 05 31

THERMOPLASTIC PROCESS PIPE

PART 1 – GENERAL

1.1 DESCRIPTION

A. Scope:
   1. CONTRACTOR shall provide all labor, materials, equipment, and incidentals as shown, specified, and required to furnish and install thermoplastic piping and fittings.
   2. Extent of piping is shown and shall be in accordance with piping schedules in Section 33 05 05, Buried Piping Installation.

B. Coordination:
   1. Review installation procedures under this and other Sections and coordinate installation of items to be installed with or before thermoplastic piping Work.

C. Related Sections:
   1. Section 33 05 05, Buried Piping Installation.

1.2 REFERENCES

A. Standards referenced in this Section are:
   1. AASHTO, Standard Specifications for Highway Bridges.
   2. ASTM D1784, Specification for Rigid Poly (Vinyl Chloride) (PVC) Compounds and Chlorinated Poly (Vinyl Chloride) (CPVC) Compounds.
   3. ASTM D2665, Specification for Poly (Vinyl Chloride) (PVC) Plastic Drain, Waste, and Vent Pipe and Fittings.
   4. ASTM D3034, Specification for Type PSM Poly (Vinyl Chloride) (PVC) Sewer Pipe and Fittings.
   5. ASTM D3212, Specification for Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals.
   6. ASTM F477, Specification for Elastomeric Seals (Gaskets) for Joining Plastic Pipe.
   7. ASTM F656, Specification for Primers for Use in Solvent Cement Joints of Poly (Vinyl Chloride) (PVC) Plastic Pipe and Fittings.
   8. ASTM F679, Specification for Poly (Vinyl Chloride) (PVC) Large-Diameter Plastic Gravity Sewer Pipe and Fittings.
   9. ASTM F1336, Specification for Poly (Vinyl Chloride) (PVC) Gasketed Sewer Fittings.
   10. ASTM F1674, Standard Test Method for Joint Restraint Products for Use with PVC Pipe.

11. ASTM F1760, Specification for Coextruded Poly (Vinyl Chloride) (PVC) Non-Pressure Plastic Pipe Having Reprocessed-Recycled Content.
12. NSF 14, Plastic Piping Systems Components and Related Material.
13. Standards of U.S. Food and Drug Administration.

1.3 QUALITY ASSURANCE

A. Qualifications:
   1. Manufacturer: Shall have a minimum of five years experience producing thermoplastic pipe and fittings substantively similar to the materials specified, and shall be able to submit documentation of satisfactory service in at least five completed installations in operation for at least five years each.
   2. Installer:
      a. Engage a single pipe installer who shall be responsible for all thermoplastic pipe Work, and who shall employ only tradesmen with specific skills and experience in the type of Work required.
      b. Installer shall have a minimum of five years experience installing thermoplastic pipe and fittings substantively similar to the materials specified and substantively similar to or larger than the scope of thermoplastic piping Work on the Project, and shall be able to submit documentation of satisfactory experience in at least five completed installations in operation for at least five years each.

B. Component Supply and Compatibility:
   1. Obtain all materials included in this Section, regardless of component Supplier, from a single thermoplastic pipe Supplier. All pipe of each material type shall be furnished by the same manufacturer.
   2. Thermoplastic pipe Supplier shall review and approve to prepare all Shop Drawings and other submittals for all materials furnished under this Section.
   3. Materials shall be suitable for specified service conditions and shall be integrated into overall assembly by thermoplastic pipe Supplier.

1.4 SUBMITTALS

A. Action Submittals: Submit the following:
   1. Shop Drawings:
      a. Submit piping layout Shop Drawings in accordance with Section 33 05 05, Buried Piping Installation.
   2. Product Data:
      a. Submit product data on pipe, fittings, gaskets, hardware, and appurtenances sufficient to demonstrate compliance with the Contract Documents.

B. Informational Submittals: Submit the following:
   1. Certificates:

a. Submit manufacturer's certificate of compliance standards referenced in this Section.

2. Source Quality Control Submittals:
   a. When requested by ENGINEER, submit results of source quality control tests.
3. Qualifications Statements:
   a. Submit qualifications of manufacturer when requested by ENGINEER.
   b. Submit qualifications of installer when requested by ENGINEER.

1.5 DELIVERY, STORAGE AND HANDLING

A. Refer to Section 33 05 05, Buried Piping Installation.

PART 2 – PRODUCTS

2.1 SERVICE CONDITIONS

A. General:
   1. Pipe materials shall be suitable for services intended. Refer to piping schedule in Section 33 05 05, Buried Piping Installation.
   2. Pipe shall be homogeneous throughout and free of visible cracks, holes, foreign inclusions, and other defects. Unless otherwise shown or indicated, pipe shall be uniform in color, opacity, density, and other physical properties.
   3. Comply with NSF 14.
   4. Buried pipe shall be capable of withstanding external live load, including impact, equal to AASHTO H-20 loading, with cover shown or indicated on the Drawings.

2.2 POLYVINYL CHLORIDE (PVC) PIPING

A. Buried PVC Gravity Sewer Pipe.
   1. Manufacturers: Provide products of one of the following:
      a. Ipex, Inc.
      b. Diamond Plastics Corp.
      c. Or equal.
   2. Material:
      a. Pipe shall comply with ASTM F679.
      b. Wall Thickness and Pipe Stiffness: Pipe stiffness shall be determined in accordance with test methods in ASTM F679.
         1) Main Line: SDR 35, with minimum ring stiffness of 46 psi.
   3. Fittings:
      a. Injection-molded, gasketed fittings shall comply with ASTM F1336, and ASTM F679.
      b. Fabricated fittings shall comply with ASTM F1336.

c. Unless otherwise shown or indicated, saddle wyes are unacceptable.

4. Joints:
   a. Provide bell and spigot joints. Bell shall consist of an integral wall section to hold securely in place (and prevent displacement during assembly of joint) elastomeric O-ring gasket.
   b. Jointing lubricant shall be as recommended by pipe manufacturer.
   c. Provide elastomeric gaskets complying with ASTM F477, and ASTM D3139 or ASTM D3212.

2.3 IDENTIFICATION

A. Pipe material identification requirements are in Section 33 05 05, Buried Piping Installation, and Section 40 05 05, Exposed Piping Installation.

2.4 SOURCE QUALITY CONTROL

A. Shop Tests:
   1. Pipe manufacturer shall maintain continuous quality control program.
   2. Where applicable and when requested by ENGINEER, submit results of source quality control tests specified in reference standards.

PART 3 - EXECUTION

3.1 INSPECTION

A. Inspect pipe materials for defects in material and workmanship. Verify compatibility of pipe and fittings.

3.2 INSTALLATION

A. For buried piping installation, refer to Section 33 05 05, Buried Piping Installation.

+ + END OF SECTION + +

SECTION 43 26 23

STAINLESS STEEL SLIDE GATES

PART 1 - GENERAL

1.1 DESCRIPTION

A. Scope:
   1. CONTRACTOR shall provide all labor, materials, equipment and incidentals as shown, specified and required to furnish and install stainless steel slide gates and appurtenances complete and operational.
   2. Included are stainless steel slide gates, anchorage systems and all appurtenances.
   3. Extent of the equipment is shown on the Stainless Steel Slide Gate Schedule located at the end of this Section.

B. Coordination:
   1. Review installation procedures under this and other Sections and coordinate the installation of items that must be installed with, or before the stainless steel slide gates Work.

C. Related Sections:
   1. Section 03 00 05, Concrete.
   2. Section 03 60 00, Grouting.
   3. Section 09 91 00, Painting.

1.2 REFERENCES

A. Standards referenced in this Section are listed below:
   1. American Society for Testing and Materials, (ASTM).
      a. ASTM A 276, Specification for Stainless Steel Bars and Shapes.
      b. ASTM B 584, Specification for Copper Alloy Sand Castings for General Applications
   2. National Electrical Code, (NEC).
   3. National Electrical Manufacturers' Association, (NEMA).

1.3 QUALITY ASSURANCE

A. Manufacturer's Qualifications:
   1. Manufacturer shall have a minimum of five years of experience of producing substantially similar equipment and shall be able to show evidence of at least five installations in satisfactory operation for at least five years.
   2. Stainless steel slide gates shall be the product of one manufacturer.

B. Component Supply and Compatibility:
   1. Obtain all equipment included in this Section regardless of the component manufacturer from a single stainless steel slide gate manufacturer.
   2. The stainless steel slide gate equipment manufacturer to review and approve or to prepare all Shop Drawings and other submittals for all components furnished under this Section.
   3. All components shall be specifically designed for the specified service and shall be integrated into the overall assembly by the stainless steel slide gate equipment manufacturer.

1.4 SUBMITTALS

A. Action Submittals: Submit the following:
   1. Shop Drawings:
      a. Fabrication, assembly and installation diagrams.
      b. Setting drawings, templates, and directions for the installation of anchor bolts and other anchorages.
   2. Product Data:
      a. Manufacturer's literature, illustrations, specifications and engineering data.
      b. Deviations from the Contract Documents.
      c. Lubricant Specification: Furnish a lubricant specification for the type and grade necessary to meet the requirements of the equipment.

B. Informational Submittals: Submit the following:
   1. Support Design Information:
      a. Submit for record purposes only the weight of each slide gate and expected opening and closing thrust loads on the supporting structure.
   2. Shop Test Results:
      a. Submit results of required shop tests.
   3. Field Test Results:
      a. Submit a written report giving the results of the field tests required.

C. Closeout Submittals:
   1. Operation and Maintenance Manuals:
      a. Submit complete Installation, Operation and Maintenance Manuals including, test reports, maintenance data and schedules, description of operation and spare parts information.
      b. Furnish Operation and Maintenance Manuals in conformance with the requirements of Section 01 78 23, Operations and Maintenance Data.

1.5 DELIVERY, STORAGE AND HANDLING

A. Packing, Shipping, Handling and Unloading:

1. Deliver materials to the Site to ensure uninterrupted progress of the Work. Deliver anchor bolts and anchorage devices which are to be embedded in cast-in-place concrete in ample time to prevent delay of that Work.
2. Handle all stainless steel slide gates and appurtenances properly, in accordance with manufacturer's recommendations. Stainless steel slide gates, which are distorted or otherwise damaged, will not be acceptable. Protect all bolt threads and ends from damage.

B. Storage and Protection:
1. Store materials to permit easy access for inspection and identification. Keep all material off the ground, using pallets, platforms, or other supports. Protect steel members and packaged materials from corrosion and deterioration.
2. Store all mechanical equipment in covered storage off the ground and prevent condensation.

C. Acceptance at Site:
1. All boxes, crates and packages shall be inspected by CONTRACTOR upon delivery to the Site. CONTRACTOR shall notify ENGINEER, in writing, if any loss or damage exists to equipment or components. Replace loss and repair damage to new condition in accordance with manufacturer's instructions.

PART 2 - PRODUCTS

2.1 SERVICE CONDITIONS

A. General:
1. Design stainless steel slide gates to safely withstand conditions listed in Stainless Steel Slide Gate Schedule, located at the end of the Section.
2. Stainless steel slide gates shall be substantially watertight with leakage less than 0.5 gpm per foot of seating perimeter at design head.
3. Manual operators shall turn right to close, unless otherwise specified. Operators shall indicate the direction of operation.
4. Bolts, studs, cap screws, and adjusting screws shall be of ample section to withstand the force created by operation of the gate under a full head of water.
5. Downward opening stainless steel slide gates shall be capable of being lowered to an elevation below the invert of the channel or opening.

2.2 MANUFACTURERS

A. Manufacturers: Provide equipment of one of the following:
1. H. Fontaine Ltd.
2. Whipps, Inc.
3. Waterman Industries.
4. Or equal.

2.3 FABRICATION

A. Materials of Construction:
   1. Stainless Steel: For frame, slide, rail and yoke, ASTM A 276, Type 316 stainless steel. All metal for stainless steel slide gate parts shall have a minimum thickness of 1/4-inch.
   2. Bronze Casting: For operating nut, thrust nut and lift nut, ASTM B 584 Alloy 865.
   3. All bolts, studs, cap screws and adjusting screws shall be of Type 316 stainless steel.
   4. Bolts and nuts shall have hexagon heads.
   5. Gasket material and installation shall conform to manufacturer's recommendations.

B. Disc:
   1. Fabricate the slide or disc of ASTM A 276, Type 316 stainless steel plate reinforced with structural shapes attached by welding.
   2. Provide reinforcing to limit deflection under full head to not more than 1/360 of the span.
   3. Extend reinforcing ribs into the guides overlapping the seating surface of the guide.
   4. Weld stem mounting guides to the disc.

C. Disc Guides:
   1. Guides shall be of Type 316 stainless steel incorporating a sandwich type construction using plates and structural angles.
   2. Guides shall be designed for maximum rigidity as columns to take the thrust developed during the stainless steel slide gate operation under maximum head.
   3. Guides shall extend beneath the opening a sufficient amount to support the disc in the fully open or closed position.

D. Stem:
   1. Operating stems shall be of Type 316 stainless steel and designed as specified below.
   2. Design stem to transmit in compression at least 2-1/2 times the rated output of the operating mechanism with an 80-pound effort on the crank or handwheel. Determine the critical buckling load using the Euler column formula, using C = 2. Where hydraulic cylinder lifts are used, the stem design force shall not be less than 1.25 times the output thrust of the hydraulic cylinder with a pressure equal to the maximum working pressure of the hydraulic fluid supply. Where electric motor driven lifts are used, the stem design force shall not be less than 1.25 times the output thrust of the unit in the stalled motor condition.
   3. Stems shall have a slenderness ratio (L/R) less than 200.

4. Threaded portion of the stem shall have machined cut threads of the Acme type. Join stems of more than one section by stainless steel couplings threaded and keyed, or bored and pinned to the stems. All threaded and keyed couplings of the same size shall be interchangeable. Couplings shall be designed to be of greater strength than the stems.
5. Connect the stem to the disc by means of a bolted connection.
6. Provide rising stems with an adjustable stop collar on the stem above the floor stand lift nut.

E. Yoke:
1. Furnish tops of the extended guides with a yoke for mounting of the lifting device.
2. Construct the yoke of structural shapes of sufficient strength to take the full thrust created by operating the gate under the maximum specified head.
3. Attach the yoke to the framework by bolting or welding to permit removal of the gate slide and stem.

F. Lower Seals:
1. Mount a specially shaped resilient neoprene seal on the bottom of the disc to provide flush-bottom closure for stainless steel slide gates. As an alternate, a poured urethane seal shall be mounted in the invert of the frame to form a flush bottom seal.
2. Shape of the seal shall produce a seating surface having a minimum width of 3/4-inch, and the seal will extend beyond the seating surface of the frame.
3. Vertical face of the seal shall be in contact with the seating surface of the guide to provide a proper seal at the corners.

G. Side and Upper Seals:
1. Side and upper seals shall be fabricated from ultra high molecular weight (UHMW) polyethylene or UHMW polymer. UHMW bearing strips shall be mechanically retained to lock seat in place.

2.4 APPURTENANCES

A. Stem Guides:
1. Stem guides shall be fabricated from Type 316 stainless steel and shall be equipped with UHMW polyethylene or UHMW polymer.
2. Guides shall be adjustable in two directions and shall be spaced so that stems have a maximum unsupported length of 84-inches.
3. Anchor bolts for stem guides shall be Type 316 stainless steel.

B. Anchor Bolts:
1. Provide Type 316 stainless steel anchor bolts as required for stem guides, floor stands, and all equipment or appurtenances, which must be secured to concrete walls or floors. Anchor bolts shall be of ample size and strength for the

purpose intended, and shall be furnished by the manufacturer. Anchor bolts shall be hooked, and provided for direct embedment during placement of concrete.

C. Valve Boxes:
   1. Valve boxes shall be as indicated and as required.
   2. Type: Heavy-duty, suitable for highway loading, two-piece telescopic, and adjustable. Lower section shall enclose valve operating nut and stuffing box and rest on valve bonnet.
   3. Material: Cast-iron or ductile iron.
   4. Coating: Two coats of asphalt varnish conforming to FS TT-C-494.
   5. Marking: As required for service.
   6. Provide one T-handle style wrench.

D. Identification: Identify each stainless steel slide gate with a stainless steel nameplate stamped with the approved designation as shown in the Stainless Steel Slide Gate Schedule, located at the end of this Section. Nameplate shall be permanently fastened to the gate at the factory.

2.5 SURFACE PREPARATION AND PAINTING

A. Clean, prime coat, and finish coat ferrous metal surfaces of equipment in the shop in accordance with the requirements of Section 09 91 00, Painting.

B. Coat machined, polished and non-ferrous surfaces bearing surfaces and similar unpainted surfaces with corrosion prevention compound, which shall be maintained during storage, and until equipment begins operation.

C. CONTRACTOR shall certify, in writing, that the shop primer and coating system conforms to the requirements of Section 09 91 00, Painting.

2.6 SOURCE QUALITY CONTROL

A. Shop Tests:
   1. Test each stainless steel slide gate fully assembled in the vertical position for proper seating.
   2. Fully open and close gate disc in its guide system to ensure that it operates freely.
   3. Operate and test floor stands, bench stands and motor operators to ensure proper assembly and operation.

2.7 SLIDE GATE SCHEDULE

A. The Stainless Steel Slide Gate Schedule is located at the end of this Section. Conform to type, size, operation and other data specified, unless otherwise approved by ENGINEER.

B. Provide all stainless steel slide gates as shown and listed in the schedule.

C. Schedule Abbreviation:
   1. Type:
      a. EF - Embedded Frame.
      b. SM - Surface Mounted Frame.
      c. WG - Downward Opening Weir Gate.
   2. Operator Type:
      a. CO - Crank Operated.
      b. HW - Handwheel.
      c. NO – Square Nut Operated.

D. The seating and unseating design head as stated in the Stainless Steel Slide Gate Schedule is based on the head measured to the centerline of the gate in its closed position.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install stainless steel slide gate equipment in accordance with manufacturer's instructions and recommendations.

B. Brace guides and frames during placement of concrete.

C. Set anchor bolts in accordance with approved Shop Drawings and manufacturer's recommendations.

D. Adjust all parts and components as required to provide correct operation.

3.2 START-UP AND FIELD TESTS

A. After CONTRACTOR and ENGINEER have mutually agreed that the equipment installation is complete and ready for continuous operation, CONTRACTOR and a qualified field service representative of the manufacturer shall conduct a functional field test and a leakage test of each stainless steel slide gate in the presence of ENGINEER to demonstrate that each stainless steel slide gate furnished will function correctly and that maximum permissible leakage is not exceeded.
   1. Functional Tests:

a. Each stainless steel slide gate with appurtenances shall be field-tested. Tests shall demonstrate to ENGINEER that each part and all parts together function in the manner intended. All necessary testing equipment and manpower shall be provided by CONTRACTOR at their expense. CITY will furnish all power, and incidental material and labor required for the tests.

2. Leakage Tests:
   a. Maximum permissible leakage shall be in accordance with the requirements of Paragraph 2.1, above. Excess leakage shall be reduced to meet specified requirements by adjusting the gate, or replacement will be required.

3. In the event that the manufacturer is unable to demonstrate to ENGINEER that their equipment meets the requirements of the tests, the deficient equipment will be rejected and CONTRACTOR shall adjust and/or modify and retest the equipment as often as necessary to meet the specified requirements. No separate payments shall be made for adjustments and/or modifications.

3.3 MANUFACTURER'S SERVICES

A. A factory trained representative shall be provided for installation supervision, start-up and test services and operation and maintenance personnel training services. The representative shall make a minimum of 1 visit, minimum 8 hours on-Site for the visit, to the Site. The first visit shall be for assistance in the installation of equipment. Subsequent visits shall be for checking the completed installation, start-up and training of the system. Manufacturer's representative shall test operate the system in the presence of the ENGINEER and verify that the equipment conforms to the requirements. Representative shall revisit the Site as often as necessary until all trouble is corrected and the installation is entirely satisfactory.

B. All costs, including travel, lodging, meals and incidentals, for additional visits shall be at no additional cost to the CITY.

STAINLESS STEEL SLIDE GATE SCHEDULE

Gate ID	Location	Type	Opening Size (W x H)	Stem	Gate Invert Elevation[2]	Design Head (Seating/ Unseating)[1]	Operator
ESI-1	East Side Interceptor Vault	SM	24" x 24"	Non-Rising	996.65	6.0 ft	ON
ESI-2	East Side Interceptor Vault	SM	24" x 24"	Non-Rising	996.65	6.0 ft	ON

Note 1: Design head measured from invert of gate.
Note 2: Gate invert elevation shall be field verified prior to ordering Gate

+ + END OF SECTION + +

Supplemental Specification 01-00

PROJECT DOCUMENTATION AND SUBMITTAL REQUIREMENTS FOR ALL PUBLIC WORK PROJECTS AND SUBDIVISION DEVELOPMENTS

September, 2000
* Revised March, 2001

01.00 Project Submittals
01.01 Shop Drawings
01.02 Preconstruction Video
01.03 Progress Schedule
01.04 Release Statement for Disposal of Excavated Material
01.05 Traffic Control Plan
01.06 Contractor and Subcontractor Emergency Contact List
01.07 Statements of Final Compliance

01.00 PROJECT SUBMITTALS: The listed items shown above are the full responsibility of the **Prime Contractor** and or **Developer/Contractor**, hereafter shown as "**Contractor**", and shall be made part of the administrative duties imposed upon this Contract. The Contractor shall be responsible for submitting all detail items prior to the contract Notice of Commencement, or as directed by the City's Project Manager. All items shall be accompanied by a typewritten letter, on Company letterhead, clearly describing what is being submitted. If Contractor elects to fax any documentation due to expediency, the Contractor will be responsible for submitting hard copy for project documentation. Any and all submittals not clearly legible will be rejected.

All project submittals should be submitted with four copies, unless otherwise denoted.

Contractor will clearly affix a label or stamp identifying the submittal and its status for project review. Submittals shall be made in sufficient time to allow **at least 10 business days** for City's review and execution. The City Project Manager shall assist the Contractor with any questions or clarification during this process to ensure timely response to the Contractor. All actions noted by the City other than "no exception taken" will require supporting notation or information for project review.

Payment for the performance of the work hereafter listed shall not be paid for directly, and shall be considered as a subsidiary obligation of the Contractor.

01.01 SHOP DRAWINGS:

a) Upon written request from the Engineer, the Contractor shall submit detailed drawings, acceptable catalog data, specification and material certifications for all materials and/or equipment specialized or required for the proper completion of the work.

b) Shop Drawings shall be submitted in not less than four (4) copies to the Engineer.

c) Shop Drawings shall be submitted in proper sequence of construction to cause no delay in the work. The Engineer shall be given ten (10) business days to review submittals. The Contractor's failure to transmit appropriate submittals to the Engineer sufficiently in advance of work shall not be grounds for time extension. Also, no work shall be performed requiring shop drawings until same have been approved by the Engineer.

d) Each Shop Drawing shall be labeled with the following:

1. Project Name
2. General Project Number (GP XXXX), if applicable
3. Subdivision Description, if applicable
4. Name of Contractor
5. Name of Subcontractor (if applicable)
6. Name and Address of Supplier and/or Manufacturer
7. Log Reference Number

e) The Contractor is responsible for reviewing and approving all shop drawings prior to submittal. The Engineer's review shall not be construed as placing on himself any responsibility for the accuracy of said drawings.

01.02 PRECONSTRUCTION VIDEO: Prior to actual construction, the Contractor shall have taken televised videos of the entire length and width of the work site.

a) The Contractor shall notify the Engineering Department prior to scheduling the televising of the site. A representative of the Engineering Department shall be present when video is taken.

b) Video shall be recorded on DVD. The video and audio recordings shall be compatible for replay on standard DVD devices.

c) The video portion of the DVD shall have continuous time and date incorporated into it. DVD's shall be numbered consecutively along the site of the work. The locations and person(s) doing the work shall also be recorded.

d) All DVD's shall become the property of the Engineer, and shall be submitted to and accepted in full by the Engineering Department prior to the start of construction.

01.03 PROGRESS SCHEDULE: The Contractor shall provide to the City, as mutually agreed upon at the Contract's Preconstruction meeting, a graphic progress schedule, which shall include the following:

a) Progress schedule as a minimum to be prepared in bar graph fashion. The schedule shall be submitted, as a minimum, on 11" x 17" format for clarity and any necessary notations. Progress schedule shall include all work activities relative to the project, as further described in the Contract. Activities and rate of expected progress to secure completion as set forth in the Contract shall be shown on the schedule. Contractor to annotate any milestones that may be indicated in the Contract. Project completion date shall be clearly defined on the original schedule and all ensuing schedules provided.

b) Schedules shall be updated, as a minimum, every 30 days, or as agreed to by the City's Project Manager.

01.04 RELEASE STATEMENT FOR DISPOSAL OF EXCAVATED MATERIAL:

a) The Contractor shall provide to the City a written consent statement from all property owners that may be used as landfilled depositories for all surplus or unsuitable excavated material from the project site.

b) The Contractor shall follow ODOT 203.05 for specific guidelines and name the "City of Canton" in lieu of "the Department" on all forwarded documents.

*c) See attached sample copy for referencing purposes.

01.05 TRAFFIC CONTROL PLAN: Contractor shall submit a graphical presentation or written document detailing the signage to be used and its location for maintenance of traffic. If traffic control will be performed in stages, submit a plan for each stage. Any proposed detours should be approved by the City Traffic Engineer prior to plan submission.

01.06 CONTRACTOR AND SUBCONTRACTOR EMERGENCY CONTACT LIST: Contractor shall submit to the Engineer, prior to commencing construction, a complete list of the Contractor's personnel associated with the project. The list should include name, title, and emergency contact phone numbers for each individual.

01.07 STATEMENT OF FINAL COMPLIANCE: The Contractor shall submit to the City the following documentation, in addition to the Project's General Conditions. All submittals shall be completed and approved prior to the release of the final retainer.

a) Certificates of Substantial and Final Completion Contractor to submit in writing, the date on which work is substantially completed and upon Final Completion. Any deviation from the stated contract completion date to what is being submitted shall be explained further by the Contractor. The City, at their discretion, will further review this subject, as needed. Not applicable for subdivision projects.

b) Final Waiver of Lien Contractor shall furnish a written report indicating the resolution of any and all property damage claims filed with Contractor by any party during the contract period. The information shall include the name of claimant; date filed with Contractor; name of Insurance Company and/or Adjustor handling the claim; how the claim was resolved; if claim was not resolved for the full amount, a statement indicating the reason for such action. If there were no damage claims filed with the Contractor, then this shall be so stated in the report.

Supplemental Specification 02-00

TESTING FOR EXCESSIVE DEFLECTION FOR NON-PRESSURE THERMOPLASTIC SEWER PIPE

September 2000

02.01 Description
02-02 Material
02-03 Testing for Deflection
02-04 Correcting/Repairing
02-05 Basis of Acceptance
02-06 Reference Material
02-07 Table 1, Deflection Diameter List

02.01 DESCRIPTION. This item shall consist of furnishing all labor, material and equipment, including all cleaning and flushing of new sewers to complete this test for approval by the City.

The cost for all work related to this item shall be considered incidental to the cost of the new sewer. No separate payment will be made by the City.

All main line sanitary sewers 8" in diameter and larger shall be tested for a maximum deflection of 5% of the pipe average inside diameter not less than 30 days after final full backfill, including all compaction efforts and jetting has been placed, as determined by the City. The average inside diameter is determined by the latest edition of ASTM D 3034, Appendix X1.

02.02 MATERIAL. The tests shall be conducted using electronic equipment specifically designed for measuring and recording deflection in flexible pipe or by the use of an approved deflection probe, having a diameter equal to 95% of the average inside diameter of the pipe being tested, pulled through the sewer line. See Table 1.for additional information.

The deflection probe shall be as available from Wortco, Inc.; Burke Concrete Accessories, Inc.; or equal, and shall be designed specifically for testing the deflection of the type of pipe specified. The probe shall incorporate an odd number (no less than 9) of ½" x 3/16" bar stock runners equally spaced on edge around and welded to the circumference of two minimum 1/4" thick circular steel plates. The diameter of the probes for the types and nominal sizes of the pipes to be tested shall be equal to 95% of the average inside diameter of the respective pipes as specifically given or determined by the Engineer from information given in the appropriate ASTM Standard for the pipe. The distance between plates, out-to-out, shall not be less than 2" smaller than the nominal diameter of the pipe to be tested. The runners shall extend approximately 1-1/2" beyond each plate, being bent inward for this distance at approximately 30°. A continuous 3/4" threaded rod shall be provided through the center of the plates, having a hex nut drawn tight against the

inside face of each plate, and extending each side as required for providing a 3/4" ferrule loop insert or similar piece for attaching the pulling medium.

02.03 TESTING FOR DEFLECTION. The Contractor shall schedule with the City's Project Representative at least 48 hours in advance to the commencement of test.

The Contractor shall assign personnel or firm familiar with testing procedures and their requirements set forth.

The Contractor and City's Project Representative shall be present at all times during the testing procedure. All testing results shall be documented and recorded, at the time of test, on the City's approved test form.

Deflection test shall be performed between two consecutive manholes. If deflection probe is used, test shall be performed without mechanical pulling devices. Prior to the use of said deflection probe, a proving ring, provided by the Contractor and approved by the City, shall be available at the time the probe is used. The proving ring shall have an I. D. equal to the approved O. D. of the probe.

02.04 CORRECTING OR REPAIRING. If deflection probe becomes stuck or stopped for any reason between manholes, Contractor shall immediately notify the City Project Representative.

Contractor shall be responsible for all corrective procedures, methods and operational techniques. Following correctional procedure, as approved by the City, the Contractor shall be obligated to retest the section of pipe, as previously tested. If repair necessitated a replacement of pipe, the City reserves the right to require an additional retest of the said section, 30 days following this repair. All labor, material, and equipment necessary for correcting any new section of sewer shall be the responsibility of the Contractor.

02.05 BASIS OF ACCEPTANCE. In order for the City to consider a system , in part or whole, approved in this testing procedure, all deflection testing methods, as approved, shall be proofed from manhole structure to manhole structure.

02.06 REFERENCE MATERIAL. The City may reference ASTM D3034-96 for supplemental information.

02.07 Table 1, Deflection Diameter List

TABLE 1

THERMOPLASTIC PIPE, PVC, SDR 35
AVERAGE INSIDE DIAMETERS
5.0% DEFLECTION MANDREL DIMENSIONS

(DERIVED FROM ASTM D 3034)

NOMINAL PIPE SIZE (IN.)	SDR	AVERAGE INSIDE DIAMETER (IN.)	O. D. OF **5.0%** DEFLECTION PROBE (IN.)
6	35	5.893	5.60
8	35	7.891	7.50
10	35	9.864	9.37
12	35	11.737	11.15
15	35	14.374	13.65

Supplemental Specification 03-00

TESTING PRACTICES FOR LOW-PRESSURE AIR TESTING OF INSTALLED, NON-PRESSURE, THERMOPLASTIC SEWER PIPE

September, 2000 with revisions 7/18/08

03.01 Description
03-02 Material/Safety
03-03 Testing for Leaks
03-04 Correcting/Repairing
03-05 Basis of Acceptance
03-06 Reference Material

03.01 DESCRIPTION. This item shall consist of furnishing all labor, material and equipment to complete this test for approval by the City.

The cost for all work related to this item shall be considered incidental to the cost of the new sewer. No separate payment will be made by the City.

All main lines and laterals shall be tested for air leaks and their associated level of acceptance.

Air testing of new main line and laterals may be done at any time during the installation of the new sewers, following the initial bedding, backfilling and securing are completed.

However, in the event deflection testing requires a repair or replacement of new sewer, the Contractor shall be obligated to re-air test the repaired section of the sewer.

03.02 EQUIPMENT/SAFETY

List of Equipment

03.021 Plug Design: Either mechanical or pneumatic plugs may be used. All plugs shall be designed to resist internal testing pressures without the aid of external bracing or blocking. However, the Contractor should internally restrain or externally brace the plugs to the manhole wall as an added safety precaution throughout the test.

03.022 Singular Control Panel: To facilitate test verification by the City, all air used shall pass through a single, above ground control panel.

03.023 Equipment Controls: The above ground air control equipment shall include a shut-off valve, pressure regulating valve, pressure relief valve, in-put pressure gauge
and a continuous monitoring pressure gauge having a pressure range from 0 to at

least 10 psi. The continuous monitoring gauge shall be no less than 4 inches in diameter with minimum divisions of 0.10 psi and an accuracy of +/-0.04 psi.

03.024 Separate Hoses: Two separate hoses shall be used to: (1) connect the control panel to the sealed line for introducing low-pressure air, and (2) an separate hose connection for constant monitoring of air pressure build-up in the line. This requirement greatly diminishes any chance for over-pressurizing the line.

03.025 Pneumatic Plugs: If pneumatic plugs are utilized, a separate hose shall also be required to inflate the pneumatic plugs from the above ground control panel.

03.026 Air Source: As approved by the City.

03.03 TESTING FOR LEAKS. The Contractor shall arrange with the City's Project Representative at least 48 hours in advance to the commencement of test.

The Contractor shall assign personnel or firm familiar with testing procedures and their requirements set forth.

The Contractor and City's Project Representative shall be present at all times during the testing procedure. All testing results shall be documented and recorded, at the time of test, on the City's approved test form.

After backfilling, air tests shall be conducted between two consecutive manholes.

Each end of the section to be tested and all pipe outlets in the section shall be plugged with approved test plugs. One plug used at a manhole shall have an inlet tap or other provision for connecting an air hose from the air supply equipment. The equipment shall include valves to control the rate at which air flows into the test section and pressure gauges with minimum graduations of 0.1 psi and an accuracy of +/- 0.04 psi to monitor the air pressure within the test section.

Air pressure shall be applied slowly to the test section until the pressure reaches 4.0 psi, plus an adjustment of 0.433 psi for each foot of ground water above the crown of the pipe being tested. Internal air pressure, including adjustment for ground water, should never exceed 5.0 psi. When the pressure reaches 4.0 psi, plus adjustment for ground water, the air supply shall be throttled so that the internal pressure is maintained between 4.0 and 3.5 psi for at least two minutes to permit temperature stabilization. When the pressure has stabilized and is at or above 3.5 psi, the air supply shall be disconnected and a stop watch started and allowed to run until the pressure has dropped 1.0 psi

The permissible time allocated for the 1.0 psi pressure drop shall be calculated on the basis of the diameter and length of main sewer tested and no adjustment shall be made for service connections included in the test section. The air test for a section shall be considered acceptable

if the time elapsed for the 1.0 psi pressure drop is equal to or greater than the time indicated, and shall be considered unacceptable if the elapsed time is less than that indicated in the following table:

MINIMUM HOLDING TIME IN MINUTES:SECONDS REQUIRED FOR 1.0 PSI PRESSURE DROP **								
PIPE DIAMETER	LENGTH OF MAIN LINE TESTED *							
	100'	150'	200'	250'	300'	350'	400'	450'
4"	3:46	3:46	3:46	3:46	3:46	3:46	3:42	3:46
6"	5:40	5:40	5:40	5:40	5:40	5:40	5:42	6:24
8"	7:34	7:34	7:34	7:34	7:36	8:52	10:08	11:24
10"	9:26	9:26	9:26	9:53	11:52	13:51	15:49	17:48
12"	11:20	11:20	11:24	14:15	17:05	19:56	22:47	25:38
15"	14:10	14:10	17:48	22:15	26:42	31:09	35:36	40:04
18"	17:00	19:13	25:38	32:03	38:27	44:52	51:16	57:41
21"	19:50	26:10	34:54	43:37	52:21	61:00	69:48	78:31
24"	22:47	34:11	45:34	56:58	68:22	79:46	91:10	102:33
27"	28:51	43:16	57:41	72:07	86:32	100:57	115:22	129:48

* Interpolate time for intermediate lengths.

** If the test section fails and service connections were included in the test, re-compute test time to include service connections in accordance with 9.6 of ASTM F1417.

03.04 <u>CORRECTING OR REPAIRING</u>. If air testing procedure fails for any reason, based on limitation previously set forth, the Contractor shall immediately notify the City Project Representative.

Contractor shall be responsible for all corrective procedures, methods and operational techniques. Following correctional procedure, as approved by the City, the Contractor shall be obligated to retest the section of pipe, as previously tested. If repair necessitated a replacement of pipe, the City reserves the right to retest the said section, 30 days following this repair. All labor, material, and equipment necessary for correcting any new section of sewer shall be the responsibility of the Contractor.

03.05 <u>BASIS OF ACCEPTANCE</u>. In order for the City to consider a system , in part or whole, approved in this testing procedure, all air testing methods, as approved, shall be proofed from manhole structure to manhole structure.

03.06 <u>REFERENCE MATERIAL</u>. The City may reference UNI-BELL PVC PIPE ASSOCIATION, UNI-B-6-90 for supplemental information.

SPECIAL PROVISIONS

(74) These Special Provisions elaborate upon, clarify and amend some of the Specifications and clauses of the Contract documents; they are a part of the Contract documents and change and amend those found elsewhere only in the manner and to the extent stated.

Federal Government Participation:

An agency of the Government may be participating financially in this project. Attention is called to the various requirements of the Federal Government in connection with this contract, all of which are contained herein, and especially to those pertaining to Labor Standards and non-discrimination in employment.

Equal employment opportunity

The Contractor will comply with all provisions of Executive Order Number 11246 of September 24, 1965, and of rules, regulations, and relevant orders of the Secretary of Labor.

E.E.O. Requirements:

All bidders will be required to comply with the City Contract Compliance Program regarding equal employment opportunity. E.E.O. Booklet and Compliance Forms will be supplied to you by the Office of Neighborhood Development of the City of Canton, the completion of which is one of the contract requirements. This form must be satisfactorily completed and reviewed, and your company must be in compliance prior to the awarding of contracts. The Board of Control will not consider any awarding of contracts until the company is fully in compliance with the requirements of Section 507.03 (b) of the Canton City Code.

Chapter 507
Equal employment opportunity in public contracts

507.01 Definitions.
507.02 Administration of program.
507.03 Equal employment opportunity clause.
507.04 Contract compliance requirements.
507.05 Pre-award conference.
507.06 Project site reports.
507.07 Canton Hometown Plan.
507.08 Construction contracts involving the Canton Hometown Plan.
507.09 Exemptions for contracts not involving Canton Hometown Plan.
507.10 Intergovernmental cooperation.
507.11 Severability clause.

CROSS REFERENCES

Unlawful discriminatory practices - see Ohio R. C. 4112.02
Contracts - see ADM. Ch. 105
Unlawful interest in public contract - see GEN. OFF. 525.10

507.01 Definitions.

As used in this chapter, certain terms are defined as follows:

(a) "Discriminate" and "discrimination" means to distinguish, differentiate, separate or segregate solely on the basis of race, religion, color, sex or national origin.

(b) "Contractor" means any person, partnership, corporation, association or joint venture, and includes each and every subcontractor on such a contract and every supplier of equipment or supplies.

(c) "Subcontractor" means any person, partnership, corporation, association or joint venture which supplies any of the work, labor, services, supplies, equipment, materials or any combination of the foregoing under a contract with the contractor on a public contract.

(d) "Public Contract" means any contract awarded by the City whereby the City is committed to expend or does expend its funds in return for work, labor, services, supplies, equipment, materials or any combination of the foregoing, or any lease, lease by way of concession, concession agreement, permit or permit agreement whereby the City leaves, grants or demises property of the City or otherwise grants a right or privilege to occupy or use property of the City.

(e) "Bidder" means any person, partnership, corporation, association or joint venture seeking to be awarded a public contract.

(f) "Construction contract" means any public contract for the construction, rehabilitation, alteration, conversion, extension or repair of buildings, streets or other improvements to real property. (Ord. 179-74. Passed 6-17-74.)

507.02 Administration of program.

The Executive Secretary of the City Fair Employment Practices Commission, hereinafter referred to as the Executive Secretary, with the assistance of the Director of Public Safety, shall administer and enforce the provisions of this chapter and shall adjust, promulgate and enforce rules and regulations relating to any matter or thing pertaining to the administration and enforcement of the provisions of this chapter. (Ord. 179-74. Passed 6-17-74.)

507.03 Equal employment opportunity clause.

(a) Except as provided in Sections 507.07 and 507.08, all public contracts hereinafter entered by the City in excess of one thousand five hundred dollars ($1,500) shall incorporate an equal employment opportunity clause which shall read as follows:

(b) During the performance of this contract, the Contractor agrees as follows:

(1) The Contractor shall not discriminate against any employee or applicant for employment because of race, religion, color, sex or national origin. The Contractor shall take affirmative action to insure that applicants are employed and that employees are treated during employment without regard to race, religion, color, sex or national origin. As used herein, the word "treated" shall mean and include without limitation the following: recruited, whether by advertising or other means; compensation, whether in the form of rates of pay or other forms of compensation; selected for training, including apprenticeship; promoted; demoted; upgraded; downgraded; transferred; laid off; and terminated. The Contractor agrees to and shall post in conspicuous places available to employees and applicants for employment notices to be provided by the contracting officers setting forth the provisions of this nondiscrimination clause.

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

(3) The Contractor shall send to each labor union or representative of workers, with which he has a collective bargaining agreement or other contract or understanding, a notice advising the labor union or workers' representative of the Contractor's commitments under the equal opportunity clause of the City; and he shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(4) The Contractor shall submit in writing to the City his affirmative action plan, and each subcontractor and supplier of equipment or supplies shall submit to the general contractor his affirmative action plan. The responsibility for securing these affirmative action plans falls upon the general contractor and shall be on file at the office of the general contractor. The Contractor shall furnish all information and reports required by the City or its representative pursuant to this chapter, and shall permit access to his books, records, and accounts by the contracting agency and by the Executive Secretary for purposes of investigation to ascertain compliance with the program.

(5) The Contractor shall take such action with respect to any subcontractor as the City may direct as means of enforcing the provisions of this equal opportunity clause, including penalties and sanctions for noncompliance; provided, however, that in the event the Contractor becomes involved in or is threatened with litigation as the result of such direction by the City, the City will enter into such litigation as is necessary to protect the interests of the City and to effectuate the City's equal opportunity program and, in the case of contracts receiving Federal assistance, the Contractor or the City may request the United States to enter into such litigation to protect the interests of the United States.

(6) The Contractor shall file and shall cause his subcontractors, if any, to file compliance reports with the City in the form and to the extent prescribed by the City or its representative Compliance reports filed at such times as directed shall contain information as to the employment practices, policies, programs and statistics of the Contractor and his subcontractors.

(7) The Contractor shall include the provisions of this equal employment opportunity clause in every subcontract or purchase order, so that such provisions will be binding upon each subcontractor or vendor.

(8) Refusal by the Contractor or subcontractor to comply with any portion of this program as herein stated and described will subject the offending party to any or all of the following penalties:

A. Withholding of all future payments under the involved public contract to the Contractor in violation, until it is determined that the Contractor or subcontractor is in compliance with the

provisions of this contract.

B. Refusal of all future bids for any public contract with the City or any of its departments or divisions, until such time as the Contractor or subcontractor demonstrates that he has established and shall carry out the policies of the program as herein outlined.

C. Cancellation of the public contract and declaration of forfeiture of the performance bond.

D. In cases in which there is substantial or material violation or the threat of substantial or material violation of the compliance procedure or as may be provided by contract, appropriate proceedings may be brought to enforce these provisions, including the enjoining within applicable laws of contractors, subcontractors or other organizations, individuals or groups who prevent, directly or indirectly, or seek to prevent, directly or indirectly, compliance with the policy as herein outlined. (Ord. 179-74. Passed 6-17-74.)

507.04 Contract compliance requirements.

(a) All notices to prospective bidders published on behalf of the City shall include, as a part of the contract specifications, the condition that all bidders will be required to comply with the City Contract Compliance Program regarding equal employment opportunity. All reports required herein shall be submitted in duplicate to the department, division or other agency letting the contract.

(b) Each bidder shall file, as part of the bid documents, contract employment reports with the City contracting agency or as may be directed by the City or its representative. Such contract employment reports shall include such information as to the employment practices, policies, programs and statistics of the Contractor and shall be in such form as the City may prescribe. (Ord. 179-74. Passed 6-17-74.)

507.05 Pre-award conference.

Following receipt and review of the employment information submitted by the bidders and prior to the award of a contract, the apparent successful bidder and his known major subcontractors shall be required to attend a pre-award conference if called by the Executive Secretary, at which time such bidder and major subcontractors shall submit affirmative action programs to promote equal opportunity in employment. The Executive Secretary shall determine whether or not the apparent successful bidder has complied with this chapter and shall submit his determination and recommendation thereon to the Mayor, the director of the department or division involved and the Board of Control. In the event that a contractor did not comply under the terms of this chapter, he shall be afforded a hearing before the Mayor, the City Solicitor and the President of Council within ten days from the date that such contractor is notified of his noncompliance. (Ord. 179-74. Passed 6-17-74.)

507.06 Project site reports.

Subject to Sections 507.07 and 507.08, where a construction contract exceeds ten thousand dollars ($10,000), a project site report shall be completed and submitted by the Contractor and any subcontractor not more than ninety days from the beginning of work on the site. Such project site report shall include such information as to the employment practices and statistics of the Contractor and each subcontractor and shall be in such form as the Executive Secretary may prescribe. Where

the term of the contract exceeds ninety days, such project site report shall be submitted once every ninety days or more frequently if the Executive Secretary determines that such submittal is deemed necessary for continuing evaluation of the work force composition. Subcontractors shall complete and submit such project site reports to the Contractor for transmittal to the City. Post award reports shall be reviewed as one means of determining contract compliance. (Ord. 179-74. Passed 6-17-74.)

507.07 Canton Hometown Plan.

The Canton Hometown Plan which is composed of the East Ohio Building and Construction Trades Council, a coalition of employer associations consisting of the Ohio Contractors Association of East Central Ohio, other employers' groups and the Black Coalition of Canton is hereby adopted by reference and made a part hereof as though fully rewritten herein. (Ord. 179-74. Passed 6-17-74.)

507.08 Construction contracts involving the Canton Hometown Plan.

All construction contracts hereinafter entered by the City in excess of one thousand five hundred dollars ($1,500) which involve contractors who are signatories and in compliance of the Canton Hometown Plan shall not be governed by the equal employment opportunity clause herein, but shall comply with the requirements and terms of the Canton Hometown Plan, providing the Canton Hometown Plan:

(a) Is in full force and effect at the time of the contract;

(b) Is approved by the proper Federal and/or State authorities; and

(c) Through its administrative or executive committee on a regular basis beginning on September 1, 1974, files quarterly reports with the Executive Secretary.

In the event one or more of the conditions enumerated in subsections (a), (b) and (c) hereof are not in effect, or a contractor is not a signatory of the Canton Hometown Plan and in compliance herewith, at the time the construction contract is entered with the City as herein provided, such construction contracts shall be governed by the equal opportunity clause herein. (Ord. 179-74. Passed 6-17-74.)

507.09 Exemptions for contracts not involving Canton Hometown Plan.

All construction contract hereinafter entered by the City in excess of one thousand five hundred dollars ($1,500), which involve contractors who are not signatories of the Canton Hometown Plan and have in their employ four or less persons, shall be exempted from the application of the equal employment opportunity clause provided herein. (Ord. 179-74. Passed 6-17-74.)

507.10 Intergovernmental cooperation.

In the event specific discriminatory practices are found to exist in the administration and enforcement of this chapter, in addition to the sanctions that may be imposed as provided by the terms of the contract, the City may forward all pertinent information to the appropriate Federal and State agencies. (Ord. 179-74. Passed 6-17-74.)

507.11 Severability clause.

Sections 507.01 through 507.10, inclusive, and each part of such sections are hereby declared to be independent sections and parts of sections; and notwithstanding any other evidence of legislative intent, it is hereby declared to be the controlling legislative intent that if any provisions of such sections or the application thereof to any person or circumstance is held invalid, the remaining sections or parts of sections and the application of such provision to any person or circumstances, other than those as to which it is held invalid, shall not be affected thereby. It is hereby declared that this chapter would have been passed independently of such sections, or parts of a section, so held to be invalid. (Ord. 179-74. Passed 6-17-74.)

NOTICE OF FACTORS TO BE CONSIDERED IN DETERMINING THE LOWEST AND BEST BID FOR THE CONSTRUCTION OF PUBLIC IMPROVEMENTS AND QUESTIONNAIRE IN ACCORDANCE WITH CANTON ORDINANCE 86/2009, CHAPTER 105.01

NOTICE

All bidders shall hereby take notice of the factors to be considered by the Board of Control in determining whether a bid is not only the lowest bid, but the best bid. Said factors are contained in Canton Ordinance 86/2009, Chapter 105.01, a copy of which is included in these specifications.

QUESTIONNAIRE

When completing Bid Form #12, please submit your answers, separately, on your company letterhead and attach to Bid Form #12.

In accordance with Canton Ordinance 86/2009, Chapter 105.01, Section (c), each bidder must complete the following questionnaire. This questionnaire is to be completed in a truthful and responsible manner by the bidder. The City reserves the right to consider the bidder in default for any false or misleading information supplied per this questionnaire. If the bid is made by a corporation, then this questionnaire is to be completed by its properly authorized agent.

1. Please describe the work, supplies and materials covered by the bidder's bid.

2. Please state the identification of all work to be subcontracted. **All subcontractors are also subject to the approval of the Board of Control based on the criteria contained in this section.**

3. Please provide the descriptions of the bidder's experience with projects of comparative size, complexity and cost within recent years, demonstrating the bidder's ability and capacity to perform a substantial portion of the project with its own forces.

4. Please provide documentation from previous, similar projects regarding timeliness of performance, quality of work, extension requests, fines and penalties imposed and payments thereof, liens field, explanations of the same.

5. Please state the number of years the bidder has been actively engaged as a contractor in the construction industry.

6. Please provide your recent experience record in the construction industry, including the original contract price for each construction job undertaken by the bidder, the amount of any change orders or cost overruns on each job, the reasons for the change orders or cost overruns, and the bidder's record for complying with and meeting completion deadlines on construction projects.

7. Please identify any project(s) within the previous five years that the bidder was determined by a public entity not to be a responsible bidder, the reasons given by the public entity, together with an explanation thereof.

8. Please identify your financial responsibility to assure that the bidder processes adequate resources and availability of credit, the means and ability to procure insurance and acceptable performance bonds required for the project and whether any claims have been made against performance bonds secured by the bidder on other construction projects.

9. Please describe any suspension or revocations of any professional license of any director, officer, owner, or managerial employees of the bidder, to the extent that any work to be performed is within the field of such licensed professional.

10. Please describe any and all OSHA violations within the previous three years, as well as all notices of OSHA citations filed against the bidder in the same three year period, together with an explanation of remediation or other steps taken regarding such violations and notices of violation.

11. Please describe any and all violations within the previous five years pertaining to unlawful intimidation or discrimination against any employee by reason race, creed, color, disability, gender or national origin and/or violations of an employee's civil or labor rights or equal employment opportunities.

12. Please describe any litigation (including copies of pleadings) in which the bidder has been named as a defendant or third party defendant in an action involving a claim for personal injury or wrongful death arising from performance of work related to any project in which it has been engages within the previous five years.

13. Please describe any allegations of violations of the prevailing wage law and any other state or federal labor law, including, but not limited to, child labor violations, failure to pay wages, or unemployment insurance tax delinquencies or unfair practices within the past five years.

14. Please describe any violations of the worker compensation law.

15. Please describe any criminal convictions or criminal indictments, involving the bidder, its officers, directors, owners, and/or managers within the past five years.

16. Please describe any violation within the past five years or pending charges concerning federal, state, or municipal environmental and/or health laws, codes, rules and/or regulations.

17. Please provide documentation that the bidder provides health insurance and pension benefits to its employees.

18. Please state the experience and the continuity of the bidder's work force.

19. Please submit the identity of the bidder's permanent work force that will be employed on the public contract, to include the number of employees (or contract labor) to be assigned to the contract, their city and state of residence, and their job descriptions or trade specialties.

20. Please provide the identity of any temporary work force that will be employed on the public contract, to include the number of employees (or contract labor) to be assigned to the contract, their city and state of residence, and their job descriptions or trade specialties.

21. Please state whether the bidder's work force is drawn mainly from local employees. The number of local employees, as defined in paragraph (a)(3) of Ordinance 86/2009, and their job descriptions or trade specialties that the bidder will employ on the public contract.

22. If the bidder claims that non-local employees (or non-local contract labor) are to be assigned to the public contract instead of local employees, please state in detail the reasons therefore.

23. If the bidder claims that local employees are not intended to be used by the bidder on the public contract because they are not available, qualified or trainable within a reasonable period of time, please state in detail the reasons therefore.

24. State whether the bidder participates in a bona fide apprenticeship program that is approved by the Ohio State Apprenticeship Council and the United States Department of Labor.

25. State whether the bidder has adopted and implemented a comprehensive drug and alcohol testing program for its employees.

26. State whether the bidder's employees are OSHA-10 and/or OSHA-30 certified.

PERFORMANCE BOND AFFIDAVIT

Unless Bidder submits, with its bid, a Bid and Contract Bond per ORC. 153.571, Canton may request that the Bidder obtain, from its insurance representative, a performance bond affidavit that contains the representations noted below. The affidavit shall be made on the insurance agency's letterhead, reference this project by name and state at least the following:

(1) The representative certifies that, should the contract be awarded to the contractor on whose behalf the certificate is being provided, the performance bond specified will be provided.

(2) The name and A.M. Best Company ratings of companies which are expected to provide the required performance bond.

THE PERFORMANCE BOND AFFIDAVIT SHALL BE NOTARIZED.

AFFIDAVIT

Now comes _____, the

duly authorized representative of _____,
(name of company)

a bidder on City Project _____
(name of project)

and hereby desposes and states under oath that the _____
(name of bidder's

_____ shall employ all local labor for all work to be
company)

performed on City Project _____

In the event said bidder is awarded the contract for said Project.

_____
Authorized Signature of Company

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

20_____.

_____
Name of Notary Public

My Commission Expires:

_____

SUPPLEMENTARY GENERAL CONDITIONS

GENERAL CONDITIONS/CANTON INCOME TAX

Each bidder, by the act of submitting its bid agrees to withhold all City Income Taxes due or payable under Chapter 181 of the Codified Ordinances of the City of Canton for wages, salaries, fees and commissions paid to its employees and further agrees that any of its subcontractors shall be required to agree to withhold any such City Income Taxes due for service performed under this contract.

Furthermore, any person, firm, or agency that has a contract, or agreement with the City shall be subject to the City Income Tax whether the work being done is in the City or out of the City. In addition to the tax withheld for employees, the net profit on the contract shall be subject to the City Income Tax.

Questions regarding this matter shall be directed to the City of Canton, Income Tax Department, (330) 430-7900.

GENERAL CONDITIONS

Bidders shall take notice that they are to comply with the Codified Ordinances of the City of Canton, including but not limited, to the following:

1. Section 105.01 - **SEE ORDINANCE 86/2009.**
2. Section 105.03 - U.S. steel usage required; exceptions. Additionally, the U.S. Steel requirements shall also pertain to iron products.
3. Section 105.05 - Materials to be purchased locally.
4. Section 105.12 - Local preference.

Copies of the text of the above-noted Ordinance Sections are attached to these bid documents for bidders' review and compliance.

JM/jc
4/23/09
1221
By: Joe Carbenia, Ward 9 Councilmember (2) 1st Reading 4/27/09
Referred to C'ED & JUD

(6) 2nd Reading 5/11/09
(13) 3rd Reading 5/18/09
PASSED: 5/18/09

Recorded in Volume _____, Page _____ Recvd 5/11/09 6:42 pm Pod

**AMENDED

ORDINANCE NO. 86/2009

AN ORDINANCE AMENDING CHAPTER 105, CONTRACTS, OF TITLE ONE - GENERAL PROVISIONS OF THE CODIFIED ORDINANCES OF THE CITY OF CANTON

WHEREAS, throughout the United States, private and public construction users have regularly utilized and required project labor agreements to establish uniform terms and conditions of employment for contractors and craft construction employees; and, project labor agreements have been shown to provide an effective mechanism for overall construction project staffing, planning and labor stability on job sites; and

WHEREAS, uniformity of terms and conditions and efficient administration of public works is especially needed given the current levels of unemployment generally, and more profoundly in the construction industry; and

WHEREAS, the City has determined that the continued growth and health of the construction industry in the city of Canton and Stark County is vital to the growth and stability of the general economy of the city of Canton; and

WHEREAS, project labor agreements are legal under federal and Ohio law, have been successfully utilized on a large number of major public improvement projects throughout the United States, and neither union nor non-union contractors and employees are precluded from competitively bidding or working under project labor agreements; and

WHEREAS, in order to provide for project labor agreements with the East Central Ohio Building and Construction Trades Council, AFL-CIO and its affiliated local unions for construction projects undertaken by the city of Canton, amendments are required to Chapter 105, Contracts, of the Codified Ordinances;

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY CANTON, STATE OF OHIO, THAT:

Section 1. Section 105.01, Procedures to Determine Lowest and Best Bi Construction of Public Improvements, of the Codified Ordinances is amended to rea follows:

105.01 CONSTRUCTION CONTRACTS.

(a) Definitions.

For purposes of this chapter, the following definitions shall apply:

(1) "Public Contract" or "Construction following:

A. Any new construction of any public improvement, the overall project cost of which is estimated to be more

MENDED $100 , 000.00 ~~$50,000.00~~ and performed by other than full-time employee the City who have completed their probationary periods i classified service. Determination of project cost shall be su to the biennial increase or decrease provided for by Ohio F 4115.034; or

B. Any construction, reconstruction, improvement, enlarge renovation, alteration, repair, painting or decorating of any improvement, which is estimated to be more than $20,(and performed by other than full-time employees of the Cit have completed their probationary periods in the cla service. Determination of project cost shall be subject biennial increase or decrease provided for by Ohio 4115.034.

(2) "Public improvement" includes all buildings, roads, streets, a sewers, ditches, sewage disposal plants, water works and al structures or works constructed by the City or by any person or who, pursuant to a contract with the City, constructs any improvement for the City. A public improvement shall be cons as one project where a review of the nature, scope and objecti well as the interrelationship of time and purpose of the p evidences the undertaking of a single public improvement pursu Ohio R.C. 4115.033 and O.A.C. 4101:9-4-17.

(3) "Local employee" means:

A. A person residing within the City of Canton or Stark Count

B. A person working for a contractor or from a pool of labor located within the City of Canton or Stark County; or

C. Due to the specialty nature of the employment to be performed, where a suitable person meeting either subsection (a)(3)A. or B. hereof is not available, a person residing or working within a location as close to Canton as is available. A "suitable person" means a person who is qualified to perform the work or trainable within a reasonable period of time.

(b) Project Labor Agreements.

(1) In connection with the public bidding and contract awarding process for every proposed public contract or construction project, the Mayor, or his designee, shall evaluate whether a project labor agreement will advance the City's procurement interest in cost, efficiency, and quality while promoting labor-management stability as well as compliance with applicable legal requirements governing safety and health, equal employment opportunity, labor and employment standards, and other related matters.

(2) If the Mayor, or his designee, determines that a project labor agreement will serve the goals set forth above, the Mayor, or his designee, shall negotiate a project labor agreement with the East Central Ohio Building and Construction Trades Council and its affiliated local unions, or said Council's successor.

(3) The bidding documents for each such construction project shall contain a written provision requiring the successful bidder to comply with and adhere to all of the provisions of any project labor agreement negotiated by the Mayor for the project.

(4) The City shall not thereafter enter into any contract with the successful bidder for the construction of any such city building unless the contract contains a provision requiring the successful bidder, and all of the bidder's contractors and subcontractors, to comply with and adhere to the provisions of the negotiated project labor agreement.

(5) If the Mayor, or his designee, with respect to any proposed construction project, determines that a project labor agreement will not serve the goals set forth in subsection (b)(1), the Mayor shall submit a written report to the Clerk of Council that shall state the reasons for concluding that a project labor agreement for the project will not substantially further the purposes of this section.

(c) Bids and Required Bidder Information.

Upon Council approval, the Director of Public Service and/or Director of Public Safety shall advertise and accept bids for a construction project in accordance with the following procedures:

(1) Contracts shall be bid as follows:

A. An aggregate bid from a general contractor; or

B. Separate bids for work and materials from multiple prime contractors.

(2) Bidders for all proposed construction projects shall be required to furnish the following information:

A. The work, supplies and materials covered by the bidder's bid.

B. Identification of all work to be subcontracted. All subcontractors are also subject to the approval of the Board of Control based on the criteria contained in this section.

C. Descriptions of bidder's experience with projects of comparative size, complexity and cost within recent years, demonstrating the bidder's ability and capacity to perform a Substantial portion of the project with its own forces.

explanations of the same.

E. The number of years the bidder has been actively engaged as a contractor in the construction industry.

F. The bidder's recent experience record in the construction industry, including the original contract price for each construction job undertaken by the bidder, the amount of any change orders or cost overruns on each job, the reasons for the change orders or cost overruns, and the bidder's record for complying with and meeting completion deadlines on construction projects.

G. Identification of any projects within the previous five years that the bidder was determined by a public entity not to be a

responsible bidder, the reasons given by the public entity, together with an explanation thereof.

H. Demonstration of financial responsibility to assure that the bidder possesses adequate resources and availability of credit, the means and ability to procure insurance and acceptable performance bonds required for the project and whether any claims have been made against performance bonds secured by the bidder on other construction projects.

I. Disclosure of any suspension or revocations of any professional license of any director, officer, owner, or managerial employees of the bidder, to the extent that any work to be performed is within the field of such licensed profession.

J. Disclosure of any and all OSHA violations within the previous three years, as well as all notices of OSHA citations filed against the bidder in the same three year period, together with a description and explanation of remediation or other steps taken regarding such violations and notices of violation.

K. Disclosure of any and all violations within the previous five years pertaining to unlawful intimidation or discrimination against any employee by reason of race, creed, color, disability, gender, or national origin and/or violations of an employee's civil or labor rights or equal employment opportunities.

L. Disclosure of any litigation (including copies of pleadings) in which the bidder has been named as a defendant or third party defendant in an action involving a claim for personal injury or wrongful death arising from performance of work related to any project in which it has been engaged within the previous five years.

M. Disclosure of allegations of violations of the prevailing wage law and any other state or federal labor law, including, but not limited to, child labor violations, failure to pay wages, or unemployment insurance tax delinquencies or unfair labor practices within the past five years.

N. Disclosure of violations of the workers compensation law.

O. Disclosure of any criminal convictions or criminal indictments, involving the bidder, its officers, directors, owners, and/or managers within the past five years.

P. Disclosure of any violation within the past five years or pending charges concerning federal, state, or municipal environmental and/or health laws, codes, rules and/or regulations.

Q. Documentation that the bidder provides health insurance and pension benefits to its employees.

R. The experience and the continuity of the bidder's work force.

S. The identity of the bidder's permanent work force that will be employed on the public contract, to include the number of employees (or contract labor) to be assigned to the contract, their city and state of residence, and their job descriptions or trade specialities.

T. The identity of any temporary work force that will be employed on the public contract, to include the number of employees (or contract labor) to be assigned to the contract, their city and state of residence, and their job descriptions or trade specialities.

U. Whether the bidder's work force is drawn mainly from local employees. The number of local employees, as defined in paragraph (a)(3), and their job descriptions or trade specialties that the bidder will employ on the public contract.

V. When a bidder claims that non-local employees (or non-local contract labor) are to be assigned to the public contract instead of local employees, the reasons therefor.

W. When a bidder claims that local employees are not intended to be used by the bidder on the public contract because they are not available, qualified or trainable within a reasonable period of time, the reasons therefor.

X. Whether the bidder participates in a bona fide apprenticeship program that is approved by the Ohio State Apprenticeship Council and the United States Department of Labor.

Y. Whether the bidder has adopted and implemented a comprehensive drug and alcohol testing program for its employees.

Z. Whether the bidder's employees are OSHA-1 0 and/or OSHA-30 certified.

(d) Each factor enumerated in subsection (c)(2), standing alone, shall not be considered as determinative of the lowest and best bid. The City shall have complete discretion in assessing the level of importance to be placed upon anyone or more of the factors enumerated and in determining the lowest and best bid and in awarding the construction contract.

(e) All bid invitations and specifications for construction, repair and renovation work shall advise prospective bidders of all of the factors that will be taken into consideration by the Board of Control in determining whether a bid is not only the lowest but the "best" bid. Bid specifications shall contain provisions conforming to this chapter, including a form or forms to enable a bidder to provide evidence to the Board of Control of the bidder's compliance with, adherence to, or satisfaction of, the various factors that shall be considered by the Board in determining the lowest and best bid.

Section 2. Section 105.08, Capital Improvement Projects, of the Codified Ordinances is repealed.

Section 3. Paragraph (a) to Section 105.12, Local Bidder Preference, of the Codified Ordinances is amended to read as follows:

(a) The Board of Control, in determining the lowest and best bidder in the award of contracts, is authorized to award contracts to local bidders as hereinafter defined, whose bid is not more than ten percent (10%) higher, subject to a maximum amount of one hundred thousand dollars ($100,000.00), than the lowest dollar bid submitted by non-local bidders, provided that the project bid does not exceed ten percent (10%) of the engineer's estimate. The Board of Control's decision in making such an award shall be final.

Section 4. All ordinances or parts of ordinances in conflict with this ordinance are repealed.

Section 5. This ordinance shall take effect from and after the earliest period allowed

PASSED May 16, 2009

PASSED May 16, 2009

President of Council Pro Tem

ATTEST. May 16, 2009

Clerk of Council

APPROVED:

Mayor Pro Tem

TMB/car
5/6/97
2155

By: Thomas M. Bernabei, Law Director
RDC by JF - 5/9/97

(1) 1st Reading MAY 1 2 1997

Referred to Finance

(16) 2nd Reading JUN 0 2 1997

3rd Reading JUN 0 2 1997

PASSED JUN 0 2 1997

Recorded in Volume Page REC'D 5-30-97 8:00 A.M. PW

ORDINANCE NO. 112/97

AN ORDINANCE AMENDING SECTION 105.12, LOCAL PREFERENCE, AND SECTION 181.09, INVESTIGATIONS; INFORMATION CONFIDENTIAL; PENALTY FOR DIVULGENCE; RECORDS TO BE KEPT FOR FIVE YEARS, OF THE CODIFIED ORDINANCE OF THE CITY OF CANTON

BE IT ORDAINED BY THE COUNCIL OF THE CITY OF CANTON, STATE OF OHIO, THAT:

Section 1. Section 105.12, Local Preference, of the Codified Ordinances of the City of Canton, be and the same is hereby amended to read as follows:

105.12 LOCAL BIDDER PREFERENCE.

(a) The Board of Control, in determining the lowest and best bidder in the award of contracts, is authorized to award contracts to local bidders as hereinafter defined, whose bid is not more than ten percent (10%) higher, subject to a maximum amount of ~~$10,000.00~~, than the low dollar bid submitted by non-local bidders. The Board of Control's decision in making such an award shall be final.

*Per Ord. 86/2009, the amount of $10,000.00 has been increased to $100,000.00.

(b) For purposes of this section, "local bidder" means an individual or business entity which at the time of the award of the contract: (i) is a resident of the City and/or has its principal place of business in the City; and (ii) which has filed a City of Canton "Resident" Income Tax Return for the past two (2) tax years.

(c) All contract specifications and/or bid documents that are distributed by Canton for the purpose of soliciting bids for goods and/or services shall contain the following notice:

> Prospective bidders will take notice that the City of Canton, in determining the lowest and best bidder in the award of this contract, may award a local bidder preference to any qualified bidder pursuant to Section 105.12 of the Codified Ordinances of the City of Canton. The determination of whether a bidder qualifies for the local preference shall be made by Board of Control. The Board's decision shall be final. A copy of City Code Section 105.12 is attached.

RECEIVED JUN 5 1997 CITY LAW DEPT.

(d) This section shall be applicable to all contracts for the purchase of material, equipment, supplies or services, which are purchased, leased or constructed at a cost in excess of ~~$10,000.00~~ $100,000.00 and which require bidding pursuant to Ohio R.C. 735.05 through 735.09 and Ohio R.C. 737.03.

105.03 U.S. STEEL USAGE REQUIRED; EXCEPTION.

All City contracts shall stipulate or provide that all steel necessary in the construction of any work performed under such contracts shall be steel that is produced in the United States unless a specific product which is required is not produced by manufacturers in the United States in which event this prohibition does not apply. This section shall apply to only contracts awarded by the Board of Control of the City. (Ord. 224-77. Passed 6-27-77.)

105.04 EMERGENCY CONTRACTUAL PROCEDURES.

(a) Upon the occurrence of any emergency situation within City government that affects the health, safety and welfare of this City and which requires the immediate attention on the part of the executive members of City government, the appropriate City official, i. e. Mayor, Service Director or Safety Director, a written report shall be submitted to the Clerk of Council with a copy of this report to the Chairman of the Finance Committee and, if applicable, a copy to the chairman of any other committee of Council that normally will be charged with the responsibility of the subject matter of the emergency.

(b) Such written report and copy or copies shall be submitted to Council for the Council agenda for the next succeeding Council meeting, as long as the emergency did not exist seventy-two hours before the preceding meeting.

(c) The written report shall be placed on the Council agenda for the next succeeding Council meeting.

(d) Written reports shall to the extent possible:

(1) Describe the nature of the emergency;

(2) Provide the various alternatives being provided to correct the problem;

(3) Name the appropriate department head charged with the responsibility of coping with the emergency;

(4) Name contractors or persons who are being considered to undertake the responsibility of dealing with such an emergency;

(5) Name the contractors or persons who are performing the work necessary to undertake the responsibility of dealing with the emergency;

(6) Provide the estimate cost for such an undertaking if this information is available; and

(7) Provide effort and time for the work to be performed by such contractors or persons if available, and other relevant information that is necessary to give Council the full picture and the process being used to determine the resolution of such emergency.

(e) Strict compliance of the foregoing on the part of those who may have to proceed with the remedy or repair of an emergency situation without prior legislative authority will be a substantial consideration on the part of Council in subsequently enacting the legislation to compensate the person who has undertaken such emergency work.

(f) Upon receipt of such written notice, the chairman of the Council committee(s) shall make reasonable efforts to come in contact with the City department director who has assumed the responsibility of coping with such emergency situation.

(g) The Board of Control is directed to notify and invite all contractors to enter their names on a list with the City if they wish to participate in handling work or supplying material

for the City on an emergency basis. A copy of the contractors who will participate is to be registered with the Clerk of Council. (Res. 76-76. Passed 3-1-76.)

105.05 MATERIALS TO BE PURCHASED LOCALLY.

In all future contracts for the construction of buildings, structures, or other improvements under the Capital Improvement Budget, the following clause shall be printed or typewritten on each contract:

> It is the desire of the City of Canton that all materials used in the construction covered by this contract shall be purchased in the Canton area except such materials which are unavailable in the Canton area.

(Res. 49-77. Passed 2-7-77.)

105.12 LOCAL BIDDER PREFERENCE.

(a) The Board of Control, in determining the lowest and best bidder in the award of contracts, is authorized to award contracts to local bidders as hereinafter defined, whose bid is not more than ten percent (10%) higher, subject to a maximum amount of one hundred thousand dollars ($100,000.00), than the lowest dollar bid submitted by non-local bidders, provided that the project bid does not exceed ten percent (10%) of the engineer's estimate. The Board of Control's decision in making such an award shall be final.

(Ord. 86-2009. Passed 5-18-09.)

(b) For purposes of this section, "local bidder" means an individual or business entity which at the time of the award of the contract:

(1) Is a resident of the City and/or has its principal place of business in the City; and

(2) Which has filed a City of Canton "Resident" Income Tax Return for the past two tax years.

(c) All contract specifications and/or bid documents that are distributed by Canton for the purpose of soliciting bids for goods and/or services shall contain the following notice:

> Prospective bidders will take notice that the City of Canton, in determining the lowest and best bidder in the award of this contract, may award a local bidder preference to any qualified bidder pursuant to Section 105.12 of the Codified Ordinances of the City of Canton. The determination of whether a bidder qualifies for the local preference shall be made by Board of Control. The Board's decision shall be final. A copy of City Code Section 105.12 is attached.

(Ord. 112-97. Passed 6-2-97.)

(d) This section shall be applicable to all contracts for the purchase of material, equipment, supplies or services, which are purchased, leased or constructed at a cost in excess of twenty thousand dollars ($20,000) and which require bidding pursuant to Ohio R.C. 735.05 through 735.09 and Ohio R.C. 737.03.

(Ord. 112-97. Passed 6-2-97; Ord. 52-99. Passed 3-29-99; Ord. 240-2005. Passed 11-21-05.)

105.13 STATE COOPERATIVE PURCHASING WITH ODOT.

(a) The City hereby requests authority pursuant to Ohio R.C. 5513.01 to participate in State contracts which the Ohio Department of Transportation has entered into for the purchase of supplies, services, equipment and certain materials without competitive bidding.

(b) The City hereby agrees to all contract terms and conditions which the Ohio Department of Transportation may prescribe. Such terms and conditions may include a reasonable fee to cover the administrative costs which the Ohio Department of Transportation may incur as a result of the City's participation in contracts.

(c) The Director of Public Service and the Director of Public Safety are hereby authorized to act as the City's authorized agents for the purpose of executing contracts pursuant to the Cooperative Purchasing Act and the City agrees to directly pay vendors under such State contracts in which it participates for items received pursuant to contracts under this program. (Ord. 175-93. Passed 9-13-93.)

(d) The Director of Public Service and the Director of Public Safety may purchase supplies or services from another party, including another political subdivision, instead of through participation in contracts described in subsection (c) hereof if the Director can purchase those supplies or services from the other party upon equivalent terms, conditions and specifications but at a lower price than the Director can through the Cooperative Purchasing Act. Purchases that a Director makes under this section are exempt from any competitive selection procedures otherwise required by law. A Director who makes any purchase under this section shall maintain sufficient information regarding the purchase to verify that the City satisfied the conditions of making a purchase under this section.
(Ord. 52-99. Passed 3-29-99.)

105.14 CHANGE ORDERS TO CONTRACTS.

(a) Change orders are amendments to contracts to provide for alterations or modifications of the scope and/or cost of the original contract. A proposed amendment to a contract which is outside the general scope of the original contract does not constitute a change order, but is rather a proposal for a new and separate contract which requires independent contractual authority and bidding, if applicable.

(b) The Director of Public Service and the Director of Public Safety are hereby authorized, without approval of Council, to approve and enter into change orders which do not in the aggregate exceed:

(1) Ten percent (10%) of the total authorized original contract price; or

(2) $100,000.00, whichever is less.

This authority is subject to the availability of funding. Change orders shall additionally require approval of the Board of Control.

(c) Change orders in excess of the aggregate amounts set forth in subsection (b) hereof shall require approval of Council. The above stated limitations may be amended by Council in any legislation providing for any contract or in any subsequent amending ordinance. (Ord. 31- 2000. Passed 2-14-00.)

ADDITIONAL REQUIREMENTS AND/OR CONDITIONS

A. Notwithstanding any provisions to contrary, Ohio Law shall govern this Agreement.

B. Supplier agrees that Canton's specifications and bid documents shall incorporate and made part of any subsequent contract entered by the parties. Further, the terms, conditions and provisions found in Canton's specifications and bid documents shall supersede and control any subsequent contract provisions to the contrary.

C. Once both parties have fully executed the contract, said contract shall by binding upon the parties' heirs, successors and assigns.

D. Supplier shall not assign or transfer any interest under this agreement without the express written consent of Canton.

E. Supplier agrees to indemnify and hold harmless the City of Canton, Ohio, its employees and agents from and against all demands, claims, causes of action, or judgments or omissions by Supplier, its agents, employees or subcontractors. Nothing herein shall be constructed to hold Supplier liable for Canton's negligence.

F. Supplier's liability to the City of Canton for default shall not be limited and the City if Canton shall be entitled to all damages permitted under Ohio law upon Supplier's breach, default or non-performance under this Agreement.

G. A waiver of a breach of any of the terms or conditions of the contract will not be construed as a waiver of any subsequent breach. Any consent to delay in the performance of contractor of any obligation shall be applicable only to the particular transaction to which it relates, and it shall not be applicable to any other obligation or transaction. Delay in the enforcement of any remedy in the event if a breach of any term or condition of the contract or in the exercise by either party of any right under the contract shall not be construed as a waiver.

H. When, during the course of construction, it appears to the contractor that any work does not conform to the provisions of the contract documents, it will make necessary corrections so that such work will conform. Additionally, the Contractor will correct any defects caused by faulty materials, equipment or workmanship in work supervised by the Contractor or by a subcontractor. This shall apply to the Contractor or any subcontractor appearing within one year from the date of issuance of a certificate of substantial completion or within such longer periods as prescribed by law or by applicable special guarantees or warranties in the contract documents.

I. The owner reserves the right to order work changes in the nature of additions, deletions, or modifications, without invalidating the contract, and agrees to make corresponding adjustments in the contract price and time of termination if necessary. The Owner will authorize all changes by a written change order signed by the owner, or the architect of other designee of the owner. The change order will be include conforming changes in the contract and termination time.

J. Work changed, and the contract price and termination time modified only as set out in the written change order. Any adjustment in the contract sum resulting in a credit or a charge to the owner will determined by mutual agreement of the parties before starting any work involved in the change work.

NOTICE OF WITHDRAWAL

PLEASE NOTE THAT BY SUBMITTING YOUR BID(S) TO THE CITY OF CANTON, THE CITY ASSUMES THAT SAID BID(S) HAS/HAVE BEEN REVIEWED BY AN AUTHORIZED REPRESENTATIVE OF YOUR COMPANY TO ASSURE THAT THE BID(S) IS/ARE CORRECT AND/OR ACCURATE.

ANY BIDDER MAY WITHDRAW THE BID(S), BY WRITTEN REQUEST, AT ANY TIME PRIOR TO THE HOUR SET FOR THE BID OPENING.

IF THERE IS NO WITHDRAWAL OF THE BID(S), IN ACCORDANCE WITH THE ABOVE PROCEDURE, THE CITY RESERVES THE RIGHT TO ENFORCE SAID BID PRICE(S) AND/OR CONTRACT.

BIDDER INFORMATION

1. The Bidder shall provide the following information as part of its bid.

a. Name of Bidder _____

b. Business Address _____

_____
City State Zip

c. Business Telephone Number (____) _____

_____

d. Person, address, and telephone to whom official notices are to be sent _____

_____

_____

_____

_____

e. Person, address and telephone for further information regarding this proposal _____

_____

_____

_____

f. State(s) of incorporation (w/dates of incorporation) _____

_____

g. Principal place of business _____

h. Working days necessary to days complete project _____days

i. Federal I.D. Number # _____

j. Amount of Certified Check, Cashier's Check, Bid Bond $_____

2. Form of Business Organization.

   _____ Corporation

   _____ Partnership

   _____ Other _____

3. The bidder shall provide the names and addresses of all persons interested as principals (officers, partners, and associates) in this proposal. Write first name in full, and give titles for offices.

   _____ _____

   _____ _____

   _____ _____

   _____ _____

   All of the above, including the signatory to this bid, are citizens of the United States, except the following. (Provide names and addresses of those not a citizen of the United States.)

   _____ _____

   _____ _____

   _____ _____

   _____ _____

4. Name and address of other person, firms or companies interested in this contract.

   _____ _____

   _____ _____

   _____ _____

   _____ _____

The undersigned certifies that the bidder has the facilities, ability and financial resources available for the fulfillment of the contract if such be awarded to said bidder.

Upon request, the bidder will be expected to amplify the foregoing statements as necessary to satisfy the OWNER concerning his ability to successfully perform the work in a satisfactory manner.

Signed this _____ day of _____, 20 _____.

_____
Contractor

By _____ ___
(Signature of individual, partner or officer signing the proposal.)

Please have this page Notarized

ARTICLES OF INCORPORATION

UNLESS THE BIDDER SUBMITS, WITH ITS BID, THE "ARTICLES OF INCORPOARTION" SHOWING EXACTLY WHAT NAME YOU ARE INCORPORATED UNDER WITH THE STATE OF OHIO, CANTON MEY REQUEST THE BIDDER PROVIDE THIS INFORMATION.

THE ARTICLES OF INCORPORATION ARE THE DOCUMENTS FILED WITH THE STATE (OHIO OR OTHERWISE) CREATING THE CORPORATE ENTITY.

Bid Form 8

LISTING OF SUBCONTRACTORS

The Bidder shall set forth the name, location of principal place of business, proposed amount of subcontract and type of work to be performed of each subcontractor who will perform work or labor or render service, as listed, to the bidder in or about the construction of the work or improvement to be performed under the Contract for which the attached Bid is submitted, and where the portion of the work which will be performed by each subcontractor. Note that subcontractors are distinguishable from suppliers.

Subcontractor **- An individual or entity having a direct contract with CONTRACTOR or with any other Subcontractor for the performance of a part of the work at the site.**

Supplier **- A manufacturer, fabricator, supplier, distributor, material man, or vendor having a direct contract with CONTRACTOR or with any Subcontractor to furnish materials or equipment to be incorporated in the work by the CONTRACTOR or any Subcontractor.**

The Bidder understands that if he fails to specify a subcontractor for any portion of the work to be performed under the Contract, he shall be deemed to have agreed to perform such portion itself.

Bid Form 13

CERTIFICATION

I, _____
(Name of person signing affidavit) (Title)

do hereby certify that _____ does not have an
(Company or Individual Name)

outstanding unresolved finding for recovery issued by the Auditor of the State of Ohio as defined by Ohio Revised Code (ORC) Section 9.24 as of

_____.
(Current date)

_____
Signature of Officer or Agent

_____
Name (Print)

Sworn to and subscribed in my presence this _____ day of

_____, 20 _____

_____
(Notary Public)

**********FOR INSTRUCTIONAL USE ONLY**********

READ BEFORE COMPLETING YOUR DMA FORM

Forms not conforming to the specifications listed below or not submitted to the appropriate agency or office will not be processed.

- To complete this form, you will need a copy of the Terrorist Exclusion List for reference. The Terrorist Exclusion List can be found on the Ohio Homeland Security Web site at the following address:

  http://www.homelandsecurity.ohio.gov/dma/dma.asp

- Be sure you have the correct DMA form. If you are applying for a state issued license, permit, certification or registration, the "State Issued License" DMA form must be completed (HLS 0036). If you are applying for employment with a government entity, the "Public Employment" DMA form must be completed (HLS 0037). If you are obtaining a contract to conduct business with or receive funding from a government entity, the "Government Business and Funding Contracts" DMA form must be completed (HLS 0038).

- Your DMA form is to be submitted to the issuing agency or entity. "Issuing agency or entity" means the government agency or office that has requested the form from you or the government agency or office to which you are applying for a license, employment or a business contract. For example, if you are seeking a business contract with the Ohio Department of Commerce's Division of Financial Institutions, then the form needs to be submitted to the Department of Commerce's Division of Financial Institutions. Do NOT send the form to the Ohio Department of Public Safety UNLESS you are seeking a license from, or employment or business contract with one of its eight divisions listed below.

- Department of Public Safety Divisions:

  Administration
  Ohio Bureau of Motor Vehicles
  Ohio Emergency Management Agency
  Ohio Emergency Medical Services
  Ohio Homeland Security*
  Ohio Investigative Unit
  Ohio Criminal Justice Services
  Ohio State Highway Patrol

- * DO **NOT** SEND THE FORM TO OHIO HOMELAND SECURITY UNLESS OTHERWISE DIRECTED. FORMS SENT TO THE WRONG AGENCY OR ENTITY WILL NOT BE PROCESSED.

**********FOR INSTRUCTIONAL USE ONLY**********

OHIO DEPARTMENT OF PUBLIC SAFETY

OHIO DEPARTMENT OF PUBLIC SAFETY
DIVISION OF HOMELAND SECURITY
http://www.homelandsecurity.ohio.gov

GOVERNMENT BUSINESS AND FUNDING CONTRACTS

In accordance with section 2909.33 of the Ohio Revised Code

DECLARATION REGARDING MATERIAL ASSISTANCE/NONASSISTANCE TO A TERRORIST ORGANIZATION
This form serves as a declaration by an applicant for a government contract or funding of material assistance/nonassistance to an organization on the U S Department of State Terrorist Exclusion List ("TEL"). Please see the Ohio Homeland Security Division Web site for a copy of the TEL.

Any answer of "yes" to any question, or the failure to answer "no" to any question on this declaration shall serve as a disclosure that material assistance to an organization identified on the U S Department of State Terrorist Exclusion List has been provided Failure to disclose the provision of material assistance to such an organization or knowingly making false statements regarding material assistance to such an organization is a felony of the fifth degree.

For the purposes of this declaration, "material support or resources" means currency, payment instruments, other financial securities, funds, transfer of funds, financial services, communications, lodging, training, safe houses, false documentation or identification, communications equipment, facilities, weapons, lethal substances, explosives, personnel, transportation, and other physical assets, except medicine or religious materials

COMPLETE THIS SECTION ONLY IF YOU ARE AN INDEPENDENT CONTRACTOR

LAST NAME	FIRST NAME	MI
HOME ADDRESS		
CITY / STATE	ZIP	COUNTY
HOME PHONE	WORK PHONE	

COMPLETE THIS SECTION ONLY IF YOU ARE A COMPANY, BUSINESS OR ORGANIZATION

BUSINESS/ORGANIZATION NAME	PHONE
BUSINESS ADDRESS	
CITY / STATE	ZIP / COUNTY
BUSINESS/ORGANIZATION REPRESENTATIVE NAME	TITLE

DECLARATION

In accordance with section 2909.32 (A)(2)(b) of the Ohio Revised Code
For each question, indicate either "yes," or "no" in the space provided Responses must be truthful to the best of your knowledge.

1. Are you a member of an organization on the U.S Department of State Terrorist Exclusion List? ☐ Yes ☐ No
2. Have you used any position of prominence you have with any country to persuade others to support an organization on the U.S. Department of State Terrorist Exclusion List? ☐ Yes ☐ No
3. Have you knowingly solicited funds or other things of value for an organization on the U.S. Department of State Terrorist Exclusion List? ☐ Yes ☐ No
4. Have you solicited any individual for membership in an organization on the U S. Department of State Terrorist Exclusion List? ☐ Yes ☐ No
5. Have you committed an act that you know, or reasonably should have known, affords "material support or resources" to an organization on the U.S Department of State Terrorist Exclusion List? ☐ Yes ☐ No
6. Have you hired or compensated a person you knew to be a member of an organization on the U.S. Department of State Terrorist Exclusion List, or a person you knew to be engaged in planning, assisting, or carrying out an act of terrorism? ☐ Yes ☐ No

If an applicant is prohibited from receiving a government contract or funding due to a positive indication on this form, the applicant may request the Ohio Department of Public Safety to review the prohibition. Please see the Ohio Homeland Security Web site for information on how to file a request for review

CERTIFICATION

I hereby certify that the answers I have made to all of the questions on this declaration are true to the best of my knowledge. I understand that if this declaration is not completed in its entirety, it will not be processed and I will be automatically disqualified. I understand that I am responsible for the correctness of this declaration I understand that failure to disclose the provision of material assistance to an organization identified on the U S. Department of State Terrorist Exclusion List, or knowingly making false statements regarding material assistance to such an organization is a felony of the fifth degree I understand that any answer of "yes" to any question, or the failure to answer "no" to any question on this declaration shall serve as a disclosure that material assistance to an organization identified on the U.S Department of State Terrorist Exclusion List has been provided by myself or my organization If I am signing this on behalf of a company, business or organization, I hereby acknowledge that I have the authority to make this certification on behalf of the company, business or organization referenced on page 1 of this declaration.

APPLICANT SIGNATURE	DATE
X	

HLS 0038 3/10 Page 2 of 2

OHIO DEPARTMENT OF PUBLIC SAFETY
Division of Homeland Security

Terrorist Exclusion List

As of March 2009

U.S. Department of State List of Designated Foreign Terrorist Organizations

1. Abu Nidal Organization (ANO)
2. Abu Sayyaf Group
3. Al-Aqsa Martyrs Brigade
4. Ansar al-Islam
5. Armed Islamic Group (GIA)
6. Asbat al-Ansar
7. Aum Shinrikyo
8. Basque Fatherland and Liberty (ETA)
9. Communist Party of the Philippines/New People's Army (CPP/NPA)
10. Continuity Irish Republican Army
11. Gama'a al-Islamiyya (Islamic Group)
12. HAMAS (Islamic Resistance Movement)
13. Harakat ul-Mujahidin (HUM)
14. Hizballah (Party of God)
15. Islamic Jihad Group
16. Islamic Movement of Uzbekistan (IMU)
17. Jaish-e-Mohammed (JEM) (Army of Mohammed)
18. Jemaah Islamiya organization (JI)
19. al-Jihad (Egyptian Islamic Jihad)
20. Kahane Chai (Kach)
21. Kongra-Gel (KGK, formerly Kurdistan Workers' Party, PKK, KADEK)
22. Lashkar-e Tayyiba (LT) (Army of the Righteous)
23. Lashkar i Jhangvi
24. Liberation Tigers of Tamil Eelam (LTTE)
25. Libyan Islamic Fighting Group (LIFG)
26. Moroccan Islamic Combatant Group (GICM)
27. Mujahedin-e Khalq Organization (MEK)
28. National Liberation Army (ELN)
29. Palestine Liberation Front (PLF)
30. Palestinian Islamic Jihad (PIJ)
31. Popular Front for the Liberation of Palestine (PFLF)
32. PFLP-General Command (PFLP-GC)
33. al-Qa'ida
34. Real IRA
35. Revolutionary Armed Forces of Colombia (FARC)
36. Revolutionary Nuclei (formerly ELA)
37. Revolutionary Organization 17 November
38. Revolutionary People's Liberation Party/Front (DHKP/C)
39. Salafist Group for Call and Combat (GSPC)
40. Shining Path (Sendero Luminoso, SL)
41. Tanzim Qa'idat al-Jihad fi Bilad al-Rafidayn (QJBR) (al-Qaida in Iraq) (formerly Jama'at al-Tawhid wa'al-Jihad, JTJ, al-Zarqawi Network)
42. United Self-Defense Forces of Colombia (AUC)

OHIO DEPARTMENT OF PUBLIC SAFETY

Division of Homeland Security

U.S. Department of State Terrorist Exclusion List

1. Afghan Support Committee (a.k.a. Ahya ul Turas; a.k.a. Jamiat Ayat-ur-Rhas al Islamia; a.k.a. Jamiat Ihya ul Turath al Islamia; a.k.a. Lajnat el Masa Eidatul Afghania)
2. Al Taqwa Trade, Property and Industry Company Ltd. (f.k.a. Al Taqwa Trade, Property and Industry; f.k.a. Al Taqwa Trade, Property and Industry Establishment; f.k.a. Himmat Establishment; a.k.a. Waldenberg, AG)
3. Al-Hamati Sweets Bakeries
4. Al-Ittihad al-Islami (AIAI)
5. Al-Manar
6. Al-Ma'unah
7. Al-Nur Honey Center
8. Al-Rashid Trust
9. Al-Shifa Honey Press for Industry and Commerce
10. Al-Wafa al-Igatha al-Islamia (a.k.a. Wafa Humanitarian Organization; a.k.a. Al Wafa; a.k.a. Al Wafa Organization)
11. Alex Boncayao Brigade (ABB)
12. Anarchist Faction for Overthrow
13. Army for the Liberation of Rwanda (ALiR) (a.k.a. Interahamwe, Former Armed Forces (EX-FAR))
14. Asbat al-Ansar
15. Babbar Khalsa International
16. Bank Al Taqwa Ltd. (a.k.a. Al Taqwa Bank; a.k.a. Bank Al Taqwa)
17. Black Star
18. Communist Party of Nepal (Maoist) (a.k.a. CPN(M); a.k.a. the United Revolutionary People's Council, a.k.a. the People's Liberation Army of Nepal)
19. Continuity Irish Republican Army (CIRA) (a.k.a. Continuity Army Council)
20. Darkazanli Company
21. Dhamat Houmet Daawa Salafia (a.k.a. Group Protectors of Salafist Preaching; a.k.a. Houmat Ed Daawa Es Salifiya; a.k.a. Katibat El Ahoual; a.k.a. Protectors of the Salafist Predication; a.k.a. El-Ahoual Battalion; a.k.a. Katibat El Ahouel; a.k.a. Houmate Ed-Daawa Es-Salafia; a.k.a. the Horror Squadron; a.k.a. Djamaat Houmat Eddawa Essalafia; a.k.a. Djamaatt Houmat Ed Daawa Es Salafiya; a.k.a. Salafist Call Protectors; a.k.a. Djamaat Houmat Ed Daawa Es Salafiya; a.k.a. Houmate el Da'awaa es-Salafiyya; a.k.a. Protectors of the Salafist Call; a.k.a. Houmat ed-Daaoua es-Salafia; a.k.a. Group of Supporters of the Salafiste Trend; a.k.a. Group of Supporters of the Salafist Trend)
22. Eastern Turkistan Islamic Movement (a.k.a. Eastern Turkistan Islamic Party; a.k.a. ETIM; a.k.a. ETIP)
23. First of October Antifascist Resistance Group (GRAPO) (a.k.a. Grupo de Resistencia Anti-Fascista Premero De Octubre)
24. Harakat ul Jihad i Islami (HUJI)
25. International Sikh Youth Federation
26. Islamic Army of Aden
27. Islamic Renewal and Reform Organization
28. Jamiat al-Ta'awun al-Islamiyya
29. Jamiat ul-Mujahideen (JUM)
30. Japanese Red Army (JRA)
31. Jaysh-e-Mohammed
32. Jayshullah
33. Jerusalem Warriors
34. Lashkar-e-Tayyiba (LET) (a.k.a. Army of the Righteous)

35. Libyan Islamic Fighting Group
36. Loyalist Volunteer Force (LVF)
37. Makhtab al-Khidmat
38. Moroccan Islamic Combatant Group (a.k.a. GICM; a.k.a. Groupe Islamique Combattant Marocain)

OHIO DEPARTMENT OF PUBLIC SAFETY
Division of Homeland Security

39. Nada Management Organization (f.k.a. Al Taqwa Management Organization SA)
40. New People's Army (NPA)
41. Orange Volunteers (OV)
42. People Against Gangsterism and Drugs (PAGAD)
43. Red Brigades-Combatant Communist Party (BR-PCC)
44. Red Hand Defenders (RHD)
45. Revival of Islamic Heritage Society (Pakistan and Afghanistan offices -- Kuwait office not designated) (a.k.a. Jamia Ihya ul Turath; a.k.a. Jamiat Ihia Al- Turath Al-Islamiya; a.k.a. Revival of Islamic Society Heritage on the African Continent)
46. Revolutionary Proletarian Nucleus
47. Revolutionary United Front (RUF)
48. Salafist Group for Call and Combat (GSPC)
49. The Allied Democratic Forces (ADF)
50. The Islamic International Brigade (a.k.a. International Battalion, a.k.a. Islamic Peacekeeping International Brigade, a.k.a. Peacekeeping Battalion, a.k.a. The International Brigade, a.k.a. The Islamic Peacekeeping Army, a.k.a. The Islamic Peacekeeping Brigade)
51. The Lord's Resistance Army (LRA)
52. The Pentagon Gang
53. The Riyadus-Salikhin Reconnaissance and Sabotage Battalion of Chechen Martyrs (a.k.a. Riyadus-Salikhin Reconnaissance and Sabotage Battalion, a.k.a. Riyadh-as-Saliheen, a.k.a. the Sabotage and Military Surveillance Group of the Riyadh al-Salihin Martyrs, a.k.a. Riyadus Salikhin Reconnaissance and Sabotage Battalion of Shahids (Martyrs))
54. The Special Purpose Islamic Regiment (a.k.a. the Islamic Special Purpose Regiment, a.k.a. the al-Jihad-Fisi-Sabililah Special Islamic Regiment, a.k.a. Islamic Regiment of Special Meaning)
55. Tunisian Combat Group (a.k.a. GCT, a.k.a. Groupe Combattant Tunisien, a.k.a. Jama'a Combattante Tunisien, a.k.a. JCT; a.k.a. Tunisian Combatant Group)
56. Turkish Hizballah
57. Ulster Defense Association (a.k.a. Ulster Freedom Fighters)
58. Ummah Tameer E-Nau (UTN) (a.k.a. Foundation for Construction; a.k.a. Nation Building; a.k.a. Reconstruction Foundation; a.k.a. Reconstruction of the Islamic Community; a.k.a. Reconstruction of the Muslim Ummah; a.k.a. Ummah Tameer I-Nau; a.k.a. Ummah Tameer E-Nau; a.k.a. Ummah Tameer-I-Pau)
59. Youssef M. Nada & Co. Gesellschaft M.B.H.

U.S. Treasury Department's Designated Charities and Potential Fundraising Front Organizations for FTOs

1. Makhtab al-Khidamat / Al Kifah (formerly U.S.-based, Pakistan)
2. Al Rashid Trust (Pakistan)
3. WAFA Humanitarian Organization (Pakistan, Saudi Arabia, Kuwait, United Arab Emirates)

4. Rabita Trust (Pakistan)
5. Ummah Tameer E-Nau (Pakistan)
6. Revival of Islamic Heritage Society - Pakistan and Afghanistan Branches (Kuwait, Afghanistan, Pakistan)
7. Afghan Support Committee (Afghanistan, Pakistan)
8. Al Haramain Foundation (Indonesia, Kenya, Pakistan, Tanzania, Bosnia, Somalia, Bangladesh, Afghanistan, Albania, Ethiopia, Netherlands, Comoros Islands, and United States branches)
9. Aid Organization of the Ulema (Pakistan)
10. Global Relief Foundation (United States)

OHIO DEPARTMENT OF PUBLIC SAFETY
Division of Homeland Security

11. Benevolence International Foundation (United States):
12. Benevolence International Fund (Canada)
13. Bosanska Idealna Futura (Bosnia)
14. Stichting Benevolence International Nederland (Netherlands)
15. Lajnat al Daawa al Islamiyya (Kuwait, Pakistan, Afghanistan)
16. Al Akhtar Trust (Pakistan)
17. Taibah International (Bosnia)
18. Al Haramain & Al Masjed Al Aqsa Charity Foundation (Bosnia)
19. Al Furqan (Bosnia)
20. Islamic African Relief Agency (IARA) / Islamic Relief Agency (ISRA) (Sudan, United States and 40 other branches throughout the world)
21. The Holy Land Foundation for Relief and Development (United States)
22. Al Aqsa Foundation (United States, Europe, Pakistan, Yemen, South Africa)
23. Commité de Bienfaisance et de Secours aux Palestiniens (France)
24. Association de Secours Palestinien (Switzerland)
25. Interpal (Palestinian Relief & Development Fund) (United Kingdom)
26. Palestinian Association in Austria (Austria)
27. Sanibil Association for Relief and Development (Lebanon)
28. Elehssan Society (Palestinian territories)
29. Aleph (Aum Shinrikyo/Aum Supreme Truth)
30. Rabbi Meir David Kahane Memorial Fund (Kahane Chai and Kach)
American Friends of the United Yeshiva (Kahane Chai and Kach)
American Friends of Yeshivat Rav Meir (Kahane Chai and Kach)
Friends of the Jewish Idea Yeshiva (Kahane Chai and Kach)
31. Irish Republican Prisoners Welfare Association (Real IRA)
32. Socorro Popular Del Peru/People's Aid of Peru (Sendero Luminoso/Shining Path)

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APPENDIX

A

Prevailing Wages

This project will utilize Ohio Prevailing Wage Rates.

Prevailing Wage Determination Cover Letter

County: STARK
Determination Date: 02/05/2013
Expiration Date: 05/05/2013

THE FOLLOWING PAGES ARE PREVAILING RATES OF WAGES ON PUBLIC IMPROVEMENTS FAIRLY ESTIMATED TO BE MORE THAN THE AMOUNT IN O.R.C. SEC. 4115.03 (b) (1) or (2), AS APPLICABLE.

Section 4115.05 provides, in part: "Where contracts are not awarded or construction undertaken within ninety days from the date of the establishment of the prevailing wages, there shall be a redetermination of the prevailing rate of wages before the contract is awarded." The expiration date of this wage schedule is listed above for your convenience only. This wage determination is not intended as a blanket determination to be used for all projects during this period without prior approval of this Department.

Section 4115.04, Ohio Revised Code provides, in part: "Such schedule of wages shall be attached to and made a part of the specifications for the work, and shall be printed on the bidding blanks where the work is done by contract..."

The contract between the letting authority and the successful bidder shall contain a statement requiring that mechanics and laborers be paid a prevailing rate of wage as required in Section 4115.06, Ohio Revised Code.

The contractor or subcontractor is required to file with the contracting public authority upon completion of the project and prior to final payment therefore an affidavit stating that he has fully complied with Chapter 4115 of the Ohio Revised Code.

The wage rates contained in this schedule are the "Prevailing Wages" as defined by Section 4115.03, Ohio Revised Code (the basic hourly rates plus certain fringe benefits). These rates and fringes shall be a minimum to be paid under a contract regulated by Chapter 4115 of the Ohio Revised Code by contractors and subcontractors. The prevailing wage rates contained in this schedule include the effective dates and wage rates currently on file. In cases where future effective dates are not included in this schedule, modifications to the wage schedule will be furnished to the Prevailing Wage Coordinator appointed by the public authority as soon as prevailing wage rates increases are received by this office.

"There shall be posted in a prominent and accessible place on the site of work a legible statement of the Schedule of Wage Rates specified in the contract to the various classifications of laborers, workmen, and mechanics employed, said statement to remain posted during the life of such contract." Section 4115.07, Ohio Revised Code.

Apprentices will be permitted to work only under a bona fide apprenticeship program if such program exists and if such program is registered with the Ohio Apprenticeship Council.

Section 4115.071 provides that no later than ten days before the first payment of wages is due to any employee of any contractor or subcontractor working on a contract regulated by Chapter 4115, Ohio Revised Code, the contracting public authority shall appoint one of his own employees to act as the prevailing wage coordinator for said contract. The duties of the prevailing wage coordinator are outlined in Section 4115.071 of the Ohio Revised Code.

Section 4115.05 provides for an escalator in the prevailing wage rate. Each time a new rate is established, that rate is required to be paid on all ongoing public improvement projects.

A further requirement of Section 4115.05 of the Ohio Revised Code is: "On the occasion of the first pay date under a contract, the contractor shall furnish each employee not covered by a collective bargaining agreement or understanding between employers and bona fide organizations of Labor with individual written notification of the

job classification to which the employee is assigned, the prevailing wage determined to be applicable to that classification, separated into the hourly rate of pay and the fringe payments, and the identity of the prevailing wage Coordinator appointed by the public authority. The contractor or subcontractor shall furnish the same notification to each affected employee every time the job classification of the employee is changed."

Work performed in connection with the installation of modular furniture may be subject to prevailing wage.

THIS PACKET IS NOT TO BE SEPARATED BUT IS TO REMAIN COMPLETE AS IT IS SUBMITTED TO YOU. (Reference guidelines and forms are included in this packet to be helpful in the compliance of the Prevailing Wage law.)
wh1500

Department of Commerce

Division of Industrial Compliance

PREVAILING WAGE THRESHOLD LEVELS

IMPORTANT NOTICE

Before advertising for bids, contracting, or undertaking construction with its own forces to construct a public improvement, the Public Authority shall have the Ohio Department of Commerce-Division of Industrial Compliance Bureau of Wage and Hour Administration determine the prevailing rates of wages for workers employed on the public improvement. The wage determination must be included in the project specifications and printed on the bidding blanks where work is done by contract.

As of September 29, 2012:

"New" construction threshold level has been adjusted to :	**$200,000**

"Reconstruction, enlargement, alteration, repair, remodeling, renovation, or painting" threshold level has been adjusted to:	**$60,000**

A) The threshold for new construction will increase to: $250,000 beginning September 29, 2013.

B) The threshold for reconstruction will increase to: $75,000 beginning September 29, 2013.

As of January 1, 2012:

"New" construction that involves roads, streets, alleys, sewers, ditches and other works connected to road or bridge construction threshold level has been adjusted to:	**$82,137**

"Reconstruction, enlargement, alteration, repair, remodeling, renovation, or painting" that involves roads, streets, alleys, sewers, ditches and other works connected to road or bridge construction threshold level has been adjusted to:	**$24,609**

A) Thresholds are to be adjusted biennially by the Director of the Ohio Department of Commerce.

B) Biennial adjustments to threshold levels are made according to the Price Deflator for Construction Index, United States Department of Commerce, Bureau of the Census*, but may not increase or decrease more than 3% for any year.

*Please note, in the absence of a published Price Deflator for Construction Index, the threshold adjustment is calculated using the Building Cost for Skilled Labor Index published by McGraw-Hill's Engineering News-Record

If there are questions concerning this notification, please contact:

Ohio Department of Commerce
Division of Industrial Compliance
Bureau of Wage and Hour Administration
6606 Tussing Road, PO Box 4009
Reynoldsburg, Ohio 43068-9009
614-644-2239
TTY/TDD: 1-800-750-0750
www.com.ohio.gov

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BID TABULATION SHEET

Please print and complete this form. Keep it with your records until the contract has been awarded. Once the contract has been officially awarded, check mark which company was awarded the contract for the project and send or fax a copy to the Wage and Hour Division at 614-728-8639.

Contracting Public Authority:		
Project Name:		
Project No.	Bid Date:	Estimate:

Contract Description: ☐ General ☐ HVAC ☐ Electrical ☐ Plumbing ☐ Asbestos ☐ Other _____

Awarded To(check)	List of the Bidding Contractors	Total Bid Amount

Submitted By	
Print Name:	Title:
Telephone No.:	FAX:
Signature:	Date:

Commerce Bureau of Wage & Hour Administration

INSTRUCTIONS FOR PREPARING CERTIFIED PAYROLL REPORTS

General

Contractors and subcontractors are required by law to submit certified payroll reports for work on projects covered by Ohio's Prevailing Wage Law. This form meets the reporting requirements established by Ohio Revised Code Chapter 4115. The use of this form is not mandatory, employers may submit their own forms provided that all of the required information is included. This form may be reproduced, or additional copies obtained from:

Ohio Department of Commerce
Division of Industrial Compliance and Labor
Bureau of Wage & Hour Administration
6606 Tussing Rd.
P. O. Box 4009
Reynoldsburg, OH 43068-9009

Phone: (614) 644-2239

Certified Payroll Heading

Employer name and address: Company's full name and address. Indicate if the company is a subcontractor, if so list the name of the General or Prime.
Project: Name and location of the project, including county.
Contracting Public Authority: Name and address of the contracting public authority.
Week Ending: Month, day, and year for last day of reporting period.
Payroll # : Indicates first, second, third, etc. payroll filed by the company for the project.
Page indicator: number of pages included in the report.
Project Number: Determined by the public authority. If there is no number leave blank.

Payroll Information by Column

1. Employee Name, Address and Social Security number: This information must be provided for all employees that perform physical labor on the project. Corporate officers, partners, and salaried employees are considered employees and must be paid the prevailing rate. Individual sole proprietors do not have to pay themselves prevailing rate but must report their hours on the project.

2. Work Class: List classification of work actually performed by employee. If unsure of work classification, consult the Ohio department of Commerce, Wage and Hour Bureau. Employees working more than one classification should have separate line entries for each classification. Indicate what year/level for Apprentices. Be specific when using laborer and operator classifications; for example, Backhoe Operator or Asphalt Laborer.

3. Hours Worked, Day & Date: In the first row of column 3 enter days of pay period example; M T W TH F S S. The second row is for the date that corresponds with each day for the pay period. In the employee information section enter the number of hours worked on the prevailing wage project and which day the hours were worked. Separate rows are labeled for (ST) straight time hours and (OT) overtime hours. All hours worked after 40, must be paid at the appropriate overtime rate.

4. Project Total Hours : Total the hours entered for pay period.

5. Base Rate: Enter actual rate per hour paid to the employee. The overtime hourly rate is time and one-half the base rate listed in the prevailing wage schedule plus fringe benefits at straight time rate. The prevailing wage schedule lists the base rate plus fringe benefit amounts. These amounts added together equal the total prevailing wage rate. Employers must pay this total amount in one of three ways.

Total rate may be paid in entirety in the base rate to the employee; in which case, the cash designation will be checked for fringe benefits.
Total rate may be paid as listed in prevailing wage rate schedule with total fringe amounts paid approved plans.
Total rate may be paid with a combination of base rate and fringe payments to approved plans in amounts other than those listed in schedule.

6. Project Gross: Enter total gross wages earned on the project for straight time and overtime. Project hours X base rate should equal project gross.

7. Fringes: If fringe benefits are paid in the hourly base rate, indicate this by marking the cash space. If fringe benefits are paid to approved plans as listed in the prevailing wage rate schedule, mark the space Approved Plans. If fringe benefits are paid partially in the base rate and partially to approved plans, mark the space Cash & Approved plans. List the hourly amount paid to approved plans for each fringe. If payments are not made on a per hour basis, calculate the hourly fringe credit by dividing the yearly employer contribution by the lesser of: hours actually worked in the year (these must be documented) or 2080. Fringe benefits include: Employer's share of health insurance, life insurance, retirement plan, bonus/profit sharing, sick pay, holiday pay, personal leave, vacation, and education/training programs.

8. Total Hours All Jobs: Total all hours worked during the pay period including non-prevailing wage jobs.

9. Total Gross All Jobs: Gross amount earned in the pay period for all hours worked.

10. Self explanatory.

11. Self explanatory.

12. Self explanatory.

Department of Commerce

Division of Industrial Compliance

Bureau of Wage and Hour Administration
6606 Tussing Road - PO Box 4009
Reynoldsburg, OH 43068-9009
Phone 614-644-2239 | Fax 614-728-8639
TTY/TDD 800-750-0750
www.com.ohio.gov
An Equal Opportunity Employer and Service Provider

John R. Kasich, Governor
David Goodman, Director

Affidavit Of Compliance

PREVAILING WAGES

I, _____
(Name of person signing affidavit) (Title)

do hereby certify that the wages paid to all employees of

_____
(Company Name)

for all hours worked on the

_____
(Project name and location)

project, during the period from _____ to _____ are in
(Project Dates)

compliance with prevailing wage requirements of Chapter 4115 of the Ohio Revised Code. I further certify that no rebates or deductions have been or will be made, directly or indirectly, from any wages paid in connection with this project, other than those provided by law.

_____
(Signature of Officer or Agent)

Sworn to and subscribed in my presence this _____ day of _____,
20_____.

_____ (Notary Public)

The above affidavit must be executed and sworn to by the officer or agent of the contractor or subcontractor who supervises the payment of employees. This affidavit must be submitted to the owner (public authority) before the surety is released or final payment due under the terms of the contract is made.

LAW1003

PREVAILING WAGE NOTIFICATION TO EMPLOYEE

Project Name:	Job Number:
Contractor:	
Project Location:	
Jobsite posting of prevailing wage rates located:	

Prevailing Wage Coordinator	Employee
Name:	Name:
Street:	Street:
City:	City:
State / Zip:	State / Zip:
Phone:	Phone:

You will be performing work on this project that falls under these classifications. You will be paid the appropriate rate for the type of work you are performing.

Classification	Prevailing Wage Rate Total Package	Minus Your Fringe Benefits	Your Hourly Base Rate

Hourly fringe benefits paid on your behalf by this company.

Fringe	Amount	Fringe	Amount
Health Insurance		Health Insurance	
Life Insurance		Holiday	
Pension		Sick Pay	
Bonus		Training	
Other		**TOTAL HOURLY FRINGES**	

Contractor's Signature:	Date:
Employee's Signature:	Date:

whpw1512

CERTIFIED PAYROLL REPORT

Employer Name & Address	Name of General / Prime Contractor	Project Name & Location	Contracting Public Authority
Check if subcontractor ☐	Week Ending	Payroll # Page_____Of_____	Project Number

1. Employee Name, Address and Social Security Number	2. Work Class		3. Hours Worked - Day & Date							4. Project Total Hrs	5. Base Rate	6. Project Gross	7. Fringes. Cash ☐ Approved Plans ☐ Cash & Approved Plans ☐					8. Total Hours All Jobs	9. Total Gross All Jobs	10. Taxes Withheld	11. Other Deducts	12. NET Paid
													H&W	Pens	Vac	App	Other					
		OT																				
		ST																				
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Date_____My signature on this form signifies that I pay, or supervise the payment of the employees shown above. I am certifying: 1) That during the pay period reported on this form, all hours worked on this project have been paid at the appropriate prevailing wage rate for the class of work done. 2) That the fringe benefits have been paid as indicated above. 3) That no rebates or deductions have been or will be made, directly or indirectly from the total wages earned, other than permissable deductions as defined in the Ohio Revised Code Chapter 4115. 4) That apprentices are registered with the U.S. Department of Labor, Bureau of Apprenticeship and Training. The willful falsification of any of the above statements may subject the contractor or subcontractor to civil or criminal prosecution.

Name and Title _____ Signature _____

Prevailing Wage Rate
Skilled Crafts

Name of Union: Asbestos Local 207 OH

Change # : LCN01-2012fbLoc207OH

Craft : Asbestos Worker Effective Date : 08/29/2012 Last Posted : 08/29/2012

	BHR	Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
		H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification											
Asbestos Abatement	$24.30	$6.40	$4.60	$0.65	$0.00	$0.00	$0.00	$0.00	$0.05	$36.00	$48.15
Trainee	$15.70	$6.40	$1.25	$0.65	$0.00	$0.00	$0.00	$0.00	$0.05	$24.05	$31.90

Special Calculation Note :

Ratio :

2 Journeymen to 1 Trainee

Jurisdiction (* denotes special jurisdictional note) :

ADAMS, ASHLAND, ASHTABULA*, ATHENS, AUGLAIZE, BROWN, BUTLER*, CARROLL, CHAMPAIGN, CLARK, CLERMONT, CLINTON, COLUMBIANA, COSHOCTON, CRAWFORD, CUYAHOGA, DARKE, DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, GEAUGA, GREENE, GUERNSEY, HAMILTON, HARDIN, HARRISON, HIGHLAND, HOCKING, HOLMES, HURON, KNOX, LAKE, LICKING, LOGAN, LORAIN, MADISON, MAHONING, MARION, MEDINA, MIAMI, MONTGOMERY, MORGAN, MORROW, MUSKINGUM, NOBLE, PERRY, PICKAWAY, PORTAGE, PREBLE, RICHLAND, ROSS, SHELBY, STARK, SUMMIT,

TRUMBULL, TUSCARAWAS, UNION,
VINTON, WARREN*, WAYNE

Special Jurisdictional Note : Butler County:(townships of Fairfield,Hanover,Liberty,Milford,Morgan,Oxford,Ripley,Ross,StClair,Union & Wayne.) (Lemon & Madison) Warren County: (townships of: Deerfield, Hamilton, Harlan, Salem, Union & Washington). (Clear Creek, Franklin, Mossie, Turtle Creek & Wayney). Ashtabula County: (post offices & townships of Ashtabula, Austinburg, Geneva, Harperfield, Jefferson, Plymouth & Saybrook) (townships of Andover, Cherry Valley, Colbrook, Canneaut, Denmark, Dorset, East Orwell, Hartsgrove, Kingville, Lenox, Monroe,Morgan,New Lyme,North Kingsville, Orwell, Pierpoint, Richmond Rock Creek, Rome, Shefield, Trumbull, Wayne, Williamsfield & Windsor) Erie County:(post offices & townships of Berlin, Berlin Heights,Birmingham,Florence ,Huron, Milan, Shinrock & Vermilion)

Details :

Asbestos & lead paint abatement including,but not limited to the removal or encapsulation of asbestos & lead paint,all work in conjunction with the preparation of the removal of same & all work in conjunction with the clean up after said removal.The removal of all insulation materials, whether they contain asbestos or not, from mechanical systems (pipes, boilers, ducts, flues, breaching, etc.) is recognized as being the exclusive work of the Asbestos Abatement Workers.

On all mechanical systems (pipes, boilers, ducts, flues, breaching, etc.) that are going to be demolished, the removal of all insulating materials whether they contain asbestos or not shall be the exclusive work of the Laborers.
An Abatement Journeyman is anyone who has more than 300 hours in the Asbestos Abatement field.

Prevailing Wage Rate
Skilled Crafts

Name of Union: Asbestos Local 84 Heat & Frost Insulators

Change # : LCN01-2013fbLoc84

Craft : Asbestos Worker Effective Date : 02/13/2013 Last Posted : 02/13/2013

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Asbestos Insulation Worker	$28.65		$6.30	$6.77	$0.25	$0.00	$2.75	$0.00	$0.00	$0.00	$44.72	$59.04
Apprentice	**Percent**											
1st Year	50.00	$14.33	$6.30	$6.77	$0.30	$0.00	$2.75	$0.00	$0.00	$0.00	$30.44	$37.61
2nd Year	60.00	$17.19	$6.30	$6.77	$0.30	$0.00	$2.75	$0.00	$0.00	$0.00	$33.31	$41.90
3rd Year	70.03	$20.06	$6.30	$6.77	$0.30	$0.00	$2.75	$0.00	$0.00	$0.00	$36.18	$46.22
4th Year	80.00	$22.92	$6.30	$6.77	$0.30	$0.00	$2.75	$0.00	$0.00	$0.00	$39.04	$50.50

Special Calculation Note : No special calculations for this skilled craft wage rate are required at this time.

Ratio :

3 Journeymen to 1 Apprentice per shop

Jurisdiction (* denotes special jurisdictional note) :

ASHLAND, ASHTABULA*, CARROLL, COLUMBIANA, COSHOCTON, ERIE*, HARRISON, HOLMES, MAHONING, MEDINA, PORTAGE, RICHLAND, STARK, SUMMIT, TRUMBULL, TUSCARAWAS, WAYNE

Special Jurisdictional Note : Ashtabula County: except for the townships of Ashtabula, Austinburg, Geneva, Harpersfield, Jefferson, Plymouth and Saybrook.Erie except Sandusky city limits.

Details :

The removal of all insulation materials, whether they contain asbestos or not, from mechanical systems (pipes, boilers, ducts, flues, breaching, etc.) is recognized as being the exclusive work of the Asbestos Workers.

On all mechanical systems (pipes, boilers, ducts, flues, breaching, etc.) that are going to be demolished, the removal of all insulating materials whether they contain asbestos or not shall be the exclusive work of the Laborers.

Prevailing Wage Rate
Skilled Crafts

Name of Union: Asbestos Local 84 Heat & Frost Insulators

Change # : LCN01-2013fbLoc84

Craft : Asbestos Worker Effective Date : 07/01/2013 Last Posted : 02/13/2013

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Asbestos Insulation Worker	$29.70		$6.30	$6.77	$0.25	$0.00	$2.75	$0.00	$0.00	$0.00	$45.77	$60.62
Apprentice	Percent											
1st Year	50.00	$14.85	$6.30	$6.77	$0.30	$0.00	$2.75	$0.00	$0.00	$0.00	$30.97	$38.39
2nd Year	60.00	$17.82	$6.30	$6.77	$0.30	$0.00	$2.75	$0.00	$0.00	$0.00	$33.94	$42.85
3rd Year	70.00	$20.79	$6.30	$6.77	$0.30	$0.00	$2.75	$0.00	$0.00	$0.00	$36.91	$47.30
4th Year	80.00	$23.76	$6.30	$6.77	$0.30	$0.00	$2.75	$0.00	$0.00	$0.00	$39.88	$51.76

Special Calculation Note : No special calculations for this skilled craft wage rate are required at this time.

Ratio :

3 Journeymen to 1 Apprentice per shop

Jurisdiction (* denotes special jurisdictional note) :

ASHLAND, ASHTABULA*, CARROLL, COLUMBIANA, COSHOCTON, ERIE*, HARRISON, HOLMES, MAHONING, MEDINA, PORTAGE, RICHLAND, STARK, SUMMIT, TRUMBULL, TUSCARAWAS, WAYNE

Special Jurisdictional Note : Ashtabula County: except for the townships of Ashtabula, Austinburg, Geneva, Harpersfield, Jefferson, Plymouth and Saybrook.Erie except Sandusky city limits.

Details :

The removal of all insulation materials, whether they contain asbestos or not, from mechanical systems (pipes, boilers, ducts, flues, breaching, etc.) is recognized as being the exclusive work of the Asbestos Workers.

On all mechanical systems (pipes, boilers, ducts, flues, breaching, etc.) that are going to be demolished, the removal of all insulating materials whether they contain asbestos or not shall be the exclusive work of the Laborers.

Prevailing Wage Rate
Skilled Crafts

Name of Union: Boilermaker Local 744

Change # : CN01-2008Loc744

Craft : Boilermaker Effective Date : 07/01/2009 Last Posted : 06/30/2010

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Boilermaker	$36.84		$6.82	$6.46	$0.35	$0.00	$3.75	$0.00			$54.22	$72.64
Apprentice	Percent											
1st 6 months	70.00	$25.79	$6.62	$6.46	$0.30	$0.00	$3.75	$0.00			$42.92	$55.81
2nd 6 months	72.52	$26.72	$6.62	$6.46	$0.30	$0.00	$3.75	$0.00			$43.85	$57.20
3rd 6 months	75.00	$27.63	$6.62	$6.46	$0.30	$0.00	$3.75	$0.00			$44.76	$58.58
4th 6 months	77.51	$28.55	$6.62	$6.46	$0.30	$0.00	$3.75	$0.00			$45.68	$59.96
5th 6 months	80.02	$29.48	$6.62	$6.46	$0.30	$0.00	$3.75	$0.00			$46.61	$61.35
6th 6 months	85.00	$31.31	$6.62	$6.46	$0.30	$0.00	$3.75	$0.00			$48.44	$64.10
7th 6 months	90.00	$33.16	$6.62	$6.46	$0.30	$0.00	$3.75	$0.00			$50.29	$66.86
8th 6 months	95.02	$35.01	$6.62	$6.46	$0.30	$0.00	$3.75	$0.00			$52.14	$69.64
Helper	60.00	$22.10	$6.82	$6.46	$0.35	$0.00	$3.75	$0.00			$39.48	$50.54

Special Calculation Note : No special calculations for this skilled craft wage rate are required at this time.

Ratio :

Jurisdiction (* denotes special jurisdictional note) :

5 Journeymen to 1 Apprentice to 1 Helper	ASHTABULA, CARROLL, COSHOCTON, CUYAHOGA, GEAUGA, HARRISON, HOLMES, LAKE, LORAIN, MAHONING, MEDINA, PORTAGE, STARK, SUMMIT, TRUMBULL, TUSCARAWAS, WAYNE

Special Jurisdictional Note :

Details :

Prevailing Wage Rate
Skilled Crafts

Name of Union: Bricklayer Local 6

Change # : LCN01-2012jcLoc6

Craft : Bricklayer Effective Date : 05/02/2012 Last Posted : 05/02/2012

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Bricklayer	$26.00		$5.30	$5.48	$0.50	$0.00	$0.00	$0.00	$0.00	$0.00	$37.28	$50.28
Pointer Caulker Cleaner	$26.00		$5.30	$5.48	$0.50	$0.00	$0.00	$0.00	$0.00	$0.00	$37.28	$50.28
Stone Mason	$26.00		$5.30	$5.48	$0.50	$0.00	$0.00	$0.00	$0.00	$0.00	$37.28	$50.28
Cement Mason	$26.00		$5.30	$5.48	$0.50	$0.00	$0.00	$0.00	$0.00	$0.00	$37.28	$50.28
Plaster	$26.00		$5.30	$5.48	$0.50	$0.00	$0.00	$0.00	$0.00	$0.00	$37.28	$50.28
Apprentice	Percent											
1st 4 months	50.00	$13.00	$5.30	$5.48	$0.50	$0.00	$0.00	$0.00	$0.00	$0.00	$24.28	$30.78
2nd 4 months	55.00	$14.30	$5.30	$5.48	$0.50	$0.00	$0.00	$0.00	$0.00	$0.00	$25.58	$32.73
3rd 4 months is 1st year	60.00	$15.60	$5.30	$5.48	$0.50	$0.00	$0.00	$0.00	$0.00	$0.00	$26.88	$34.68
4th 4 months	65.00	$16.90	$5.30	$5.48	$0.50	$0.00	$0.00	$0.00	$0.00	$0.00	$28.18	$36.63
5th 4 months	70.00	$18.20	$5.30	$5.48	$0.50	$0.00	$0.00	$0.00	$0.00	$0.00	$29.48	$38.58
6th 4 months is 2nd year	75.00	$19.50	$5.30	$5.48	$0.50	$0.00	$0.00	$0.00	$0.00	$0.00	$30.78	$40.53
24 through 36 months is 3rd year	80.00	$20.80	$5.30	$5.48	$0.50	$0.00	$0.00	$0.00	$0.00	$0.00	$32.08	$42.48

36 through 48 months is 4th year	90.00	$23.40	$5.30	$5.48	$0.50	$0.00	$0.00	$0.00	$0.00	$0.00	$34.68	$46.38

Special Calculation Note : OTHER IS :INTERNATIONAL MASONRY INSTITUTE

Ratio :

3 Journeymen to 1 Apprentice
8 Journeymen to 2 Apprentice

Jurisdiction (* denotes special jurisdictional note) :
CARROLL, COLUMBIANA*, STARK, TUSCARAWAS

Special Jurisdictional Note : In Columbiana County the following townships are included: (Knox, West, Butler, and Hanover)

Details :

Prevailing Wage Rate
Skilled Crafts

Name of Union: Bricklayer Local 6 Tile Setters & Finishers

Change # : LCN1-2012jcLoc6

Craft : Bricklayer Effective Date : 05/02/2012 Last Posted : 05/02/2012

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Bricklayer Tile Setter	$23.89		$4.55	$4.66	$0.55	$0.00	$0.00	$0.00	$0.00	$0.00	$33.65	$45.60
Marble Mason	$23.89		$4.55	$4.66	$0.55	$0.00	$0.00	$0.00	$0.00	$0.00	$33.65	$45.60
Terrazzo worker	$23.89		$4.55	$4.66	$0.55	$0.00	$0.00	$0.00	$0.00	$0.00	$33.65	$45.60
Finisher Support	$21.28		$4.55	$4.66	$0.55	$0.00	$0.00	$0.00	$0.00	$0.00	$31.04	$41.68
APPRENTICE Finisher Support Only												
1ST 6 months	$12.77		$4.55	$4.66	$0.55	$0.00	$0.00	$0.00	$0.00	$0.00	$22.53	$28.92
2ND 6 months	$14.90		$4.55	$4.66	$0.55	$0.00	$0.00	$0.00	$0.00	$0.00	$24.66	$32.11
3RD 6 months	$15.96		$4.55	$4.66	$0.55	$0.00	$0.00	$0.00	$0.00	$0.00	$25.72	$33.70
4TH 6 months	$17.02		$4.55	$4.66	$0.55	$0.00	$0.00	$0.00	$0.00	$0.00	$26.78	$35.29
5TH 6 months	$18.09		$4.55	$4.66	$0.55	$0.00	$0.00	$0.00	$0.00	$0.00	$27.85	$36.89
6TH 6 months	$19.15		$4.55	$4.66	$0.55	$0.00	$0.00	$0.00	$0.00	$0.00	$28.91	$38.49
Apprentice	**Percent**											
1st 30 Days	35.00	$8.36	$4.55	$4.66	$0.55	$0.00	$0.00	$0.00	$0.00	$0.00	$18.12	$22.30
31st day thru 1st 6 months	40.00	$9.56	$4.55	$4.66	$0.55	$0.00	$0.00	$0.00	$0.00	$0.00	$19.32	$24.09
2nd 6 months	45.00	$10.75	$4.55	$4.66	$0.55	$0.00	$0.00	$0.00	$0.00	$0.00	$20.51	$25.89
3rd 6 months	50.00	$11.95	$4.55	$4.66	$0.55	$0.00	$0.00	$0.00	$0.00	$0.00	$21.71	$27.68
4th 6 months	58.00	$13.86	$4.55	$4.66	$0.55	$0.00	$0.00	$0.00	$0.00	$0.00	$23.62	$30.54
5th 6 months	65.00	$15.53	$4.55	$4.66	$0.55	$0.00	$0.00	$0.00	$0.00	$0.00	$25.29	$33.05
6th 6 months	75.00	$17.92	$4.55	$4.66	$0.55	$0.00	$0.00	$0.00	$0.00	$0.00	$27.68	$36.64
7th 6 months	81.00	$19.35	$4.55	$4.66	$0.55	$0.00	$0.00	$0.00	$0.00	$0.00	$29.11	$38.79
8th 4 months	90.00	$21.50	$4.55	$4.66	$0.55	$0.00	$0.00	$0.00	$0.00	$0.00	$31.26	$42.01

Special Calculation Note : Classification title contains "Bricklayer" because contract originates within the Bricklayer Local.
Note that the classification description is clarified after the local union number at the top of the page.

Ratio :

5 Journeymen to 1 Apprentice

Jurisdiction (* denotes special jurisdictional note) :

CARROLL, COLUMBIANA, COLUMBIANA*, STARK, TUSCARAWAS

Special Jurisdictional Note : Tile Setter Work for Townships of Butler, Hanover, Knox, and West in Columbiana County

Details :

Prevailing Wage Rate
Skilled Crafts

Name of Union: Bricklayer Local 8 Tile Finisher

Change # : LCN01-2012fbLoc8

Craft : Bricklayer Effective Date : 06/06/2012 Last Posted : 06/06/2012

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Bricklayer Tile Marble Terrazzo Finisher	$22.66		$4.85	$7.46	$0.60	$0.00	$0.34	$0.00	$0.00	$0.00	$35.91	$47.24
Resilient flooring Wood Laminate Carpet Carpet Tile Finisher	$12.39		$4.85	$6.88	$0.25	$0.00	$0.00	$0.00	$0.00	$0.00	$24.37	$30.57
New Employees	Percent											
1st 30 days	60.00	$13.60	$0.00	$0.00	$0.60	$0.00	$0.00	$0.00	$0.00	$0.00	$14.20	$20.99
2nd 30 days thru 6 months	60.00	$13.60	$4.85	$7.46	$0.60	$0.00	$0.34	$0.00	$0.00	$0.00	$26.85	$33.64
2nd 6 months	70.00	$15.86	$4.85	$7.46	$0.60	$0.00	$0.34	$0.00	$0.00	$0.00	$29.11	$37.04
3rd 6 months	75.00	$17.00	$4.85	$7.46	$0.60	$0.00	$0.34	$0.00	$0.00	$0.00	$30.25	$38.74
4th 6 months	80.00	$18.13	$4.85	$7.46	$0.60	$0.00	$0.34	$0.00	$0.00	$0.00	$31.38	$40.44
5th 6 months	85.00	$19.26	$4.85	$7.46	$0.60	$0.00	$0.34	$0.00	$0.00	$0.00	$32.51	$42.14
6th 6 months	90.00	$20.39	$4.85	$7.46	$0.60	$0.00	$0.34	$0.00	$0.00	$0.00	$33.64	$43.84

7th 6 months	95.00	$21.53	$4.85	$7.46	$0.60	$0.00	$0.34	$0.00	$0.00	$0.00	$34.78	$45.54
8th 6 months	95.00	$21.53	$4.85	$7.46	$0.60	$0.00	$0.34	$0.00	$0.00	$0.00	$34.78	$45.54

Special Calculation Note : Classification title contains "Bricklayer" because contract originates within the Bricklayer Local.
Note that the classification description is clarified after the local union number at the top of the page.

Ratio :

Jurisdiction (* denotes special jurisdictional note) :
ASHTABULA, CARROLL, COLUMBIANA, COSHOCTON, HARRISON, HOLMES, JEFFERSON, MAHONING, PORTAGE, STARK, TRUMBULL, TUSCARAWAS, WAYNE

Special Jurisdictional Note :

Details :
Mechanic's assistants shall do all the handling, of sand, cement, lime, tile, marble, terrazzo and other materials used by the mechanics upon being delivered to the building or at the job. Hand rubbing, rolling, mixing, formulating, grinding, grouting, and cleaning of all marble, tile, mosaic, and terrazzo floors, and wainscoting, and such other work as is required in helping a mechanic as is the established custom of the trade. No limit to the tools, equipment or machinery used.

Prevailing Wage Rate
Skilled Crafts

Name of Union: Carpenter Local 509 NE District Interior Systems

Change # : LCN01-2010mmLoc509Int Systems

Craft : Carpenter Effective Date : 06/17/2010 Last Posted : 06/17/2010

	BHR	Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
		H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification											
Carpenter Window Shade Venetian Blinds Drapery Installer	$15.50	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00			$15.50	$23.25

Special Calculation Note : No special calculations for this skilled craft wage rate are required at this time.

Ratio :

Jurisdiction (* denotes special jurisdictional note) :
ADAMS, ALLEN, ASHLAND, ASHTABULA, ATHENS, AUGLAIZE, BELMONT, BROWN, BUTLER, CARROLL, CHAMPAIGN, CLARK, CLERMONT, CLINTON, COLUMBIANA, COSHOCTON, CRAWFORD, CUYAHOGA, DARKE, DEFIANCE, DELAWARE, ERIE, FAIRFIELD, FRANKLIN, FULTON, GALLIA, GEAUGA, GREENE, GUERNSEY, HAMILTON, HANCOCK, HARDIN, HARRISON, HENRY, HIGHLAND, HOCKING, HOLMES, HURON,

JACKSON, JEFFERSON, KNOX, LAKE, LAWRENCE, LICKING, LOGAN, LORAIN, LUCAS, MADISON, MAHONING, MARION, MEDINA, MEIGS, MERCER, MIAMI, MONROE, MONTGOMERY, MORGAN, MORROW, MUSKINGUM, NOBLE, OTTAWA, PAULDING, PERRY, PICKAWAY, PIKE, PORTAGE, PREBLE, PUTNAM, RICHLAND, ROSS, SANDUSKY, SCIOTO, SENECA, SHELBY, STARK, SUMMIT, TRUMBULL, TUSCARAWAS, UNION, VAN WERT, VINTON, WARREN, WASHINGTON, WAYNE

Special Jurisdictional Note :

Details :

Prevailing Wage Rate
Skilled Crafts

Name of Union: Carpenter Millwright Local 1871 NE District J

Change # : LCN03-2012fbLoc1871J

Craft : Carpenter Effective Date : 09/26/2012 Last Posted : 09/26/2012

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Carpenter Millwright	$25.10		$6.45	$4.42	$0.45	$0.00	$1.62	$0.00	$0.00	$0.00	$38.04	$50.59
Certified Welder	$26.10		$6.45	$4.42	$0.45	$0.00	$1.62	$0.00	$0.00	$0.00	$39.04	$52.09
Lay-Out Man on Monorail	$26.60		$6.45	$4.42	$0.45	$0.00	$1.62	$0.00	$0.00	$0.00	$39.54	$52.84
Apprentice	**Percent**											
1st 6 months	55.00	$13.81	$6.45	$4.42	$0.45	$0.00	$1.62	$0.00	$0.00	$0.00	$26.75	$33.65
2nd 6 months	58.50	$14.68	$6.45	$4.42	$0.45	$0.00	$1.62	$0.00	$0.00	$0.00	$27.62	$34.97
3rd 6 months	62.00	$15.56	$6.45	$4.42	$0.45	$0.00	$1.62	$0.00	$0.00	$0.00	$28.50	$36.28
4th 6 months	65.50	$16.44	$6.45	$4.42	$0.45	$0.00	$1.62	$0.00	$0.00	$0.00	$29.38	$37.60
5th 6 months	69.00	$17.32	$6.45	$4.42	$0.45	$0.00	$1.62	$0.00	$0.00	$0.00	$30.26	$38.92
6th 6 months	72.50	$18.20	$6.45	$4.42	$0.45	$0.00	$1.62	$0.00	$0.00	$0.00	$31.14	$40.24
7th 6 months	76.00	$19.08	$6.45	$4.42	$0.45	$0.00	$1.62	$0.00	$0.00	$0.00	$32.02	$41.55
8th 6 months	80.00	$20.08	$6.45	$4.42	$0.45	$0.00	$1.62	$0.00	$0.00	$0.00	$33.02	$43.06

Special Calculation Note : No special calculations for this skilled craft wage rate are required at this time.

Ratio :

4 Journeymen to 1 Apprentice

Jurisdiction (* denotes special jurisdictional note) :

CARROLL, STARK, TUSCARAWAS, WAYNE

Special Jurisdictional Note :

Details :

If certain projects warrant a larger percentage of apprentices, it will be agreed to increase the ratio of apprentices to journeymen, but Not to exceed (1) Apprentice to (4) Journeymen.
The following classifications will be paid at the amount above Journeyman Rate:
Certified Welder $1.00
Lay Out Man on Monorail $1.25

Prevailing Wage Rate
Skilled Crafts

Name of Union: Carpenter NE District Industrial Dock & Door

Change # : LCN01-2010jcCarpNEStatewide

Craft : Carpenter Effective Date : 10/27/2010 Last Posted : 10/27/2010

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Carpenter	$19.70		$4.85	$1.00	$0.15	$0.00	$0.00	$0.00			$25.70	$35.55
Trainee	Percent											
1st Year	60.00	$11.82	$4.85	$1.00	$0.15	$0.00	$0.00	$0.00			$17.82	$23.73
2nd Year	80.20	$15.80	$4.85	$1.00	$0.15	$0.00	$0.00	$0.00			$21.80	$29.70

Special Calculation Note : No special calculations for this skilled craft wage rate are required at this time.

Ratio :

1 Journeymen to 1 Trainee

Jurisdiction (* denotes special jurisdictional note) :

ADAMS, ALLEN, ASHLAND, ASHTABULA, ATHENS, AUGLAIZE, BELMONT, BROWN, BUTLER, CARROLL, CHAMPAIGN, CLARK, CLERMONT, CLINTON, COLUMBIANA, COSHOCTON, CRAWFORD, CUYAHOGA, DARKE, DEFIANCE, DELAWARE, ERIE, FAIRFIELD, FAYETTE, FRANKLIN, FULTON, GALLIA, GEAUGA, GREENE, GUERNSEY, HAMILTON, HANCOCK, HARDIN, HARRISON, HENRY, HIGHLAND, HOCKING, HOLMES, HURON, JACKSON, JEFFERSON, KNOX, LAKE, LAWRENCE, LICKING, LOGAN, LORAIN, LUCAS, MADISON,

MAHONING, MARION, MEDINA, MEIGS, MERCER, MIAMI, MONROE, MONTGOMERY, MORGAN, MORROW, MUSKINGUM, NOBLE, OTTAWA, PAULDING, PERRY, PICKAWAY, PIKE, PORTAGE, PREBLE, PUTNAM, RICHLAND, ROSS, SANDUSKY, SCIOTO, SENECA, SHELBY, STARK, SUMMIT, TRUMBULL, TUSCARAWAS, UNION, VAN WERT, VINTON, WARREN, WASHINGTON, WAYNE, WILLIAMS, WOOD, WYANDOT

Special Jurisdictional Note : Industrial Dock and Door is the installation of overhead doors, roll up doors and dock leveling equipment

Details :
10/27/10 New Contract jc

Prevailing Wage Rate
Skilled Crafts

Name of Union: Carpenter NE Insulation C

Change # : LCN02-2012fbLocNEC

Craft : Carpenter Effective Date : 09/26/2012 Last Posted : 09/26/2012

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Carpenter Insulation	$20.31		$6.45	$4.69	$0.45	$0.00	$0.34	$0.00	$0.00	$0.00	$32.24	$42.40
Apprentice	Percent											
1st 3 months	50.00	$10.16	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$10.16	$15.23
2nd 3 months	50.00	$10.16	$6.45	$0.00	$0.45	$0.00	$0.00	$0.00	$0.00	$0.00	$17.05	$22.13
2nd 6 months	50.00	$10.16	$6.45	$0.00	$0.45	$0.00	$0.00	$0.00	$0.00	$0.00	$17.05	$22.13
3rd 6 months	55.00	$11.17	$6.45	$0.00	$0.45	$0.00	$0.00	$0.00	$0.00	$0.00	$18.07	$23.66
4th 6 months	60.00	$12.19	$6.45	$0.00	$0.45	$0.00	$0.00	$0.00	$0.00	$0.00	$19.09	$25.18
5th 6 months	70.00	$14.22	$6.45	$3.28	$0.45	$0.00	$0.24	$0.00	$0.00	$0.00	$24.64	$31.75
6th 6 months	75.00	$15.23	$6.45	$3.52	$0.45	$0.00	$0.26	$0.00	$0.00	$0.00	$25.91	$33.53
7th 6 months	80.00	$16.25	$6.45	$3.75	$0.45	$0.00	$0.27	$0.00	$0.00	$0.00	$27.17	$35.29
8th 6 months	85.00	$17.26	$6.45	$3.99	$0.45	$0.00	$0.29	$0.00	$0.00	$0.00	$28.44	$37.08

Special Calculation Note : No special calculations for this skilled craft wage rate are required at this time.

Ratio :

Jurisdiction (* denotes special jurisdictional note) :

2 Journeymen to 1 Apprentice CARROLL, STARK, TUSCARAWAS, WAYNE

Special Jurisdictional Note :

Details :

Prevailing Wage Rate
Skilled Crafts

Name of Union: Carpenter Pile Driver Local 1871 NE District O

Change # : LCN02-2012fbLoc1871O

Craft : Carpenter Effective Date : 09/26/2012 Last Posted : 09/26/2012

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Carpenter Pile Driver	$24.85		$6.45	$4.42	$0.45	$0.00	$1.62	$0.00	$0.00	$0.00	$37.79	$50.22
Diver	$37.28		$6.45	$4.42	$0.45	$0.00	$1.62	$0.00	$0.00	$0.00	$50.22	$68.86
Certified Welder	$25.90		$6.45	$4.42	$0.45	$0.00	$1.62	$0.00	$0.00	$0.00	$38.84	$51.79
Apprentice	Percent											
1st 6 months	55.00	$13.67	$6.45	$4.42	$0.45	$0.00	$1.62	$0.00	$0.00	$0.00	$26.61	$33.44
2nd 6 months	58.50	$14.54	$6.45	$4.42	$0.45	$0.00	$1.62	$0.00	$0.00	$0.00	$27.48	$34.75
3rd 6 months	62.00	$15.41	$6.45	$4.42	$0.45	$0.00	$1.62	$0.00	$0.00	$0.00	$28.35	$36.05
4th 6 months	65.50	$16.28	$6.45	$4.42	$0.45	$0.00	$1.62	$0.00	$0.00	$0.00	$29.22	$37.36
5th 6 months	69.00	$17.15	$6.45	$4.42	$0.45	$0.00	$1.62	$0.00	$0.00	$0.00	$30.09	$38.66
6th 6 months	72.50	$18.02	$6.45	$4.42	$0.45	$0.00	$1.62	$0.00	$0.00	$0.00	$30.96	$39.96
7th 6 months	76.00	$18.89	$6.45	$4.42	$0.45	$0.00	$1.62	$0.00	$0.00	$0.00	$31.83	$41.27
8th 6 months	80.00	$19.88	$6.45	$4.42	$0.45	$0.00	$1.62	$0.00	$0.00	$0.00	$32.82	$42.76

Special Calculation Note : No special calculations for this skilled craft wage rate are required at this time.

Ratio : **Jurisdiction (* denotes special**

4 Journeymen to 1 Apprentice

jurisdictional note) :
STARK, WAYNE, CARROLL, TUSCARAWAS

Special Jurisdictional Note :

Details :
If certain projects warrant a larger percentage of apprentices, it will be agreed to increase the ratio of apprentices to journeymen, but Not to exceed (1) Apprentice to (2) Journeymen.
Employees working with creosoted, chemically treated or toxic materials,shall receive $.50 above regular rate.

Prevailing Wage Rate
Skilled Crafts

Name of Union: Carpenter Statewide Office Systems

Change # : LCR02-2010jcJurSTWIDEOfficeSystems

Craft : Carpenter Effective Date : 07/28/2010 Last Posted : 07/28/2010

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Carpenter Installers	$16.00		$5.47	$1.00	$0.08	$0.00	$0.00	$0.00			$22.55	$30.55
Helper	$9.50		$5.47	$0.00	$0.08	$0.00	$0.00	$0.00			$15.05	$19.80
Installer Trainee	Percent											
1st 6 months	59.40	$9.50	$5.47	$0.00	$0.08	$0.00	$0.00	$0.00			$15.05	$19.81
2nd 6 Months	62.00	$9.92	$5.47	$0.00	$0.08	$0.00	$0.00	$0.00			$15.47	$20.43
3rd 6 Months	65.00	$10.40	$5.47	$0.00	$0.08	$0.00	$0.00	$0.00			$15.95	$21.15
4th 6 Months	67.95	$10.87	$5.47	$0.79	$0.08	$0.00	$0.00	$0.00			$17.21	$22.65
5th 6 months	70.95	$11.35	$5.47	$0.83	$0.08	$0.00	$0.00	$0.00			$17.73	$23.41
6th 6 Months	73.90	$11.82	$5.47	$0.86	$0.08	$0.00	$0.00	$0.00			$18.23	$24.15
7th 6 Months	76.90	$12.30	$5.47	$0.90	$0.08	$0.00	$0.00	$0.00			$18.75	$24.91
8th 6 Months	79.85	$12.78	$5.47	$0.93	$0.08	$0.00	$0.00	$0.00			$19.26	$25.64
9th 6 months	82.80	$13.25	$5.47	$1.00	$0.08	$0.00	$0.00	$0.00			$19.80	$26.42

Special Calculation Note : Helper H&W after 90 days probationary period

Ratio : **Jurisdiction (* denotes special**

1 Installer to 1 Trainee or 1 Helper

jurisdictional note) :
ADAMS, ALLEN, ASHLAND, ASHTABULA, ATHENS, AUGLAIZE, BELMONT, BROWN, BUTLER, CARROLL, CHAMPAIGN, CLARK, CLERMONT, CLINTON, COLUMBIANA, COSHOCTON, CRAWFORD, CUYAHOGA, DARKE, DEFIANCE, DELAWARE, ERIE, FAIRFIELD, FAYETTE, FRANKLIN, FULTON, GALLIA, GEAUGA, GREENE, GUERNSEY, HAMILTON, HANCOCK, HARDIN, HARRISON, HENRY, HIGHLAND, HOCKING, HOLMES, HURON, JACKSON, JEFFERSON, KNOX, LAKE, LAWRENCE, LICKING, LOGAN, LORAIN, LUCAS, MADISON, MAHONING, MARION, MEDINA, MEIGS, MERCER, MIAMI, MONROE, MONTGOMERY, MORGAN, MORROW, MUSKINGUM, NOBLE, OTTAWA, PAULDING, PERRY, PICKAWAY, PIKE, PORTAGE, PREBLE, PUTNAM, RICHLAND, ROSS, SANDUSKY, SCIOTO, SENECA, SHELBY, STARK, SUMMIT, TRUMBULL, TUSCARAWAS, UNION, VAN WERT, VINTON, WARREN, WASHINGTON, WAYNE, WILLIAMS, WOOD, WYANDOT

Special Jurisdictional Note :

Details :
Office systems is defined as modular systems with demountable units such as desks, partitions and shelving. All work in connection with the assembly, reconfiguration and repairof all work in the office system field.
INSTALLER: is defined as a qualified office systems mechanic capable of laying out, estimating and installing various office system manufactured products.
INSTALL TRAINEE: is defined as a person training in the estimating, layout and installation in all facets of the office systems industry. An installer trainee will work to assist an installer or lead installer in all installations. He is NOT permitted to work without the assistance of lead installer
INSTALL HELPER: is defined as a person who assists in the delivery,staging and clean up of related office system work. He is NOT to be involved with the installation or layout of work related to office systems.
Receiving,unloading,unpacking,& removal of rubbish shall be done by install helpers.

Prevailing Wage Rate
Skilled Crafts

Name of Union: Carpenter & Floorlayer NE District C

Change # : LCN02-2012fbLocNEdistCantonC

Craft : Carpenter Effective Date : 09/26/2012 Last Posted : 09/26/2012

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Carpenter	$25.38		$6.45	$4.69	$0.45	$0.00	$0.34	$0.00	$0.00	$0.00	$37.31	$50.00
Floorlayer	$25.38		$6.45	$4.69	$0.47	$0.00	$0.34	$0.00	$0.00	$0.00	$37.33	$50.02
Apprentice	**Percent**											
1st 3 Months	40.00	$10.15	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$10.15	$15.23
2nd 3 Months	45.00	$11.42	$6.45	$0.00	$0.45	$0.00	$0.00	$0.00	$0.00	$0.00	$18.32	$24.03
2nd 6 Months is 1st year	50.00	$12.69	$6.45	$0.00	$0.45	$0.00	$0.00	$0.00	$0.00	$0.00	$19.59	$25.93
3rd 6 Months	55.00	$13.96	$6.45	$0.00	$0.45	$0.00	$0.00	$0.00	$0.00	$0.00	$20.86	$27.84
4th 6 Months is 2nd year	60.00	$15.23	$6.45	$0.00	$0.45	$0.00	$0.00	$0.00	$0.00	$0.00	$22.13	$29.74
5th 6 Months	70.00	$17.77	$6.45	$3.28	$0.45	$0.00	$0.24	$0.00	$0.00	$0.00	$28.19	$37.07
6th 6 Months is 3rd year	75.01	$19.04	$6.45	$3.52	$0.45	$0.00	$0.26	$0.00	$0.00	$0.00	$29.72	$39.24
7th 6 Months	80.00	$20.30	$6.45	$3.75	$0.45	$0.00	$0.27	$0.00	$0.00	$0.00	$31.22	$41.38
8th 6 Months is 4th year	85.00	$21.57	$6.45	$3.99	$0.45	$0.00	$0.29	$0.00	$0.00	$0.00	$32.75	$43.54

Special Calculation Note : No special calculations for this skilled craft wage rate are required at this time.

Extra $.02 ($.47) is for Training for Floorlayers and Floorlayers Apprentice.

Ratio :

4 Journeymen to 1 Apprentice

Jurisdiction (* denotes special jurisdictional note) :

CARROLL, STARK, TUSCARAWAS, WAYNE

Special Jurisdictional Note :

Details :

Prevailing Wage Rate
Skilled Crafts

Name of Union: Cement Mason Bricklayer Local 97 HevHwy A

Change # : LCN01-2012fbHvyHwy

Craft : Bricklayer Effective Date : 10/10/2012 Last Posted : 10/10/2012

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Cement Mason Bricklayer Sewer Water Treatment A	$27.12		$6.70	$3.88	$0.40	$0.00	$0.00	$0.00	$0.00	$0.00	$38.10	$51.66
Apprentice	Percent											
1st year	50.00	$13.56	$6.70	$3.88	$0.40	$0.00	$0.00	$0.00	$0.00	$0.00	$24.54	$31.32
2nd year	70.00	$18.98	$6.70	$3.88	$0.40	$0.00	$0.00	$0.00	$0.00	$0.00	$29.96	$39.46
3rd year	90.00	$24.41	$6.70	$3.88	$0.40	$0.00	$0.00	$0.00	$0.00	$0.00	$35.39	$47.59

Special Calculation Note : NOT FOR BUILDING CONSTRUCTION.

Ratio :

3 Journeymen to 1 Apprentice
6 Journeymen to 2 Apprentice
9 Journeymen to 2 Apprentice
12 Journeymen to 4 Apprentice
15 Journeymen to 5 Apprentice

Jurisdiction (* denotes special jurisdictional note) :

ADAMS, ALLEN, ASHLAND, ASHTABULA, ATHENS, AUGLAIZE, BELMONT, BROWN, BUTLER, CARROLL, CHAMPAIGN, CLARK, CLERMONT, CLINTON, COLUMBIANA, COSHOCTON, CRAWFORD, CUYAHOGA, DARKE, DEFIANCE, DELAWARE, ERIE, FAIRFIELD, FAYETTE, FRANKLIN, FULTON, GALLIA, GEAUGA, GREENE, GUERNSEY,

HAMILTON, HANCOCK, HARDIN, HARRISON, HENRY, HIGHLAND, HOCKING, HOLMES, HURON, JACKSON, JEFFERSON, KNOX, LAKE, LAWRENCE, LICKING, LOGAN, LORAIN, LUCAS, MADISON, MAHONING, MARION, MEDINA, MEIGS, MERCER, MIAMI, MONROE, MONTGOMERY, MORGAN, MORROW, MUSKINGUM, NOBLE, OTTAWA, PAULDING, PERRY, PICKAWAY, PIKE, PORTAGE, PREBLE, PUTNAM, RICHLAND, ROSS, SANDUSKY, SCIOTO, SENECA, SHELBY, STARK, SUMMIT, TRUMBULL, TUSCARAWAS, UNION, VAN WERT, VINTON, WARREN, WASHINGTON, WAYNE

Special Jurisdictional Note :

Details :

(A) Highway Construction, Sewer, Waterworks And Utility Construction, Industrial & Building Site Heavy Construction, Airport Construction Or Railroad Construction Work.
(B) Power Plant, Tunnels, Amusement Park, Athletic Stadium Site Work ,Pollution Control,Sewer Plant, Waste Plant, & Water Treatment Facilities, Construction.

Prevailing Wage Rate
Skilled Crafts

Name of Union: Cement Mason Bricklayer Local 97 HevHwy B

Change # : LCN01-2012fbHvyHwy

Craft : Bricklayer Effective Date : 10/10/2012 Last Posted : 10/10/2012

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Cement Mason Bricklayer Power Plants Tunnels Amusement Parks B	$28.12		$6.70	$3.88	$0.40	$0.00	$0.00	$0.00	$0.00	$0.00	$39.10	$53.16
Apprentice	Percent											
1st year	50.00	$14.06	$6.70	$3.88	$0.40	$0.00	$0.00	$0.00	$0.00	$0.00	$25.04	$32.07
2nd year	70.00	$19.68	$6.70	$3.88	$0.40	$0.00	$0.00	$0.00	$0.00	$0.00	$30.66	$40.51
3rd year	90.00	$25.31	$6.70	$3.88	$0.40	$0.00	$0.00	$0.00	$0.00	$0.00	$36.29	$48.94

Special Calculation Note : NOT FOR BUILDING CONSTRUCTION.

Ratio :

3 Journeymen to 1 Apprentice
6 Journeymen to 2 Apprentice
9 Journeymen to 2 Apprentice
12 Journeymen to 4 Apprentice
15 Journeymen to 5 Apprentice

Jurisdiction (* denotes special jurisdictional note) :

ADAMS, ALLEN, ASHLAND, ASHTABULA, ATHENS, AUGLAIZE, BELMONT, BROWN, BUTLER, CARROLL, CHAMPAIGN, CLARK, CLERMONT, CLINTON, COLUMBIANA, COSHOCTON, CRAWFORD, CUYAHOGA, DARKE, DEFIANCE, DELAWARE, ERIE, FAIRFIELD, FAYETTE, FRANKLIN, FULTON, GALLIA, GEAUGA, GREENE, GUERNSEY,

HAMILTON, HANCOCK, HARDIN, HARRISON, HENRY, HIGHLAND, HOCKING, HOLMES, HURON, JACKSON, JEFFERSON, KNOX, LAKE, LAWRENCE, LICKING, LOGAN, LORAIN, LUCAS, MADISON, MAHONING, MARION, MEDINA, MEIGS, MERCER, MIAMI, MONROE, MONTGOMERY, MORGAN, MORROW, MUSKINGUM, NOBLE, OTTAWA, PAULDING, PERRY, PICKAWAY, PIKE, PORTAGE, PREBLE, PUTNAM, RICHLAND, ROSS, SANDUSKY, SCIOTO, SENECA, SHELBY, STARK, SUMMIT, TRUMBULL, TUSCARAWAS, UNION, VAN WERT, VINTON, WARREN, WASHINGTON, WAYNE

Special Jurisdictional Note :

Details :

(A) Highway Construction, Sewer, Waterworks And Utility Construction, Industrial & Building Site Heavy Construction, Airport Construction Or Railroad Construction Work.
(B) Power Plant, Tunnels, Amusement Park, Athletic Stadium Site Work ,Pollution Control,Sewer Plant, Waste Plant, & Water Treatment Facilities, Construction.

Prevailing Wage Rate
Skilled Crafts

Name of Union: Cement Mason Local 132 HvyHwy District II (A)

Change # : LCN02-2012fbHvyHwy

Craft : Cement Mason Effective Date : 10/03/2012 Last Posted : 10/03/2012

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Cement Mason (A)	$26.08		$6.44	$4.50	$0.45	$0.00	$2.10	$0.00	$0.00	$0.00	$39.57	$52.61
Apprentice	Percent											
1st Year	60.00	$15.65	$6.44	$4.50	$0.45	$0.00	$2.10	$0.00	$0.00	$0.00	$29.14	$36.96
2nd Year	75.00	$19.56	$6.44	$4.50	$0.45	$0.00	$2.10	$0.00	$0.00	$0.00	$33.05	$42.83
3rd Year	90.00	$23.47	$6.44	$4.50	$0.45	$0.00	$2.10	$0.00	$0.00	$0.00	$36.96	$48.70

Special Calculation Note : Work performed in accordance with detail (B) please see Cement Mason HevHwy District 1 (B) wage sheet

Ratio :

2 Journeymen to 1 Apprentice
Company Wide

Jurisdiction (* denotes special jurisdictional note) :
BROWN, BUTLER, CLERMONT, COLUMBIANA, DEFIANCE, ERIE, HAMILTON, HIGHLAND, HURON, LORAIN, MAHONING, MEDINA, OTTAWA, PAULDING, PORTAGE, SANDUSKY, SENECA, STARK, SUMMIT, TRUMBULL, WARREN, WILLIAMS

Special Jurisdictional Note :

Details :
(A) Highway Construction, Sewer, Waterworks And Utility Construction, Industrial & Building Site, Heavy Construction, Airport Construction Or Railroad Construction Work.

(B) Power Plant, Tunnels, Amusement Park, Athletic Stadium Site Work ,Pollution Control,Sewer Plant, Waste Plant, & Water Treatment Facilities, Construction.

Prevailing Wage Rate
Skilled Crafts

Name of Union: Cement Mason Local 132 HvyHwy District II (B)

Change # : LCN02-2012fbHvyHwy

Craft : Cement Mason Effective Date : 10/03/2012 Last Posted : 10/03/2012

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Cement Mason (B)	$26.95		$6.44	$4.50	$0.45	$0.00	$2.10	$0.00	$0.00	$0.00	$40.44	$53.92
Apprentice	Percent											
1st Year	60.00	$16.17	$6.44	$4.50	$0.45	$0.00	$2.10	$0.00	$0.00	$0.00	$29.66	$37.75
2nd Year	75.00	$20.21	$6.44	$4.50	$0.45	$0.00	$2.10	$0.00	$0.00	$0.00	$33.70	$43.81
3rd Year	90.00	$24.25	$6.44	$4.50	$0.45	$0.00	$2.10	$0.00	$0.00	$0.00	$37.75	$49.87

Special Calculation Note : Work performed in accordance with detail (A) please see Cement Mason HevHwy District 1 (A) wage sheet

Ratio :

2 Journeymen to 1 Apprentice
Company Wide

Jurisdiction (* denotes special jurisdictional note) :
BROWN, BUTLER, CLERMONT, COLUMBIANA, DEFIANCE, ERIE, HAMILTON, HIGHLAND, HURON, LORAIN, MAHONING, MEDINA, OTTAWA, PAULDING, PORTAGE, SANDUSKY, SENECA, STARK, SUMMIT, TRUMBULL, WARREN, WILLIAMS

Special Jurisdictional Note :

Details :
(A) Highway Construction, Sewer, Waterworks And Utility Construction, Industrial & Building Site, Heavy Construction, Airport Construction Or Railroad Construction Work.

(B) Power Plant, Tunnels, Amusement Park, Athletic Stadium Site Work ,Pollution Control,Sewer Plant, Waste Plant, & Water Treatment Facilities, Construction.

Prevailing Wage Rate
Skilled Crafts

Name of Union: Cement Mason & Plasterer Local 109

Change # : LCN01-2012jcLoc109

Craft : Cement Effective Date : 01/19/2012 Last Posted : 01/19/2012

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Cement Mason	$27.04		$6.05	$4.00	$0.00	$0.00	$3.50	$0.00	$0.00	$0.00	$40.59	$54.11
Plasterer	$27.18		$6.25	$4.00	$0.35	$0.00	$3.25	$0.00	$0.00	$0.00	$41.03	$54.62
Apprentice Cement Mason	Percent											
1st year	60.00	$16.22	$6.05	$4.00	$0.00	$0.00	$3.50	$0.00	$0.00	$0.00	$29.77	$37.89
2nd year	75.00	$20.28	$6.05	$4.00	$0.00	$0.00	$3.50	$0.00	$0.00	$0.00	$33.83	$43.97
3rd year	90.00	$24.34	$6.05	$4.00	$0.00	$0.00	$3.50	$0.00	$0.00	$0.00	$37.89	$50.05
Plasterer Apprentice												
1st year	60.17	$16.27	$6.25	$4.00	$0.35	$0.00	$3.25	$0.00	$0.00	$0.00	$30.12	$38.25
2nd year	70.25	$19.00	$6.25	$4.00	$0.35	$0.00	$3.25	$0.00	$0.00	$0.00	$32.85	$42.34
3rd year	80.32	$21.72	$6.25	$4.00	$0.35	$0.00	$3.25	$0.00	$0.00	$0.00	$35.57	$46.43
4th year	90.43	$24.45	$6.25	$4.00	$0.35	$0.00	$3.25	$0.00	$0.00	$0.00	$38.30	$50.53

Special Calculation Note : No special calculations for this skilled craft wage rate are required at this time.

Ratio :

1 Journeymen to 1 Apprentice
5 Journeymen to 2 Apprentice

Jurisdiction (* denotes special jurisdictional note) :

CARROLL, HOLMES, MEDINA, PORTAGE, STARK, SUMMIT, TUSCARAWAS, WAYNE

Special Jurisdictional Note :

Details :

Finishers when applying colorshake shall be paid an additional $2.00 per DAY.
Swing Scaffolds up to 50 feet shall be paid $0.25 above the Journeymen rate.
Swing Scaffolds over 50 feet shall be paid $0.35 above the Journeymen rate.

Prevailing Wage Rate
Skilled Crafts

Name of Union: Electrical Local 540 Inside

Change # : LCN01-2013fbLoc540in

Craft : Electrical Effective Date : 01/09/2013 Last Posted : 01/09/2013

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Electrician	$28.35		$5.70	$7.71	$0.87	$2.13	$2.60	$0.91	$0.00	$0.00	$48.27	$62.45
Apprentice	Percent											
1st 1000 hrs	40.00	$11.34	$5.70	$0.00	$0.44	$0.00	$0.00	$0.34	$0.00	$0.00	$17.82	$23.49
2nd 1000 hrs	45.00	$12.76	$5.70	$0.00	$0.47	$0.00	$0.00	$0.38	$0.00	$0.00	$19.31	$25.69
3rd 1500 hrs	50.00	$14.18	$5.70	$1.54	$0.51	$0.43	$0.52	$0.44	$0.00	$0.00	$23.32	$30.40
4th 1500 hrs	60.00	$17.01	$5.70	$3.08	$0.57	$0.51	$1.04	$0.53	$0.00	$0.00	$28.44	$36.95
5th 1500 hrs	70.01	$19.85	$5.70	$4.63	$0.64	$0.60	$1.56	$0.61	$0.00	$0.00	$33.59	$43.51
6th 1500 hrs	80.00	$22.68	$5.70	$6.17	$0.71	$0.68	$2.08	$0.70	$0.00	$0.00	$38.72	$50.06

Special Calculation Note : OTHER = (NEBF) National Electrical Benefit Fund. Vacation contribution is equal to 7.5% of the gross weekly wages.

Ratio :

The first person assigned to any job site shall be a Journeyman Wireman. Ratio thereafter:

1-3 Journeymen to 2 Apprentices
4 to 6 Journeymen up to 4 Apprentices

Jurisdiction (* denotes special jurisdictional note) :

CARROLL*, COLUMBIANA*, HOLMES, MAHONING*, STARK, TUSCARAWAS*, WAYNE*

7 to 9 Journeymen up to 6 Apprentices

Special Jurisdictional Note : Carroll County: North half including; Fox, Harrison, Rose and Washington Townships.
Columbiana County: Knox Township only.
Mahoning County: Smith Township only.
Tuscarawas County: That portion North of Auburn, Clay, Rush and York Townships.
Wayne County: That portion south of Baughman, Chester, Green, Wayne and Wooster Townships.

Details :

Prevailing Wage Rate
Skilled Crafts

Name of Union: Electrical Local 540 Inside Lt Commercial Northern

Change # : LCN01-2012jcLoc540in

Craft : Electrical Effective Date : 02/01/2012 Last Posted : 02/01/2012

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Electrician	$27.60		$5.70	$7.71	$0.77	$2.07	$2.60	$0.89	$0.00	$0.00	$47.34	$61.14
Construction Electrician 3	$22.50		$4.15	$0.68	$0.81	$0.00	$0.68	$0.00	$0.00	$0.10	$28.92	$40.17
Construction Electrician 2	$17.68		$4.15	$0.53	$0.81	$0.00	$0.53	$0.00	$0.00	$0.10	$23.80	$32.64
Construction Electrician 1	$16.07		$4.15	$0.48	$0.81	$0.00	$0.48	$0.00	$0.00	$0.10	$22.09	$30.13
Construction Wireman 4	$14.46		$4.15	$0.43	$0.81	$0.00	$0.43	$0.00	$0.00	$0.10	$20.38	$27.61
Construction Wireman 3	$12.86		$4.15	$0.39	$0.81	$0.00	$0.39	$0.00	$0.00	$0.10	$18.70	$25.13
Construction Wireman 2	$11.25		$4.15	$0.34	$0.81	$0.00	$0.34	$0.00	$0.00	$0.10	$16.99	$22.61
Construction Wireman 1	$11.25		$4.15	$0.34	$0.81	$0.00	$0.34	$0.00	$0.00	$0.10	$16.99	$22.61
Apprentice	Percent											
1st 1000 hrs	40.00	$11.04	$5.70	$0.00	$0.35	$0.00	$0.00	$0.33	$0.00	$0.00	$17.42	$22.94
2nd 1000 hrs	45.00	$12.42	$5.70	$0.00	$0.38	$0.00	$0.00	$0.37	$0.00	$0.00	$18.87	$25.08
3rd 1500 hrs	50.00	$13.80	$5.70	$1.54	$0.42	$0.41	$0.52	$0.43	$0.00	$0.00	$22.82	$29.72
4th 1500 hrs	60.00	$16.56	$5.70	$3.08	$0.48	$0.50	$1.04	$0.51	$0.00	$0.00	$27.87	$36.15
5th 1500 hrs	70.00	$19.32	$5.70	$4.63	$0.55	$0.58	$1.56	$0.60	$0.00	$0.00	$32.94	$42.60
6th 1500 hrs	80.00	$22.08	$5.70	$6.17	$0.61	$0.66	$2.08	$0.68	$0.00	$0.00	$37.98	$49.02

Special Calculation Note : OTHER = (NEBF) National Electrical Benefit Fund. Vacation contribution is equal to 7.5% of the gross weekly wages.

Ratio :

1 to 3 Journeymen to 2 Apprentices
4 to 6 Journeymen up to 4 Apprentices
7 to 9 Journeymen up to 6 Apprentices

Construction Electrician and Construction Wireman Ratio
There shall be a minimum ratio of one inside Journeyman Wireman to every (4) employees of different classifications per jobsite. An Inside Journeyman Wireman is required on the project as the fifth (5th) worker or when apprentices are used.

Jurisdiction (* denotes special jurisdictional note) :
CARROLL*, COLUMBIANA*, HOLMES, MAHONING*, STARK, TUSCARAWAS*, WAYNE*

Special Jurisdictional Note : Carroll County: North half including; Fox, Harrison, Rose and Washington Townships.
Columbiana County: Knox Township only.
Mahoning County: Smith Township only.
Tuscarawas County: That portion North of Auburn, Clay, Rush and York Townships.
Wayne County: That portion south of Baughman, Chester, Green, Wayne and Wooster Townships.

The scope of work for the light commercial agreement shall apply to the following small medical clinics, stand-alone doctor and dentist offices with up to 600 amp service (not attached to a hospital), gas stations/convenience stores, fast food restaurants and franchised chain restaurants including independent bars and taverns, places of worship, funeral homes, nursing homes, assisted living facilities and day-care facilities under 15,000 sq ft, small office, retail/wholesale facilities under 15,000 sq ft with less than 10 units attached, storage units, car washes, express hotels and motels (4 stories or less) without conference or restaurants facilities, residential units (subject to Davis Bacon Rates) small stand-alone manufacturing facilities when free standing and not part of a larger facility (less than 15,000 sq ft) solar projects (500 panels or less) unless other wise covered under this agreement, lighting retrofits (when not associated with remodels involving branch re-circuiting) Lighting retrofits shall be defined as the changing of lamps and ballasts in existing light fixtures and shall also include the one for one replacement of existing fixtures.

Details :

Prevailing Wage Rate
Skilled Crafts

Name of Union: Electrical Local 540 Voice Data Video

Change # : LCN01-2013fbLoc540VDV

Craft : Voice Data Video Effective Date : 01/09/2013 Last Posted : 01/09/2013

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Electrical Installer Technician	$19.15		$5.70	$3.49	$0.46	$1.26	$0.81	$0.61	$0.00	$0.00	$31.48	$41.06
Cable Puller	$9.58		$5.70	$3.49	$0.23	$0.63	$0.71	$0.31	$0.00	$0.00	$20.65	$25.44
Apprentice	**Percent**											
1st period	55.00	$10.53	$5.70	$0.00	$0.25	$0.69	$0.00	$0.34	$0.00	$0.00	$17.51	$22.78
2nd period	65.00	$12.45	$5.70	$0.00	$0.30	$0.82	$0.00	$0.40	$0.00	$0.00	$19.67	$25.89
3rd period	75.00	$14.36	$5.70	$3.49	$0.34	$0.95	$0.71	$0.46	$0.00	$0.00	$26.01	$33.19
4th period	80.00	$15.32	$5.70	$3.49	$0.37	$1.01	$0.71	$0.49	$0.00	$0.00	$27.09	$34.75
5th period	85.02	$16.28	$5.70	$3.49	$0.39	$1.07	$0.71	$0.52	$0.00	$0.00	$28.16	$36.30
6th period	90.03	$17.24	$5.70	$3.49	$0.41	$1.14	$0.71	$0.55	$0.00	$0.00	$29.24	$37.86

Special Calculation Note : OTHER = (NEBF) National Electrical Benefit Fund.

VACATION PAY - Based on time worked within the industry.The employer agrees to contribute a sum equal to an additional 4.3% of the hourly rate during the first year of employment. After an employee works for a period of one year such employee shall be paid 6.4% of the hourly rate. After two or more years the employee shall be paid 6.6% of hourly rate.

Ratio :

Jurisdiction (* denotes special jurisdictional note) :

1-2 Journeyman to 0 Apprentice
3-4 Journeyman to 1 Apprentice
5-7 Journeyman to 2 Apprentice

CARROLL*, COLUMBIANA*, HOLMES, MAHONING*, STARK, TUSCARAWAS*, WAYNE*

** Exception - When fire alarm falls within the scope of this addendum, Cable Pullers can be used to aid in test and be the 2nd Teledata employee on the job

Special Jurisdictional Note : Carroll County includes the following townships: North half including Fox, Harrison, Rose and Washington. Tuscarawas County includes the following townships: The portion North of Auburn, Clay, Rush and York. Wayne County includes the following townships: The portion South of Baughman, Chester, Green, and Wayne. Columbiana County includes Knox township. Mahoning County includes Smith township.

Details :
CABLE PULLERS - are for the installation of cable from one termination point to another.

The following work is EXCLUDED from the Teledata Technician work scope:

* - Installation of computer systems in industrial applications such as assembly lines, robotics, computer
controller manufacturing systems.
* - Installation of conduit and/ or raceways shall be installed by Inside Wireman . On sites where there is
no Inside Wireman employed, the Teledata Technician may install raceway, or conduit not greater than 10 feet.
* - Fire Alarm work on all new construction sites or wherever the fire alarm system is installed in conduit.
* - All HVAC control work.

Prevailing Wage Rate
Skilled Crafts

Name of Union: Electrical Local 71 High Tension Pipe Type Cable

Change # : LCN01-2013fbLoc7

Craft : Lineman Effective Date : 01/16/2013 Last Posted : 01/16/2013

	BHR	Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
		H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification											
Electrical Lineman	$37.30	$5.00	$1.12	$0.37	$0.00	$7.46	$0.15	$0.00	$0.00	$51.40	$70.05
Certified Lineman Welder	$37.30	$5.00	$1.12	$0.37	$0.00	$7.46	$0.15	$0.00	$0.00	$51.40	$70.05
Certified Cable Splicer	$37.30	$5.00	$1.12	$0.37	$0.00	$7.46	$0.15	$0.00	$0.00	$51.40	$70.05
Operator A	$33.53	$5.00	$1.01	$0.34	$0.00	$6.71	$0.15	$0.00	$0.00	$46.74	$63.51
Operator B	$29.77	$5.00	$0.89	$0.30	$0.00	$5.95	$0.15	$0.00	$0.00	$42.06	$56.95
Operator C	$24.13	$5.00	$0.72	$0.24	$0.00	$4.83	$0.15	$0.00	$0.00	$35.07	$47.14
Groundman 0-12 months Exp	$18.65	$5.00	$0.56	$0.19	$0.00	$3.73	$0.15	$0.00	$0.00	$28.28	$37.60
Groundman 0-12 months Exp w/CDL	$20.51	$5.00	$0.62	$0.21	$0.00	$4.10	$0.15	$0.00	$0.00	$30.59	$40.85
Groundman 1 yr or more	$20.51	$5.00	$0.62	$0.21	$0.00	$4.10	$0.15	$0.00	$0.00	$30.59	$40.85
Groundman 1 yr or more w/CDL	$24.25	$5.00	$0.73	$0.24	$0.00	$4.85	$0.15	$0.00	$0.00	$35.22	$47.35
Equipment Mechanic A	$29.77	$5.00	$0.89	$0.30	$0.00	$5.95	$0.15	$0.00	$0.00	$42.06	$56.95
Equipment Mechanic B	$26.95	$5.00	$0.81	$0.27	$0.00	$5.39	$0.15	$0.00	$0.00	$38.57	$52.05

Equipment Mechanic C	$24.13		$5.00	$0.72	$0.24	$0.00	$4.83	$0.15	$0.00	$0.00	$35.07	$47.14
X-Ray Technician	$37.30		$5.00	$1.12	$0.37	$0.00	$7.46	$0.15	$0.00	$0.00	$51.40	$70.05
Apprentice	**Percent**											
1st 1000 hrs	60.00	$22.38	$5.00	$0.67	$0.22	$0.00	$4.48	$0.15	$0.00	$0.00	$32.90	$44.09
2nd 1000 hrs	65.01	$24.25	$5.00	$0.73	$0.24	$0.00	$4.85	$0.15	$0.00	$0.00	$35.22	$47.34
3rd 1000 hrs	70.00	$26.11	$5.00	$0.78	$0.26	$0.00	$5.22	$0.15	$0.00	$0.00	$37.52	$50.57
4th 1000 hrs	75.01	$27.98	$5.00	$0.84	$0.28	$0.00	$5.60	$0.15	$0.00	$0.00	$39.85	$53.84
5th 1000 hrs	80.00	$29.84	$5.00	$0.90	$0.30	$0.00	$5.97	$0.15	$0.00	$0.00	$42.16	$57.08
6th 1000 hrs	85.01	$31.71	$5.00	$0.95	$0.32	$0.00	$6.34	$0.15	$0.00	$0.00	$44.47	$60.32
7th 1000 hrs	90.00	$33.57	$5.00	$1.01	$0.34	$0.00	$6.71	$0.15	$0.00	$0.00	$46.78	$63.57

Special Calculation Note :

Operator "A"
John Henry Rock Drill, D-6 (or equivalent) and above, Trackhoe Digger, (320 Track excavator), Cranes (greater then 25 tons and less than 45 tons).

Operator "B"
Cranes (greater than 6 tons and up to 25 tons), Backhoes, Road Tractor, Dozer up to D-5, Pressure Digger- wheeled or tracked, all Tension wire Stringing equipment.

Operator "C"
Trench, Backhoe, Riding type vibratory Compactor, Ground Rod Driver, Boom Truck (6 ton & below), Skid Steer Loaders, Material Handler.

*All Operators of cranes 45 ton or larger shall be paid the journeyman rate of pay. $0.15 is for Health Retirement Account.

Ratio :

1 Journeyman to 1 Apprentice

Jurisdiction (* denotes special jurisdictional note) :

ADAMS, ASHLAND, ASHTABULA, ATHENS, AUGLAIZE, BELMONT, BROWN, BUTLER, CARROLL, CHAMPAIGN, CLARK, CLERMONT, CLINTON, COLUMBIANA, COSHOCTON, CRAWFORD, CUYAHOGA, DARKE, DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, GALLIA, GEAUGA, GREENE, GUERNSEY, HAMILTON, HARRISON,

HIGHLAND, HOCKING, HOLMES, JACKSON, JEFFERSON, KNOX, LAKE, LAWRENCE, LICKING, LOGAN, LORAIN, MADISON, MAHONING, MARION, MEDINA, MEIGS, MERCER, MIAMI, MONROE, MONTGOMERY, MORGAN, MORROW, MUSKINGUM, NOBLE, PERRY, PICKAWAY, PIKE, PORTAGE, PREBLE, RICHLAND, ROSS, SCIOTO, SHELBY, STARK, SUMMIT, TRUMBULL, TUSCARAWAS, UNION, VINTON, WARREN, WASHINGTON, WAYNE

Special Jurisdictional Note :

Details :

Heli - Arc Welding will be paid $.30 above Journeyman rate. Additional compensation of 10% over the Journeyman Lineman and Journeyman Technician for performing work on structures outside of buildings such as water towers, smoke stacks, radio and television towers, more than 75' above the ground.

Prevailing Wage Rate
Skilled Crafts

Name of Union: Electrical Local 71 Outside Utility Power

Change # : LCN01-2013fbLoc7

Craft : Lineman Effective Date : 01/16/2013 Last Posted : 01/16/2013

	BHR	Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
		H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification											
Electrical Lineman	$35.38	$5.00	$1.06	$0.35	$0.00	$7.08	$0.15	$0.00	$0.00	$49.02	$66.71
Substation Technician	$35.38	$5.00	$1.06	$0.35	$0.00	$7.08	$0.15	$0.00	$0.00	$49.02	$66.71
Cable Splicer	$37.02	$5.00	$1.11	$0.37	$0.00	$7.40	$0.15	$0.00	$0.00	$51.05	$69.56
Operator A	$31.82	$5.00	$0.95	$0.32	$0.00	$6.36	$0.15	$0.00	$0.00	$44.60	$60.51
Operator B	$28.22	$5.00	$0.85	$0.28	$0.00	$5.64	$0.15	$0.00	$0.00	$40.14	$54.25
Operator C	$22.86	$5.00	$0.69	$0.23	$0.00	$4.57	$0.15	$0.00	$0.00	$33.50	$44.93
Groundman 0-12 months Exp	$17.69	$5.00	$0.53	$0.18	$0.00	$3.54	$0.15	$0.00	$0.00	$27.09	$35.94
Groundman 0-12 months Exp w/CDL	$19.46	$5.00	$0.58	$0.19	$0.00	$3.89	$0.15	$0.00	$0.00	$29.27	$39.00
Groundman 1 yr or more	$19.46	$5.00	$0.58	$0.19	$0.00	$3.89	$0.15	$0.00	$0.00	$29.27	$39.00
Groundman 1 yr or more w/CDL	$23.00	$5.00	$0.69	$0.23	$0.00	$4.60	$0.15	$0.00	$0.00	$33.67	$45.17
Equipment Mechanic A	$28.23	$5.00	$0.85	$0.28	$0.00	$5.65	$0.15	$0.00	$0.00	$40.16	$54.28
Equipment Mechanic B	$25.55	$5.00	$0.77	$0.26	$0.00	$5.11	$0.15	$0.00	$0.00	$36.84	$49.62

Equipment Mechanic C	$22.86		$5.00	$0.69	$0.23	$0.00	$4.57	$0.15	$0.00	$0.00	$33.50	$44.93
Line Truck w/uuger	$25.18		$5.00	$0.76	$0.25	$0.00	$5.04	$0.15	$0.00	$0.00	$36.38	$48.97
Apprentice	**Percent**											
1st 1000 hrs	60.00	$21.23	$5.00	$0.63	$0.21	$0.00	$4.25	$0.15	$0.00	$0.00	$31.47	$42.08
2nd 1000 hrs	65.00	$23.00	$5.00	$0.69	$0.23	$0.00	$4.60	$0.15	$0.00	$0.00	$33.67	$45.17
3rd 1000 hrs	70.00	$24.77	$5.00	$0.74	$0.25	$0.00	$4.95	$0.15	$0.00	$0.00	$35.86	$48.24
4th 1000 hrs	75.00	$26.54	$5.00	$0.80	$0.27	$0.00	$5.31	$0.15	$0.00	$0.00	$38.07	$51.33
5th 1000 hrs	80.00	$28.30	$5.00	$0.85	$0.28	$0.00	$5.66	$0.15	$0.00	$0.00	$40.24	$54.40
6th 1000 hrs	85.00	$30.07	$5.00	$0.90	$0.30	$0.00	$6.01	$0.15	$0.00	$0.00	$42.43	$57.47
7th 1000 hrs	90.00	$31.84	$5.00	$0.96	$0.32	$0.00	$6.37	$0.15	$0.00	$0.00	$44.64	$60.56

Special Calculation Note :

Operator "A"
John Henry Rock Drill, D-6 (or equivalent) and above, Trackhoe Digger, (320 Track excavator), Cranes (greater then 25 tons and less than 45 tons).

Operator "B"
Cranes (greater than 6 tons and up to 25 tons), Backhoes, Road Tractor, Dozer up to D-5, Pressure Digger- wheeled or tracked, all Tension wire Stringing equipment.

Operator "C"
Trench, Backhoe, Riding type vibratory Compactor, Ground Rod Driver, Boom Truck (6 ton & below), Skid Steer Loaders, Material Handler.

Ratio :

(1) Journeyman Lineman to (1) Apprentice

Jurisdiction (* denotes special jurisdictional note) :

ADAMS, ASHLAND, ASHTABULA, ATHENS, AUGLAIZE, BELMONT, BROWN, BUTLER, CARROLL, CHAMPAIGN, CLARK, CLERMONT, CLINTON, COLUMBIANA, COSHOCTON, CRAWFORD, CUYAHOGA, DARKE, DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, GALLIA, GEAUGA, GREENE, GUERNSEY, HAMILTON, HARRISON, HIGHLAND, HOCKING, HOLMES, JACKSON, JEFFERSON, KNOX, LAKE, LAWRENCE, LICKING, LOGAN, LORAIN, MADISON,

MAHONING, MARION, MEDINA, MEIGS, MERCER, MIAMI, MONROE, MONTGOMERY, MORGAN, MORROW, MUSKINGUM, NOBLE, PERRY, PICKAWAY, PIKE, PORTAGE, PREBLE, RICHLAND, ROSS, SCIOTO, SHELBY, STARK, SUMMIT, TRUMBULL, TUSCARAWAS, UNION, VINTON, WARREN, WASHINGTON, WAYNE

Special Jurisdictional Note : 0.15 is for Health Retirement Account.

Details :

Heli - Arc Welding will be paid $.30 above Journeyman rate. Additional compensation of 10% over the Journeyman Lineman and Journeyman Technician for performing work on structures outside of buildings such as water towers, smoke stacks, radio and television towers, more than 75' above the ground.

Prevailing Wage Rate
Skilled Crafts

Name of Union: Electrical Local 71 Outside (North Central Ohio)

Change # : LCN01-2013fbLoc71CentralOhio

Craft : Lineman Effective Date : 01/16/2013 Last Posted : 01/16/2013

	BHR	Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
		H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification											
Electrical Lineman	$33.50	$5.00	$1.01	$0.34	$0.00	$5.70	$0.00	$0.00	$0.00	$45.55	$62.30
Traffic Signal & Lighting Journeyman	$32.25	$5.00	$0.97	$0.32	$0.00	$5.48	$0.00	$0.00	$0.00	$44.02	$60.14
Equipment Operator	$30.15	$5.00	$0.90	$0.30	$0.00	$5.13	$0.00	$0.00	$0.00	$41.48	$56.55
Groundman 0-12 months	$18.43	$5.00	$0.55	$0.18	$0.00	$3.13	$0.00	$0.00	$0.00	$27.29	$36.50
Groundman 1 year plus	$21.78	$5.00	$0.65	$0.22	$0.00	$3.70	$0.00	$0.00	$0.00	$31.35	$42.24
Traffic Signal Apprentices											
1st 1,000 hours	$19.35	$5.00	$0.58	$0.19	$0.00	$3.29	$0.00	$0.00	$0.00	$28.41	$38.09
2nd 1,000 hours	$20.96	$5.00	$0.63	$0.21	$0.00	$3.56	$0.00	$0.00	$0.00	$30.36	$40.84
3rd 1,000 hours	$22.58	$5.00	$0.68	$0.23	$0.00	$3.84	$0.00	$0.00	$0.00	$32.33	$43.62
4th 1,000 hours	$24.19	$5.00	$0.73	$0.24	$0.00	$4.11	$0.00	$0.00	$0.00	$34.27	$46.37
5th 1,000 hours	$25.80	$5.00	$0.77	$0.26	$0.00	$4.39	$0.00	$0.00	$0.00	$36.22	$49.12
6th 1,000 hours	$29.03	$5.00	$0.87	$0.29	$0.00	$4.94	$0.00	$0.00	$0.00	$40.13	$54.64
Apprentice Lineman	**Percent**										

1st 1,000 Hours	60.00	$20.10	$5.00	$0.60	$0.20	$0.00	$3.42	$0.00	$0.00	$0.00	$29.32	$39.37
2nd 1,000 Hours	65.00	$21.78	$5.00	$0.65	$0.22	$0.00	$3.70	$0.00	$0.00	$0.00	$31.34	$42.23
3rd 1,000 Hours	70.01	$23.45	$5.00	$0.70	$0.23	$0.00	$3.99	$0.00	$0.00	$0.00	$33.37	$45.10
4th 1,000 Hours	75.01	$25.13	$5.00	$0.75	$0.25	$0.00	$4.27	$0.00	$0.00	$0.00	$35.40	$47.96
5th 1,000 Hours	80.00	$26.80	$5.00	$0.80	$0.27	$0.00	$4.56	$0.00	$0.00	$0.00	$37.43	$50.83
6th 1,000 Hours	85.01	$28.48	$5.00	$0.85	$0.28	$0.00	$4.84	$0.00	$0.00	$0.00	$39.45	$53.69
7th 1,000 Hours	90.00	$30.15	$5.00	$0.90	$0.30	$0.00	$5.13	$0.00	$0.00	$0.00	$41.48	$56.56

Special Calculation Note : Other is National Electrical Benefit Fund (NEBF) and Safety & Education Fund.

Ratio :

1 Journeymen to 1 Apprentice

Jurisdiction (* denotes special jurisdictional note) :

BELMONT, CARROLL, HARRISON, HOLMES, JEFFERSON, MEDINA, PORTAGE, STARK, SUMMIT, WAYNE

Special Jurisdictional Note :

Details :

A groundman when directed shall assist a Journeyman in the performance of his/her work on the ground, including the use of hand tools. A Groundman under no circumstances shall climb poles, towers,ladders, or work from an elevated platform or bucket truck.

Scope of Work: installation and maintenance of highway and street lighting, highway and street sign lighting, electronic message boards and traffic control systems, camera systems, traffic signal work, substation and line construction including overhead and underground projects for private and industrial work as in accordance with the IBEW Constitution. This Agreement includes the operation of all tools and equipment necessary for the installation of the above projects.

Prevailing Wage Rate
Skilled Crafts

Name of Union: Elevator Local 45

Change # : LCN01-2012kpLoc45

Craft : Elevator Effective Date : 04/04/2012 Last Posted : 04/04/2012

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Elevator Mechanic	$41.92		$11.03	$6.96	$0.55	$3.35	$5.00	$0.00	$0.00	$0.00	$68.81	$89.77
Helper	$29.34		$11.03	$6.96	$0.55	$1.76	$5.00	$0.00	$0.00	$0.00	$54.64	$69.31
0-6 months Probation	50.00	$20.96	$11.03	$6.96	$0.55	$1.26	$5.00	$0.00	$0.00	$0.00	$45.76	$56.24
1st year	55.00	$23.06	$11.03	$6.96	$0.55	$1.38	$5.00	$0.00	$0.00	$0.00	$47.98	$59.50
2nd year	65.00	$27.25	$11.03	$6.96	$0.55	$1.64	$5.00	$0.00	$0.00	$0.00	$52.43	$66.05
3rd year	70.00	$29.34	$11.03	$6.96	$0.55	$1.76	$5.00	$0.00	$0.00	$0.00	$54.64	$69.32
4th year	80.00	$33.54	$11.03	$6.96	$0.55	$2.01	$5.00	$0.00	$0.00	$0.00	$59.09	$75.85

Special Calculation Note : Vacation moves to 8% of BHR after 5 years

Ratio :

The total number of Helpers & Apprentices employed shall not exceed the number of Mechanics on any one job, except on jobs where (2) teams or more are working, (1) extra Helper or Apprentice may be employed for the first (2) teams and an extra Helper or Apprentice for each additional (3) teams.

Jurisdiction (* denotes special jurisdictional note) :

ASHLAND, CARROLL, COLUMBIANA, COSHOCTON, HARRISON, HOLMES, MAHONING, MEDINA, PORTAGE, RICHLAND, STARK, SUMMIT, TRUMBULL, TUSCARAWAS, WAYNE

Special Jurisdictional Note :

Details :

Vacation 6%/under 5 years based on regular hourly rate for all hours worked. 8%/over 5 years based on regular hourly rate for all hours worked.

Prevailing Wage Rate
Skilled Crafts

Name of Union: Glazier Local 1162

Change # : LCN01-2011kpLoc1162

Craft : Glazier Effective Date : 05/04/2011 Last Posted : 05/04/2011

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Glazier	$22.31		$6.23	$4.75	$0.25	$0.00	$0.00	$0.25			$33.79	$44.94
Apprentice	Percent											
1st 6 months	50.00	$11.16	$6.23	$4.75	$0.25	$0.00	$0.00	$0.25			$22.63	$28.21
2nd 6 months	55.00	$12.27	$6.23	$4.75	$0.25	$0.00	$0.00	$0.25			$23.75	$29.89
3rd 6 months	60.00	$13.39	$6.23	$4.75	$0.25	$0.00	$0.00	$0.25			$24.87	$31.56
4th 6 months	65.00	$14.50	$6.23	$4.75	$0.25	$0.00	$0.00	$0.25			$25.98	$33.23
5th 6 months	70.00	$15.62	$6.23	$4.75	$0.25	$0.00	$0.00	$0.25			$27.10	$34.91
6th 6 months	75.00	$16.73	$6.23	$4.75	$0.25	$0.00	$0.00	$0.25			$28.21	$36.58
7th 6 months	80.00	$17.85	$6.23	$4.75	$0.25	$0.00	$0.00	$0.25			$29.33	$38.25
8th 6 months	90.00	$20.08	$6.23	$4.75	$0.25	$0.00	$0.00	$0.25			$31.56	$41.60

Special Calculation Note : OTHER IS : Supplemental Unemployment Benefits

Ratio :

1 Journeyman to 1 Apprentice
3 Journeymen to 1 Apprentice Thereafter

Jurisdiction (* denotes special jurisdictional note) :

CARROLL, COSHOCTON, HOLMES, MEDINA, PORTAGE, STARK, SUMMIT, TUSCARAWAS, WAYNE

Special Jurisdictional Note :

Details :

Add $1.25 per hour for High Pay which is all work that requires the employee be supported by equipment which hangs or suspends from the roof of a building or structure including all repelling .

Prevailing Wage Rate
Skilled Crafts

Name of Union: Ironworker Local 550 Area 1

Change # : LCN02-2012fbLoc550

Craft : Ironworker Effective Date : 08/08/2012 Last Posted : 08/08/2012

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Ironworker	$24.92		$5.68	$8.07	$0.64	$0.00	$2.23	$0.35	$0.00	$0.00	$41.89	$54.35
Apprentice	Percent											
1st 6 months	60.00	$14.95	$5.68	$8.07	$0.64	$0.00	$2.23	$0.35	$0.00	$0.00	$31.92	$39.40
2nd 6 months	65.00	$16.20	$5.68	$8.07	$0.64	$0.00	$2.23	$0.35	$0.00	$0.00	$33.17	$41.27
3rd 6 months	70.02	$17.45	$5.68	$8.07	$0.64	$0.00	$2.23	$0.35	$0.00	$0.00	$34.42	$43.14
4th 6 months	75.00	$18.69	$5.68	$8.07	$0.64	$0.00	$2.23	$0.35	$0.00	$0.00	$35.66	$45.01
5th 6 months	80.00	$19.94	$5.68	$8.07	$0.64	$0.00	$2.23	$0.35	$0.00	$0.00	$36.91	$46.87
6th 6 months	85.02	$21.19	$5.68	$8.07	$0.64	$0.00	$2.23	$0.35	$0.00	$0.00	$38.16	$48.75
7th 6 months	90.00	$22.43	$5.68	$8.07	$0.64	$0.00	$2.23	$0.35	$0.00	$0.00	$39.40	$50.61
8th 6 months	95.02	$23.68	$5.68	$8.07	$0.64	$0.00	$2.23	$0.35	$0.00	$0.00	$40.65	$52.49

Special Calculation Note : OTHER IS: JOURNEYMAN UPGRADE AND WELLNESS FUND.

Ratio :

4 Journeymen to 1 Apprentice
1 Journeymen to 1 Apprentice, spinning of cable

Jurisdiction (* denotes special jurisdictional note) :

CARROLL, COLUMBIANA*, COSHOCTON, MAHONING*, PORTAGE*, STARK, SUMMIT*,

for suspension bridge 1 Journeymen to 1 Apprentice, ornamental work 2 Journeymen to 1 Apprentice, reinforcing work ***the ratio of apprentices to journeymen may be adjusted higher on a job-to job basis with the approval of the business manager and/or business agent.	TUSCARAWAS

Special Jurisdictional Note : The jurisdictional line between Local 17 and Local 550 is determined as follows: All territory North of Old Route 224 line to be within the jurisdiction of Local 17. All territory South of Old Route 224 line is to be the jurisdiction of Local 550, except for everything within the City limits of Barberton which shall be under the jurisdiction of Local 17.

Details :

Prevailing Wage Rate
Skilled Crafts

Name of Union: Ironworker Local 550 Glass & Curtain Wall

Change # : LCN02-2012fbLoc550

Craft : Ironworker Effective Date : 07/05/2012 Last Posted : 07/05/2012

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Ironworker Glass & Curtain Wall	$22.00		$5.68	$0.00	$0.64	$0.00	$6.05	$0.35	$0.00	$0.00	$34.72	$45.72
Apprentice	Percent											
1st 6 months	60.00	$13.20	$5.68	$0.00	$0.64	$0.00	$6.05	$0.35	$0.00	$0.00	$25.92	$32.52
2nd 6 months	65.00	$14.30	$5.68	$0.00	$0.64	$0.00	$6.05	$0.35	$0.00	$0.00	$27.02	$34.17
3rd 6 months	70.00	$15.40	$5.68	$0.00	$0.64	$0.00	$6.05	$0.35	$0.00	$0.00	$28.12	$35.82
4th 6 months	75.00	$16.50	$5.68	$0.00	$0.64	$0.00	$6.05	$0.35	$0.00	$0.00	$29.22	$37.47
5th 6 months	80.00	$17.60	$5.68	$0.00	$0.64	$0.00	$6.05	$0.35	$0.00	$0.00	$30.32	$39.12
6th 6 months	85.00	$18.70	$5.68	$0.00	$0.64	$0.00	$6.05	$0.35	$0.00	$0.00	$31.42	$40.77
7th 6 months	90.00	$19.80	$5.68	$0.00	$0.64	$0.00	$6.05	$0.35	$0.00	$0.00	$32.52	$42.42
8th 6 months	95.00	$20.90	$5.68	$0.00	$0.64	$0.00	$6.05	$0.35	$0.00	$0.00	$33.62	$44.07

Special Calculation Note : OTHER IS: JOURNEYMAN UPGRADE AND WELLNESS FUND.

Ratio :

Jurisdiction (* denotes special jurisdictional note) :

1 Apprentice to 1 Journeymen	ASHLAND, CARROLL, COLUMBIANA*, COSHOCTON, HOLMES, HURON*, MAHONING*, MEDINA*, PORTAGE*, RICHLAND, STARK, SUMMIT*, TUSCARAWAS, WAYNE

Special Jurisdictional Note : The jurisdictional line between Locals 17 and 550 is determined as follows: All territory North of Old Route 224 line is to be within the jurisdiction of Local 17.
All territory South of Old Route 224 line is to be the jurisdiction of Local 550, except for everything within the City limits of Barberton which shall be under the jurisdiction of Local 17.

Details :

Prevailing Wage Rate
Skilled Crafts

Name of Union: Labor HevHwy 2

Change # : LCN02-2012kpLaborHevHwy2

Craft : Laborer Group 1 Effective Date : 05/01/2012 Last Posted : 04/25/2012

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Laborer Group 1	$26.65		$6.00	$2.90	$0.30	$0.00	$0.00	$0.00	$0.10	$0.00	$35.95	$49.27
Group 2	$26.82		$6.00	$2.90	$0.30	$0.00	$0.00	$0.00	$0.10	$0.00	$36.12	$49.53
Group 3	$27.15		$6.00	$2.90	$0.30	$0.00	$0.00	$0.00	$0.10	$0.00	$36.45	$50.02
Group 4	$27.60		$6.00	$2.90	$0.30	$0.00	$0.00	$0.00	$0.10	$0.00	$36.90	$50.70
Watch Person	$18.95		$6.00	$2.90	$0.30	$0.00	$0.00	$0.00	$0.10	$0.00	$28.25	$37.72
Apprentice	Percent											
0-1000 hrs	60.00	$15.99	$6.00	$2.90	$0.30	$0.00	$0.00	$0.00	$0.10	$0.00	$25.29	$33.28
1001-2000 hrs	70.00	$18.65	$6.00	$2.90	$0.30	$0.00	$0.00	$0.00	$0.10	$0.00	$27.95	$37.28
2001-3000 hrs	80.00	$21.32	$6.00	$2.90	$0.30	$0.00	$0.00	$0.00	$0.10	$0.00	$30.62	$41.28
3001-4000 hrs	90.00	$23.98	$6.00	$2.90	$0.30	$0.00	$0.00	$0.00	$0.10	$0.00	$33.28	$45.28
More Than 4000 hrs	100.00	$26.65	$6.00	$2.90	$0.30	$0.00	$0.00	$0.00	$0.10	$0.00	$35.95	$49.27

Special Calculation Note : Watchman has no Apprentices

Ratio :

1 Journeymen to 1 Apprentice
4 Journeymen to 1 Apprentice thereafter

Jurisdiction (* denotes special jurisdictional note) :

ASHTABULA, ERIE, HURON, LORAIN, LUCAS, MAHONING, MEDINA, OTTAWA, PORTAGE, SANDUSKY, STARK, SUMMIT, TRUMBULL, WOOD

Special Jurisdictional Note : Hod Carriers and Common Laborers - Heavy, Highway, Sewer, Waterworks, Utility, Airport, Railroad, Industrial and Building Site, Sewer Plant, Waste Water Treatment Facilities Construction

Details :

Group 1

Laborer (Construction); Plant Laborer or Yardman, Right-of-way Laborer, Landscape Laborer, Highway Lighting Worker, Signalization Worker, (Swimming) Pool Construction Laborer, Utility Man, Bridge Man, Handyman, Joint Setter, Flagperson, Carpenter Helper, Waterproofing Laborer, Slurry Seal, Seal Coating, Surface Treatment or Road Mix Laborer, Riprap Laborer & Grouter, Asphalt Laborer, Dump Man (batch trucks), Guardrail & Fence Installer, Mesh Handler & Placer, Concrete Curing Applicator, Scaffold Erector, Sign Installer, Hazardous Waste (level D), Diver Helper, Zone Person and Traffic Control.

Group 2

Asphalt Raker, Screwman or Paver, Concrete Puddler, Kettle Man (pipeline), All Machine-Driven Tools (Gas, Electric, Air), Mason Tender, Brick Paver, Mortar Mixer, Skid Steer, Sheeting & Shoring Person, Surface Grinder Person, Screedperson, Water Blast, Hand Held Wand, Power Buggy or Power Wheelbarrow, Paint Striper, Plastic fusing Machine Operator, Rodding Machine Operator, Pug Mill Operator, Operator of All Vacuum Devices Wet or Dry, Handling of all Pumps 4 inches and under (gas, air or electric), Bottom Person, Welder Helper (pipeline), Concrete Saw Person, Cutting with Burning Torch, Pipe Layer, Hand Spiker (railroad), Underground Person (working in sewer and waterline, cleaning, repairing and reconditioning). Tunnel Laborer (without air), Caisson, Cofferdam (below 25 feet deep), Air Track and Wagon Drill, Sandblaster Nozzle Person, Hazardous Waste (level B), Lead Abatement, Hazardous Waste (level C)

Group 3

Blast and Powder Person, Muckers (with miners), Wrencher (mechanical joints & utility pipeline), Yarner, Top Lander, Hazardous Waste (level A), Concrete Specialist, Curb Setter and Cutter, Concrete Crew in Tunnels. Utility pipeline Tappers, Waterline, Caulker, Signal Person, Grade Checker

Group 4

Miner, Welder, Gunite Nozzle Person

Prevailing Wage Rate
Skilled Crafts

Name of Union: Labor Local 1015 Building

Change # : LCN01-2012jcLoc1015

Craft : Laborer Effective Date : 05/02/2012 Last Posted : 05/02/2012

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Laborer Group 1	$22.67		$6.00	$2.90	$0.30	$0.00	$0.00	$0.00	$0.10	$0.00	$31.97	$43.31
Group 2	$23.07		$6.00	$2.90	$0.30	$0.00	$0.00	$0.00	$0.10	$0.00	$32.37	$43.91
Group 3	$23.42		$6.00	$2.90	$0.30	$0.00	$0.00	$0.00	$0.10	$0.00	$32.72	$44.43
Group 4	$23.37		$6.00	$2.90	$0.30	$0.00	$0.00	$0.00	$0.10	$0.00	$32.67	$44.35
Group 5	$15.71		$6.00	$2.90	$0.30	$0.00	$0.00	$0.00	$0.10	$0.00	$25.01	$32.87
Apprentice	Percent											
0-1000 hrs	60.00	$13.60	$6.00	$2.90	$0.30	$0.00	$0.00	$0.00	$0.10	$0.00	$22.90	$29.70
1001-2000 hrs	70.00	$15.87	$6.00	$2.90	$0.30	$0.00	$0.00	$0.00	$0.10	$0.00	$25.17	$33.10
2001-3000 hrs	80.00	$18.14	$6.00	$2.90	$0.30	$0.00	$0.00	$0.00	$0.10	$0.00	$27.44	$36.50
3001-4000 hrs	90.00	$20.40	$6.00	$2.90	$0.30	$0.00	$0.00	$0.00	$0.10	$0.00	$29.70	$39.90
More than 4000 hrs	100.00	$22.67	$6.00	$2.90	$0.30	$0.00	$0.00	$0.00	$0.10	$0.00	$31.97	$43.31

Special Calculation Note : No special calculations for this skilled craft wage rate are required at this time.

Ratio :

1 Journeyman to 1 Apprentice
4 Journeyman to 1 Apprentice

Jurisdiction (* denotes special jurisdictional note) :
CARROLL, STARK, WAYNE

Special Jurisdictional Note :

Details :

Group 1
Building & Construction Laborer, Signalman, Flagman, Tool Cribman, Carpenter Tender, Finisher Tender, Concrete Handler, Utility Construction Laborer, Guard Rail Erectors, Hazardous Waste (Level D)

Group 2
Bottom Man, Scaffold Builder, Tunnel laborer, Pipe Layer, Air and Power Driven Tools, Burner on Demolition Work, Swinging Scaffold, Mucker, Caisson Worker, Cofferdam Worker, Powder Men and Dynamite Blaster, Creosote Worker, Form Setter, Plasterer Tender, Hod Carrier Laser Beam Set-up Man, All confined space work, furnaces, pickel tubs, acid-pits, and Hazardous Waste Level (C)

Group 3
Mason Tender, Mortar Mixer, Stonemason Tender,skid-loader, Hazardous Waste Level (B)

Group 4
Gunnite Operator, Hazardous Waste Level (A)

Group 5
Watchman

Prevailing Wage Rate
Skilled Crafts

Name of Union: Operating Engineers - Building Local 18 - Zone III

Change # : LCN02-2012jcLoc18zone3

Craft : Operating Engineer Effective Date : 05/01/2012 Last Posted : 04/25/2012

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Operator Class 1	$30.79		$6.66	$5.75	$0.60	$0.00	$0.00	$0.04	$0.00	$0.00	$43.84	$59.24
Class 2	$30.67		$6.66	$5.75	$0.60	$0.00	$0.00	$0.04	$0.00	$0.00	$43.72	$59.06
Class 3	$29.63		$6.66	$5.75	$0.60	$0.00	$0.00	$0.04	$0.00	$0.00	$42.68	$57.50
Class 4	$28.45		$6.66	$5.75	$0.60	$0.00	$0.00	$0.04	$0.00	$0.00	$41.50	$55.72
Class 5	$22.99		$6.66	$5.75	$0.60	$0.00	$0.00	$0.04	$0.00	$0.00	$36.04	$47.53
Class 6	$31.04		$6.66	$5.75	$0.60	$0.00	$0.00	$0.04	$0.00	$0.00	$44.09	$59.61
Class 7	$31.29		$6.66	$5.75	$0.60	$0.00	$0.00	$0.04	$0.00	$0.00	$44.34	$59.99
Class 8	$31.79		$6.66	$5.75	$0.60	$0.00	$0.00	$0.04	$0.00	$0.00	$44.84	$60.74
Class 9	$32.05		$6.66	$5.75	$0.60	$0.00	$0.00	$0.04	$0.00	$0.00	$45.10	$61.13
Apprentice	Percent											
1st Year	50.00	$15.40	$6.66	$5.75	$0.60	$0.00	$0.00	$0.04	$0.00	$0.00	$28.44	$36.14
2nd Year	60.00	$18.47	$6.66	$5.75	$0.60	$0.00	$0.00	$0.04	$0.00	$0.00	$31.52	$40.76
3rd Year	70.00	$21.55	$6.66	$5.75	$0.60	$0.00	$0.00	$0.04	$0.00	$0.00	$34.60	$45.38
4th Year	80.00	$24.63	$6.66	$5.75	$0.60	$0.00	$0.00	$0.04	$0.00	$0.00	$37.68	$50.00
Field Mechanic Trainee												
1st Year	50.00	$15.40	$6.66	$5.75	$0.60	$0.00	$0.00	$0.04	$0.00	$0.00	$28.44	$36.14
2nd Year	60.00	$18.47	$6.66	$5.75	$0.60	$0.00	$0.00	$0.04	$0.00	$0.00	$31.52	$40.76
3rd Year	70.00	$21.55	$6.66	$5.75	$0.60	$0.00	$0.00	$0.04	$0.00	$0.00	$34.60	$45.38
4th Year	80.00	$24.63	$6.66	$5.75	$0.60	$0.00	$0.00	$0.04	$0.00	$0.00	$37.68	$50.00

Special Calculation Note : Other: Education & Safety Fund is $0.04 per hour.

Ratio :

Jurisdiction (* denotes special jurisdictional note) :

For every (5) Operating Engineer Journeymen employed by the company ,there may be employed (1) Registered Apprentice. On jobs where maintenance engineers are to be employed, for every (1) Class 1 Mechanics there may be (1) Mechanic Trainee & so fourth. Mechanic Trainee rate is a percentage of Class 1 rate.

ADAMS, ALLEN, ASHLAND, ATHENS, AUGLAIZE, BELMONT, BROWN, BUTLER, CARROLL, CHAMPAIGN, CLARK, CLERMONT, CLINTON, COSHOCTON, CRAWFORD, DARKE, DEFIANCE, DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, FULTON, GALLIA, GREENE, GUERNSEY, HAMILTON, HANCOCK, HARDIN, HARRISON, HENRY, HIGHLAND, HOCKING, HOLMES, JACKSON, JEFFERSON, KNOX, LAWRENCE, LICKING, LOGAN, MADISON, MARION, MEIGS, MERCER, MIAMI, MONROE, MONTGOMERY, MORGAN, MORROW, MUSKINGUM, NOBLE, OTTAWA, PAULDING, PERRY, PICKAWAY, PIKE, PREBLE, PUTNAM, RICHLAND, ROSS, SANDUSKY, SCIOTO, SENECA, SHELBY, STARK, TUSCARAWAS, UNION, VAN WERT, VINTON, WARREN, WASHINGTON, WAYNE, WILLIAMS, WYANDOT

Special Jurisdictional Note :

Details :

**Apprentices will receive a 10% increase on top of the percentages listed above provided they are operating mobile equipment. Mechanic Trainees will receive 10% increase if required to have CDL

Class 1 - Barrier Moving Machine; Boiler Operators or Compressor Operators, when compressor or boiler is mounted on crane (Piggyback Operation); Boom Trucks (all types); Cableways Cherry Pickers; Combination - Concrete Mixers & Towers; All Concrete Pumps with Booms; Cranes (all types) Derricks (all types); Draglines Dredges (dipper, clam or suction) 3-man crew; Elevating Graders or Euclid Loaders; Floating Equipment; Gradalls; Helicopter Operators; hoisting building materials; Helicopter Winch Operators, Hoisting building materials; Hoes (All types); Hoists (with two or more drums in use): Hydraulic Gantry (lift system); Laser Finishing Machines; Lift Slab or Panel Jack Operators; Locomotives (all types); Maintenance Engineers (Mechanic and/or Welder); Mixers, paving (multiple drum); Mobile Concrete Pumps, with booms, Panelboards, (all types on site); Pile Drivers; Power Shovels; Prentice Loader; Rail Tamper (with automatic lifting and aligning device);' Rotary Drills (all) used on caissons for foundations and sub-structure work; Side Booms; Slip Form Pavers; Straddle Carriers (Building Construction on site); Tug Boats. Horizontal Directional Drill, Rough Terrain Fork-lift with Winch/Hoist, Laser Screed, and Like equipment;Compact Cranes,track or rubber over 4,000 pound capacity,self-erecting cranes:stationary,track or truck (all configurations) bucket trench machines (over 24 " wide).

Class 2 - Asphalt Pavers; Bobcat-type and/or skid steer loader with hoe attachment greater than 7000 lbs. Bulldozers; CMI type Equipment; Endloaders; Hydro Milling Machine; Kolman-type Loaders (Dirt Loading); Lead Greasemen; Mucking Machines; Pettibone-Rail Equipment; Power Graders;

Power Scoops; Power Scrapers; Push Cats; Vermeer Type Concrete Saw;All rotomills, grinders & planers of all types. Articulating/end dumps (minus $4.00/hour from Class 2 rate)

Class 3 - A Frames; Air Compressors, Pressurizing Shafts or Tunnels; All Asphalt Rollers; Bobcat-type and/or skid steer loader with or without attachments; Boilers (15 lbs pressure and over); All concrete Pumps (without booms with 5 inch system); Fork Lifts (except masonry); Highway Drillers - all types (with integral power); Hoists (with one drum); House Elevators (except those automatic call button controlled); Man lifts; Mud Jacks; Pressure Grouting; Pump Operators (installing or operating Well Points or other types of Dewatering Systems); Pumps (4 inches and over discharge); Railroad Tie Inserter/Remover; Rotator (Lime-Soil Stabilizer); Submersible Pumps (4 inches and over discharge); Switch & Tie Tampers (without lifting and aligning device); Trench Machines (24 inches and under); Utility Operators; Material hoist/elevators.

Class 4 - Ballast Re-locator; Backfillers and Tampers; Batch Plant Operators; Bar and Joint Installing Machines; Bull Floats; Burlap and Curing Machines; Clefplanes; Compressors, on building construction; Concrete Spreader; Conveyors, used for handling building materials; Concrete Mixers, one bag capacity (side loader); Concrete Mixers, capacity more than one bag; Crushers; Deck Hands; Drum Fireman (in Asphalt Plant); Farm type tractors pulling attachments; Finishing Machines; Form Trenchers; Generators: Gunite Machines; Hydro-Seeders; Pavement Breakers (hydraulic or cable); Post Drivers; Post Hole Diggers; Pressure Pumps (over 1/2 inch discharge); Road Widening Trenchers; Rollers (except asphalt); All Concrete pumps (without Boom with 4 inch or smaller systems); Self-Propelled Power Spreaders; Concrete Spreaders; Self-Propelled Sub-graders; Shotcrete Machines; Tire Repairmen; Tractors, pulling sheepfoot rollers or graders; VAC/ALLS; Vibratory Compactors, with integral power; Welder Operators.

Class 5 - Boilers (less than 15 lbs. pressure); Inboard/outboard Motor Boat Launches; Light Plant Operators; Masonry Fork Lifts; Oilers/Helpers; Power Driven Heaters (oil fired); Power Scrubbers; Power Sweepers; Pumps (under 4 inch discharge); Signalmen, Submersible Pumps (under 4 inch discharge). Directional Drill Locator and Allen Screed Concrete Paver. Fueling and greasing (plus $3.00), compact cranes; track or rubber under 4,000 pounds.

Class 6 - Master Mechanic

Class 7 - Boom & Jib 150 - 180 feet

Class 8 - Boom & Jib 180 - 249 feet

Class 9 - Boom & Jib 250 - or over

Prevailing Wage Rate
Skilled Crafts

Name of Union: Operating Engineers - HevHwy II

Change # : LCN01-2012jcLoc18hevhwyII

Craft : Operating Engineer Effective Date : 05/01/2012 Last Posted : 04/25/2012

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Operator Class 1	$30.79		$6.66	$5.75	$0.60	$0.00	$0.00	$0.04	$0.00	$0.00	$43.84	$59.24
Class 2	$30.67		$6.66	$5.75	$0.60	$0.00	$0.00	$0.04	$0.00	$0.00	$43.72	$59.06
Class 3	$29.63		$6.66	$5.75	$0.60	$0.00	$0.00	$0.04	$0.00	$0.00	$42.68	$57.50
Class 4	$28.45		$6.66	$5.75	$0.60	$0.00	$0.00	$0.04	$0.00	$0.00	$41.50	$55.72
Class 5	$22.99		$6.66	$5.75	$0.60	$0.00	$0.00	$0.04	$0.00	$0.00	$36.04	$47.53
Class 6	$31.04		$6.66	$5.75	$0.60	$0.00	$0.00	$0.04	$0.00	$0.00	$44.09	$59.61
Class 7	$31.04		$6.66	$5.75	$0.60	$0.00	$0.00	$0.04	$0.00	$0.00	$44.09	$59.61
Class 8	$31.29		$6.66	$5.75	$0.60	$0.00	$0.00	$0.04	$0.00	$0.00	$44.34	$59.99
Great Lakes Floating Agreement												
Class 1	$36.65		$6.66	$5.50	$0.60	$0.00	$0.00	$0.04	$0.00	$0.00	$49.45	$67.77
Class 2A	$35.15		$6.66	$5.50	$0.60	$0.00	$0.00	$0.04	$0.00	$0.00	$47.95	$65.52
Class 2B	$35.15		$6.66	$5.50	$0.60	$0.00	$0.00	$0.04	$0.00	$0.00	$47.95	$65.52
Class 3	$31.25		$6.66	$5.50	$0.60	$0.00	$0.00	$0.04	$0.00	$0.00	$44.05	$59.67
Class 4	$25.90		$6.66	$5.50	$0.60	$0.00	$0.00	$0.04	$0.00	$0.00	$38.70	$51.65
Apprentice	**Percent**											
1st Year	50.00	$15.40	$6.66	$5.75	$0.60	$0.00	$0.00	$0.04	$0.00	$0.00	$28.44	$36.14
2nd Year	60.00	$18.47	$6.66	$5.75	$0.60	$0.00	$0.00	$0.04	$0.00	$0.00	$31.52	$40.76
3rd Year	70.00	$21.55	$6.66	$5.75	$0.60	$0.00	$0.00	$0.04	$0.00	$0.00	$34.60	$45.38
4th Year	80.00	$24.63	$6.66	$5.75	$0.60	$0.00	$0.00	$0.04	$0.00	$0.00	$37.68	$50.00
Field Mech Trainee												
1st year	49.80	$15.33	$6.66	$5.75	$0.60	$0.00	$0.00	$0.04	$0.00	$0.00	$28.38	$36.05
2nd year	59.75	$18.40	$6.66	$5.75	$0.60	$0.00	$0.00	$0.04	$0.00	$0.00	$31.45	$40.65
3rd year	69.73	$21.47	$6.66	$5.75	$0.60	$0.00	$0.00	$0.04	$0.00	$0.00	$34.52	$45.25

4th year	79.70	$24.54	$6.66	$5.75	$0.60	$0.00	$0.00	$0.04	$0.00	$0.00	$37.59	$49.86

Special Calculation Note : Other: Education & Safety Fund is $0.04 per hour.

Ratio :

For every (5) Operating Engineer Journeymen employed by the company , there may be employed (1) Registered Apprentice. An apprentice, while employed as part of a crew per Article VIII paragraph 65, will not be subject the apprenticeship ratios in this collective bargaining agreement. On jobs where maintenance engineers are to be employed, for every (2) Class 2 Mechanics there may be (1) Mechanic Trainee & so fourth. Mechanic Trainee rate is a percentage of Class 2 rate.

Jurisdiction (* denotes special jurisdictional note) :

ADAMS, ALLEN, ASHLAND, ATHENS, AUGLAIZE, BELMONT, BROWN, BUTLER, CARROLL, CHAMPAIGN, CLARK, CLERMONT, CLINTON, COSHOCTON, CRAWFORD, DARKE, DEFIANCE, DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, FULTON, GALLIA, GREENE, GUERNSEY, HAMILTON, HANCOCK, HARDIN, HARRISON, HENRY, HIGHLAND, HOCKING, HOLMES, HURON, JACKSON, JEFFERSON, KNOX, LAWRENCE, LICKING, LOGAN, LUCAS, MADISON, MARION, MEIGS, MERCER, MIAMI, MONROE, MONTGOMERY, MORGAN, MORROW, MUSKINGUM, NOBLE, OTTAWA, PAULDING, PERRY, PICKAWAY, PIKE, PREBLE, PUTNAM, RICHLAND, ROSS, SANDUSKY, SCIOTO, SENECA, SHELBY, STARK, TUSCARAWAS, UNION, VAN WERT, VINTON, WARREN, WASHINGTON, WAYNE, WILLIAMS, WOOD, WYANDOT

Special Jurisdictional Note :

Details :

**Apprentices will receive a 10% increase on top of the percentages listed above provided they are operating mobile equipment. Mechanic Trainees will receive 10% increase if they are required to have CDL.

Class 1 - Air Compressors on Steel Erection; Barrier Moving Machine; Boiler Operators, on Compressors or Generators, when mounted on a rig: Cableways, Combination Concrete mixers & Towers; Concrete Pumps; Concrete Plants (over 4 yd capacity); Cranes (all types, including Boom Trucks, Cherry Pickers); Derricks; Draglines, Dredgers (dipper, clam or suction); Elevating Graders or Euclid Loaders; Floating Equipment (all types); Gradalls, Helicopter Crew (Operator- hoist or winch); Hoes (all types); Hoisting Engines, on shaft or tunnel work; Hydraulic Gantry (lifting system); Industrial - Type Tractors; Jet Engine Dryers (D8 or D9), Diesel Tractors; Locomotives (standard gage); Maintenance Operators (class A); Mixers, paving (single or double drum); Mucking Machines; Multiple Scrapers; Piledriving Machines (all types); Power Shovels, Prentice Loader; Quad 9 (double pusher); Rail Tamper (with automatic lifting and aligning device); Refrigerating Machines (freezer operation); Side Booms; Slip Form Pavers; Tower Dericks; Tree Shredders; Truck Mounted Concrete Pumps; Tug Boats; Tunnel Machines and /or Mining Machines; Wheel Excavators. Rough

Terrain Fork-lift with Winch/Hoist; Compact Cranes, track rubber over 4,000 pound capacity, self-erecting cranes; stationary, track or truck (all configurations) Bucket trench machines (over 24 inches wide).

Class 2 - Asphalt Pavers; Automatic Subgrade Machines, self-propelled (CMI-type); Bobcat-type and /or skid steer loader with hoe attachment greater than 7000 lbs.; Boring Machine Operators (more than 48 inches); Bulldozers; Endloaders; Hydro Milling Machine; Kolman-type Loaders (production type-dirt); Lead Greasemen; Maintenance Operators, Class B (Portage and Summit Counties only); Pettibone-Rail Equipment; Power Graders; Power Scrapers; Push Cats; Lighting and Traffic Signal Installation Equipment includes all groups or classifications; Trench Machines (24inch wide and under); Vermeer Type Concrete saw. Material Transfer Equipment (Shuttle buggy) Asphalt; All rotomills,grinders and planers of all types. Horizontal Directional Drill (Over 50,000 ft.lbs.thrust and over)

Class 3 - A-Frames; Air Compressors, on tunnel work (low Pressure); Asphalt Plant Engineers; Bobcat-type and/or skid steer loader with or without attachments; Power Boilers (15 lbs pressure and over); Highway Drills (all types); Rollers, asphalt; Pump Operators (installing or operating well Points); Pumps (4 inch and over discharge); Railroad Tie Inserter/Remover; Rotator (lime-soil Stabilizer), Switch & Tie Tampers (without lifting and aligning device); Locomotives (narrow gage); Mixers, concrete (more than one bag capacity); Mixers, one bag capacity (side loader); Utilities Operators, (small equipment); Welding Machines; Material hoist/elevators. Articulating/straight bed end dumps if assigned (minus $4.00 per hour).

Class 4 -Ballast Re-locator; Backfillers, Batch Plants; Bar and Joint Installing Machines; Boring Machine Operators (48 inch or less); Bull Floats; Burlap and Curing Machines; Concrete Plants (capacity 4 yd and under); Conveyors (highway); Concrete Saws (multiple); Crushers; Deckhands; Farm type tractors, with attachments (highway), except masonry; Finishing Machines; Firemen, Floating Equipment (all types); Fork Lifts (highway); Form Trenchers; Hydro Hammers; Hydro Seeders; Pavement Breakers; Plant Mixers; Post Drivers; Post Hole Diggers (power auger); Power Brush Burners; Power Form Handling Equipment; Road Widening Trenchers; Rollers (brick, grade, macadam); Self-Propelled Power Spreaders; Self-Propelled Sub-Graders; Tractors, pulling sheepsfoot rollers or graders; Steam Firemen; Vibratory Compactors, with integral power.

Class 5 - Compressors (portable, Sewer, Heavy and Highway); Generators; Inboard-Outboard Motor Boat Launches; Masonry Fork Lifts; Oilers/Helpers; Power Driven Heaters; Power Scrubbers; Power Sweepers; Pumps (under 4 inch discharge); Signalmen; Drum Fireman (in Asphalt Plant); Oil Heaters (Asphalt Plant); Tire Repairmen; VAC/ALLS; Fueling and greasing (plus $3.00), compact cranes: track or rubber under 4,000 pounds.

Class 6 - Master Mechanic

Class 7 - Crane Boom 150 ft - 180 ft

Class 8 - Crane Boom over 180 ft .

GREAT LAKES FLOATING AGREEMENT:

Class 1 - Diver,Wet Tender, Engineer, (Hyd.Dredge), Craft Foreman (Master Mechanic)
Class 2A - Crane Backhoe Operator,Mechanic/Welder,Assistant Engineer (Hyd. Dredge), Leverman (Hyd Dredge) Diver Tender, Tug Operator (Tug 70T and over)
Class 2B - Friction Crane, Lattice Boom or any Crane Certification.
Class 3 - Deck Equipment Operator, (Machineryman), Maint. of Crane, Tug/Launch Operator, Loader/Dozer on Barge, Deck Machinery, Maintenance of Crane (over 50T capacity), or Backhoe (115,000lbs or more) Loaders/Dozer and like equipment on Barge, Breakwater Wall, Slip/Dock Scow.
Class4 - Deck Equipment Operator, (Machineryman/Fireman)(4 equipment Units or more), Deck Hand, Tug Engineer, Crane Maintenance, 50T and under/Backhoe 115,000lbs or less, Assistant Tug Operator, add off Road Truck.

Prevailing Wage Rate
Skilled Crafts

Name of Union: Painter Local 603

Change # : LCN01-2012fbLoc603Com.

Craft : Drywall Finisher Effective Date : 06/06/2012 Last Posted : 06/06/2012

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Painter Drywall Finisher	$20.10		$4.96	$5.40	$0.19	$0.00	$0.45	$0.00	$0.00	$0.00	$31.10	$41.15
Drywall Taping	$20.10		$4.96	$5.40	$0.19	$0.00	$0.45	$0.00	$0.00	$0.00	$31.10	$41.15
Taping and Finishing with Automatic Tools	$20.45		$4.96	$5.40	$0.19	$0.00	$0.45	$0.00	$0.00	$0.00	$31.45	$41.67
Apprentice	Percent											
1st 6 months	40.00	$8.04	$4.96	$5.40	$0.19	$0.00	$0.45	$0.00	$0.00	$0.00	$19.04	$23.06
2nd 6 months	50.00	$10.05	$4.96	$5.40	$0.19	$0.00	$0.45	$0.00	$0.00	$0.00	$21.05	$26.08
3rd 6 months	60.00	$12.06	$4.96	$5.40	$0.19	$0.00	$0.45	$0.00	$0.00	$0.00	$23.06	$29.09
4rd 6 months	70.00	$14.07	$4.96	$5.40	$0.19	$0.00	$0.45	$0.00	$0.00	$0.00	$25.07	$32.11
5th 6 months	80.00	$16.08	$4.96	$5.40	$0.19	$0.00	$0.45	$0.00	$0.00	$0.00	$27.08	$35.12
6th 6 months	90.00	$18.09	$4.96	$5.40	$0.19	$0.00	$0.45	$0.00	$0.00	$0.00	$29.09	$38.14

Special Calculation Note : Apprentice pay based on percentage of above appropriate classification.

Ratio :

1 Journeymen to 1 Apprentice

Jurisdiction (* denotes special jurisdictional note) :

CARROLL, COSHOCTON, HOLMES, STARK, TUSCARAWAS, WAYNE

Special Jurisdictional Note :

Details :

Journeymen and apprentices using coal tar, vinyl's, epoxies or any product using hot or special thinner, shall be paid an additional $0.50 per hour for (class 3) and an additional $.50 for (class 4) of each classification. This does not apply to water based epoxies.

When concrete block is filled by spray application, Roller men shall be paid $0.25 per hour in addition to the Brush and Roll rate.

Drywall Finisher: both wipe down man and finisher, when using Journeyman's own stilts or automatic tools add .80 per hour worked to the classification above. Drywall Finishers: both wipe down man and taper/finisher, swing stage, ladder jack, or window jack add $.30 per hour worked to the above classification.

Prevailing Wage Rate
Skilled Crafts

Name of Union: Painter Local 603

Change # : LCN01-2012fbLoc603Com.

Craft : Painter Effective Date : 06/12/2012 Last Posted : 06/06/2012

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Painter Brush Roll	$19.70		$4.96	$5.40	$0.19	$0.00	$0.45	$0.00	$0.00	$0.00	$30.70	$40.55
Wallcovering Installer	$19.80		$4.96	$5.40	$0.19	$0.00	$0.45	$0.00	$0.00	$0.00	$30.80	$40.70
Spray Gun Operator	$20.20		$4.96	$5.40	$0.19	$0.00	$0.45	$0.00	$0.00	$0.00	$31.20	$41.30
Apprentice	Percent											
1st 6 months	45.00	$8.87	$4.96	$5.40	$0.19	$0.00	$0.45	$0.00	$0.00	$0.00	$19.87	$24.30
2nd 6 months	50.00	$9.85	$4.96	$5.40	$0.19	$0.00	$0.45	$0.00	$0.00	$0.00	$20.85	$25.77
3rd 6 months	55.00	$10.84	$4.96	$5.40	$0.19	$0.00	$0.45	$0.00	$0.00	$0.00	$21.83	$27.25
4th 6 months	60.00	$11.82	$4.96	$5.40	$0.19	$0.00	$0.45	$0.00	$0.00	$0.00	$22.82	$28.73
5th 6 months	65.00	$12.81	$4.96	$5.40	$0.19	$0.00	$0.45	$0.00	$0.00	$0.00	$23.80	$30.21
6th 6 months	70.00	$13.79	$4.96	$5.40	$0.19	$0.00	$0.45	$0.00	$0.00	$0.00	$24.79	$31.69
7th 6 months	75.00	$14.77	$4.96	$5.40	$0.19	$0.00	$0.45	$0.00	$0.00	$0.00	$25.77	$33.16
8th 6 months	80.00	$15.76	$4.96	$5.40	$0.19	$0.00	$0.45	$0.00	$0.00	$0.00	$26.76	$34.64

Special Calculation Note : Apprentice pay based on percentage of above appropriate classification.

Ratio :

1 Journeymen to 1 Apprentice

Jurisdiction (* denotes special jurisdictional note) :

CARROLL, COSHOCTON, HOLMES, STARK, TUSCARAWAS, WAYNE

Special Jurisdictional Note :

Details :

Journeymen and apprentices using coal tar, vinyl's, epoxies or any product using hot or special thinner, shall be paid an additional $0.50 per hour for (class 3) and an additional $.50 for (class 4) of each classification. This does not apply to water based epoxies.

When concrete block is filled by spray application, Roller men shall be paid $0.25 per hour in addition to the Brush and Roll rate.

Drywall Finisher: both wipe down man and finisher ($20.95) when using Journeyman's own stilts or automatic tools ($21.45). Drywall Finisher w/Machines both wipe down man and finisher ($21.30) when using Journeyman's own stilts or automatic tools ($21.80) Apprentice pay based on percentage of above appropriate classification.

Prevailing Wage Rate
Skilled Crafts

Name of Union: Painter Local 603 Industrial

Change # : LCN01-2012fbLoc603Ind.

Craft : Painter Effective Date : 06/12/2012 Last Posted : 06/06/2012

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Painter Brush Roll	$20.00		$4.96	$5.40	$0.19	$0.00	$0.45	$0.00	$0.00	$0.00	$31.00	$41.00
Tanks & Spray Painter	$20.53		$4.96	$5.40	$0.19	$0.00	$0.45	$0.00	$0.00	$0.00	$31.53	$41.80
Bridges, Towers, Poles, Stacks	$20.71		$4.96	$5.40	$0.19	$0.00	$0.45	$0.00	$0.00	$0.00	$31.71	$42.07
Sandblasting, Metallizing & Structural Steel	$20.71		$4.96	$5.40	$0.19	$0.00	$0.45	$0.00	$0.00	$0.00	$31.71	$42.07
Apprentice	Percent											
1st 6 months	45.00	$9.00	$4.96	$5.40	$0.19	$0.00	$0.45	$0.00	$0.00	$0.00	$20.00	$24.50
2nd 6 months	50.00	$10.00	$4.96	$5.40	$0.19	$0.00	$0.45	$0.00	$0.00	$0.00	$21.00	$26.00
3rd 6 months	55.00	$11.00	$4.96	$5.40	$0.19	$0.00	$0.45	$0.00	$0.00	$0.00	$22.00	$27.50
4th 6 months	60.00	$12.00	$4.96	$5.40	$0.19	$0.00	$0.45	$0.00	$0.00	$0.00	$23.00	$29.00
5th 6 months	65.00	$13.00	$4.96	$5.40	$0.19	$0.00	$0.45	$0.00	$0.00	$0.00	$24.00	$30.50
6th 6 months	70.00	$14.00	$4.96	$5.40	$0.19	$0.00	$0.45	$0.00	$0.00	$0.00	$25.00	$32.00
7th 6 months	75.00	$15.00	$4.96	$5.40	$0.19	$0.00	$0.45	$0.00	$0.00	$0.00	$26.00	$33.50
8th 6 months	80.00	$16.00	$4.96	$5.40	$0.19	$0.00	$0.45	$0.00	$0.00	$0.00	$27.00	$35.00

Special Calculation Note : Apprentice pay based on percentage of above appropriate classification.

Ratio :

Jurisdiction (* denotes special jurisdictional note) :

1 Journeymen to 1 Apprentice	CARROLL, COSHOCTON, HOLMES, STARK, TUSCARAWAS, WAYNE

Special Jurisdictional Note :

Details :

Journeymen and apprentices using coal tar, vinyl's, epoxies or any product using hot or special thinner, shall be paid an additional $0.50 per hour for (class 3) and an additional $.50 for (class 4) of each classification. This does not apply to water based epoxies.
When concrete block is filled by spray application, Roller men shall be paid $0.25 per hour in addition to the Brush and Roll rate.
Drywall Finisher: both wipe down man and finisher ($20.95) when using Journeyman's own stilts or automatic tools ($21.45). Drywall Finisher w/Machines both wipe down man and finisher ($21.30) when using Journeyman's own stilts or automatic tools ($21.80) Apprentice pay based on percentage of above appropriate classification.

Prevailing Wage Rate
Skilled Crafts

Name of Union: Painter Local 639 (A) Sign

Change # : CN01-2009Loc639A

Craft : Painter Effective Date : 03/06/2009 Last Posted : 03/06/2009

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Painter Sign Erector	$19.98		$4.46	$1.00	$0.25	$1.68	$0.00	$0.00			$27.37	$37.36
Serviceman	$19.98		$4.46	$1.00	$0.25	$1.68	$0.00	$0.00			$27.37	$37.36
Metal Sign Fabricator	$19.98		$4.46	$1.00	$0.25	$1.68	$0.00	$0.00			$27.37	$37.36
Neon Bender Pattern Maker	$19.98		$4.46	$1.00	$0.25	$1.68	$0.00	$0.00			$27.37	$37.36
Computer Operator	$18.98		$4.46	$1.00	$0.25	$1.61	$0.00	$0.00			$26.30	$35.79
Router	$18.98		$4.46	$1.00	$0.25	$1.61	$0.00	$0.00			$26.30	$35.79
Plastic Wood Fabricator	$18.98		$4.46	$1.00	$0.25	$1.61	$0.00	$0.00			$26.30	$35.79
Vinyl Applicator	$18.98		$4.46	$1.00	$0.25	$1.61	$0.00	$0.00			$26.30	$35.79
Apprentice For Sign Service, Metal,Neon,Pattern	**Percent**											
1000 hrs	50.00	$9.99	$4.46	$1.00	$0.25	$1.03	$0.00	$0.00			$16.73	$21.73
2000 hrs	55.00	$10.99	$4.46	$1.00	$0.25	$0.37	$0.00	$0.00			$17.07	$22.56
3000 hrs	60.00	$11.99	$4.46	$1.00	$0.25	$0.37	$0.00	$0.00			$18.07	$24.06
4000 hrs	65.00	$12.99	$4.46	$1.00	$0.25	$0.37	$0.00	$0.00			$19.07	$25.56
5000 hrs	70.00	$13.99	$4.46	$1.00	$0.25	$0.37	$0.00	$0.00			$20.07	$27.06
6000 hrs	85.00	$16.98	$4.46	$1.00	$0.25	$0.37	$0.00	$0.00			$23.06	$31.55
7000 hrs	90.00	$17.98	$4.46	$1.00	$0.25	$0.37	$0.00	$0.00			$24.06	$33.05

Special Calculation Note : Apprentice Rates For: Computer Operator, Router, Plastic-Wood Fabricator Vinyl Application
1000 hrs 50% plus ($4.46 h&w)+($1.00 pension)+($.25 apprentice training) + vacation $0.99
2000 hrs 55% plus ($4.46 h&w)+($1.00 pension)+($.25 apprentice training) + vacation $0.37
3000 hrs 65% plus ($4.46 h&w)+($1.00 pension)+($.25 apprentice training) + vacation $0.37

4000 hrs 50% plus ($4.46 h&w)+($1.00 pension)+($.25 apprentice training) + vacation $0.37
5000 hrs 70% plus ($4.46 h&w)+($1.00 pension)+($.25 apprentice training) + vacation $0.37
6000 hrs 85% plus ($4.46 h&w)+($1.00 pension)+($.25 apprentice training) + vacation $0.37
7000 hrs 90% plus ($4.46 h&w)+($1.00 pension)+($.25 apprentice training) + vacation $0.37

Ratio :

Jurisdiction (* denotes special jurisdictional note) :
ASHLAND, ASHTABULA, CUYAHOGA, ERIE, GEAUGA, LAKE, LORAIN, MEDINA, PORTAGE, RICHLAND, STARK, SUMMIT

Special Jurisdictional Note :

Details :
Sign and display work shall include but not limited: to the making and installation of all signs and servicing of the same, lettering and pictorial work of any kind, including vinyl signs and vinyl substrates and the preparing for the finishing of same, be it by hand, brush, roller,spray, mechanical or computer aided and by any other method or process pertaining to same: they shall have control of all branches, methods and processes of screen process work: tube bending and display work such as creating, building and finishing of all display matter and its related operations used for advertising purposes, including all lettering whether it be done by hand, mechanical or computer aided or by any other method or process pertaining to same: the construction, erection and maintenance of all billboards and all communication advertising.

Prevailing Wage Rate
Skilled Crafts

Name of Union: Painter Local 639 (Cleveland Area) Sign

Change # : CN01-2006Loc639Cleve

Craft : Painter Effective Date : 01/03/2006 Last Posted : 01/03/2006

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Painter Sign	$20.20		$3.13	$3.25	$0.20	$1.96	$0.00	$0.00			$28.74	$38.84
Apprentice	Percent											
1000 hrs	40.00	$8.08	$3.13	$3.25	$0.20	$1.07	$0.00	$0.00			$15.73	$19.77
2000 hrs	50.00	$10.10	$3.13	$3.25	$0.20	$1.22	$0.00	$0.00			$17.90	$22.95
3000 hrs	60.00	$12.12	$3.13	$3.25	$0.20	$1.37	$0.00	$0.00			$20.07	$26.13
4000 hrs	70.00	$14.14	$3.13	$3.25	$0.20	$1.51	$0.00	$0.00			$22.23	$29.30
5000 hrs	75.00	$15.15	$3.13	$3.25	$0.20	$1.59	$0.00	$0.00			$23.32	$30.89
6000 hrs	80.00	$16.16	$3.13	$3.25	$0.20	$1.66	$0.00	$0.00			$24.40	$32.48
7000 hrs	85.00	$17.17	$3.13	$3.25	$0.20	$1.74	$0.00	$0.00			$25.49	$34.07
8000 hrs	90.00	$18.18	$3.13	$3.25	$0.20	$1.81	$0.00	$0.00			$26.57	$35.66

Special Calculation Note : No special calculations for this skilled craft wage rate are required at this time.

Ratio :

Jurisdiction (* denotes special jurisdictional note) :
ALLEN, ASHLAND, ASHTABULA, AUGLAIZE, BELMONT, CARROLL, CHAMPAIGN, COLUMBIANA, COSHOCTON, CRAWFORD, CUYAHOGA, DEFIANCE, ERIE, FULTON, GEAUGA, GUERNSEY, HANCOCK, HARDIN, HARRISON, HENRY, HOLMES, HURON, JEFFERSON, KNOX, LAKE, LOGAN, LORAIN, LUCAS, MAHONING, MARION,

MEDINA, MERCER, MONROE, MORROW, NOBLE, OTTAWA, PAULDING, PIKE, PORTAGE, PUTNAM, RICHLAND, SANDUSKY, SENECA, SHELBY, STARK, SUMMIT, TRUMBULL, TUSCARAWAS, VAN WERT, WASHINGTON, WAYNE, WILLIAMS, WOOD, WYANDOT

Special Jurisdictional Note :

Details :

Prevailing Wage Rate
Skilled Crafts

Name of Union: Painter Local 639 (D) Sign

Change # : CN01-2005Loc639D

Craft : Painter Effective Date : 12/12/2005 Last Posted : 12/12/2005

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Painter Sign Erector	$15.25		$3.65	$1.45	$0.10	$1.34	$0.00	$0.00			$21.79	$29.41
Sign Fabricator	$15.25		$3.65	$1.45	$0.10	$1.34	$0.00	$0.00			$21.79	$29.41
Serviceman	$15.25		$3.65	$1.45	$0.10	$1.34	$0.00	$0.00			$21.79	$29.41
Apprentice	Percent											
0-6 Months	60.00	$9.15	$3.65	$1.45	$0.10	$0.94	$0.00	$0.00			$15.29	$19.87
6-12 Months	65.00	$9.91	$3.65	$1.45	$0.10	$0.99	$0.00	$0.00			$16.10	$21.06
12-18 Months	70.00	$10.67	$3.65	$1.45	$0.10	$1.04	$0.00	$0.00			$16.91	$22.25
18-24 Months	75.00	$11.44	$3.65	$1.45	$0.10	$1.09	$0.00	$0.00			$17.73	$23.45
24-30 Months	80.00	$12.20	$3.65	$1.45	$0.10	$1.14	$0.00	$0.00			$18.54	$24.64
30-36 Months	85.00	$12.96	$3.65	$1.45	$0.10	$1.19	$0.00	$0.00			$19.35	$25.83
36-42 Months	90.00	$13.73	$3.65	$1.45	$0.10	$1.24	$0.00	$0.00			$20.16	$27.03
42-48 Months	95.00	$14.49	$3.65	$1.45	$0.10	$1.29	$0.00	$0.00			$20.98	$28.22

Special Calculation Note : Add .75 cents increase per hour for high pay over 40 feet.

Ratio :

Jurisdiction (* denotes special jurisdictional note) :

3 Journeymen to 1 Apprentice	CARROLL, COSHOCTON, HOLMES, KNOX, STARK, TUSCARAWAS, WAYNE

Special Jurisdictional Note :

Details :

Prevailing Wage Rate
Skilled Crafts

Name of Union: Plumber Pipefitter Local 94

Change # : LCN01-2012jcLoc94

Craft : Plumber/Pipefitter Effective Date : 05/01/2012 Last Posted : 04/25/2012

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Plumber Pipefitter	$31.33		$6.78	$4.59	$0.62	$0.00	$3.65	$0.00	$0.00	$0.00	$46.97	$62.63
Apprentice	Percent											
1st 6 months	40.00	$12.53	$6.78	$0.00	$0.62	$0.00	$1.57	$0.00	$0.00	$0.00	$21.50	$27.77
2nd 6 months	45.00	$14.10	$6.78	$0.00	$0.62	$0.00	$1.57	$0.00	$0.00	$0.00	$23.07	$30.12
3rd 6 months	50.00	$15.66	$6.78	$0.50	$0.62	$0.00	$1.57	$0.00	$0.00	$0.00	$25.14	$32.97
4th 6 months	55.00	$17.23	$6.78	$0.50	$0.62	$0.00	$1.57	$0.00	$0.00	$0.00	$26.70	$35.32
5th 6 months	60.00	$18.80	$6.78	$0.50	$0.62	$0.00	$1.57	$0.00	$0.00	$0.00	$28.27	$37.67
6th 6 months	65.00	$20.36	$6.78	$0.50	$0.62	$0.00	$1.57	$0.00	$0.00	$0.00	$29.83	$40.02
7th 6 months	75.00	$23.50	$6.78	$0.50	$0.62	$0.00	$1.57	$0.00	$0.00	$0.00	$32.97	$44.72
8th 6 months	80.00	$25.06	$6.78	$0.50	$0.62	$0.00	$1.57	$0.00	$0.00	$0.00	$34.53	$47.07
9th 6 months	85.00	$26.63	$6.78	$0.50	$0.62	$0.00	$1.57	$0.00	$0.00	$0.00	$36.10	$49.42
10th 6 months	90.00	$28.20	$6.78	$0.50	$0.62	$0.00	$1.57	$0.00	$0.00	$0.00	$37.67	$51.77

Special Calculation Note : No special calculations for this skilled craft wage rate are required at this time.

Ratio :	**Jurisdiction (* denotes special jurisdictional note) :**
3 Journeymen to 1 Apprentice thereafter	CARROLL*, STARK, WAYNE

Special Jurisdictional Note : In Carroll County the following townships are included: Brown, Augusta, East, Harrison, Washington, Center and Fox.

Details :

Prevailing Wage Rate
Skilled Crafts

Name of Union: Roofer Local 88

Change # : OCN01-2012fbLoc88

Craft : Roofer Effective Date : 07/05/2012 Last Posted : 07/05/2012

	BHR	Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
		H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification											
Roofer	$23.70	$7.80	$5.02	$0.12	$0.00	$0.00	$0.12	$0.00	$0.00	$36.76	$48.61
HELPERS											
1st year Helper - 500 1st 6 months	$10.00	$2.25	$0.00	$0.12	$0.00	$0.00	$0.12	$0.00	$0.00	$12.49	$17.49
1st year Helper - 500 w/12 months	$11.85	$7.80	$5.02	$0.12	$0.00	$0.00	$0.12	$0.00	$0.00	$24.91	$30.83
2nd year Helper - w/12 months	$13.27	$7.80	$5.02	$0.12	$0.00	$0.00	$0.12	$0.00	$0.00	$26.33	$32.96
3rd year Helper - w/12 months	$14.69	$7.80	$5.02	$0.12	$0.00	$0.00	$0.12	$0.00	$0.00	$27.75	$35.10
4th year Helper - w/12 months	$16.12	$7.80	$5.02	$0.12	$0.00	$0.00	$0.12	$0.00	$0.00	$29.18	$37.24
5th year Helper - w/12 months	$17.54	$7.80	$5.02	$0.12	$0.00	$0.00	$0.12	$0.00	$0.00	$30.60	$39.37
6th year Helper	$18.96	$7.80	$5.02	$0.12	$0.00	$0.00	$0.12	$0.00	$0.00	$32.02	$41.50
Apprentice	**Percent**										

1st 6 months w/500 hrs	50.00	$11.85	$7.80	$5.02	$0.12	$0.00	$0.00	$0.12	$0.00	$0.00	$24.91	$30.83
2nd 6 months w/500 hrs	56.00	$13.27	$7.80	$5.02	$0.12	$0.00	$0.00	$0.12	$0.00	$0.00	$26.33	$32.97
3rd 6 months w/500 hrs	62.00	$14.69	$7.80	$5.02	$0.12	$0.00	$0.00	$0.12	$0.00	$0.00	$27.75	$35.10
4th 6 months w/500 hrs	68.00	$16.12	$7.80	$5.02	$0.12	$0.00	$0.00	$0.12	$0.00	$0.00	$29.18	$37.23
5th 6 months w/500 hrs	74.00	$17.54	$7.80	$5.02	$0.12	$0.00	$0.00	$0.12	$0.00	$0.00	$30.60	$39.37
6th 6 months w/500 hrs	80.00	$18.96	$7.80	$5.02	$0.12	$0.00	$0.00	$0.12	$0.00	$0.00	$32.02	$41.50
7th 6 months w/500 hrs	86.00	$20.38	$7.80	$5.02	$0.12	$0.00	$0.00	$0.12	$0.00	$0.00	$33.44	$43.63
8th 6 months w/500 hrs	92.00	$21.80	$7.80	$5.02	$0.12	$0.00	$0.00	$0.12	$0.00	$0.00	$34.86	$45.77

Special Calculation Note : Roofers working in any form of coal tar pitch, whether hot or cold, installing and/or removing will be paid $.25 more per hour. Other $0.12 is for C.I.D.B.

Ratio :

No helper shall be used on any one job unless 1 Journeymen, and 1 Apprentices are working on said job .One (1) Journeymen to One (1) Apprentice to One (1) Helper

Jurisdiction (* denotes special jurisdictional note) :

ASHLAND, CARROLL, COSHOCTON, CRAWFORD, HOLMES, HURON, LORAIN*, MEDINA, PORTAGE, RICHLAND, SENECA, STARK, SUMMIT, TUSCARAWAS, WAYNE

Special Jurisdictional Note : In Lorain County (South of the Turnpike)

Details :

Prevailing Wage Rate
Skilled Crafts

Name of Union: Sheet Metal Local 33 (Akron)

Change # : LCN01-2012fbLoc33Akron

Craft : Sheet Metal Worker Effective Date : 06/01/2012 Last Posted : 05/30/2012

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Sheet Metal Worker	$29.23		$6.71	$10.68	$1.09	$0.00	$1.64	$0.00	$0.00	$0.00	$49.35	$63.97
1st year	45.00	$13.15	$6.71	$2.48	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$22.34	$28.92
2nd year	50.00	$14.62	$6.71	$6.26	$1.09	$0.00	$0.82	$0.00	$0.00	$0.00	$29.50	$36.80
3rd year	55.00	$16.08	$6.71	$6.26	$1.09	$0.00	$0.82	$0.00	$0.00	$0.00	$30.96	$38.99
4th year	65.00	$19.00	$6.71	$6.26	$1.09	$0.00	$0.82	$0.00	$0.00	$0.00	$33.88	$43.38
5th year	80.00	$23.38	$6.71	$6.26	$1.09	$0.00	$0.82	$0.00	$0.00	$0.00	$38.26	$49.96

Special Calculation Note : No special calculations for this skilled craft wage rate are required at this time.

Ratio :

1 Journeymen to 1 Apprentice
2 Journeymen to 1 Apprentice
3 Journeymen to 2 Apprentice
4 Journeymen to 2 Apprentice
5-7 Journeymen to 3 Apprentice
8-10 Journeymen to 4 Apprentice

Jurisdiction (* denotes special jurisdictional note) :

ASHLAND, CARROLL, COSHOCTON, CRAWFORD, HOLMES, MEDINA, PORTAGE, RICHLAND, STARK, SUMMIT, TUSCARAWAS, WAYNE

11-13 Journeymen to 5 Apprentice
14, 15 Journeymen to 6 Apprentice
and maintaining a three to one apprentice ratio
thereafter.

Special Jurisdictional Note :

Details :
Scope of Work: This Agreement covers the rates of pay and conditions of employment of all employees of the Employer engaged in, but not limited to, the a) manufacture, fabrication, assembling, handling, erection, installation, dismantling, conditioning, adjustment, alteration, repairing and servicing of all ferrous or non-ferrous metal work and all other materials used in lieu thereof and of all HVAC systems, air-veyor systems, exhaust systems, and air handling systems regardless of material used, including the setting of all equipment and all reinforcements in connection therewith; (b) all lagging over insulation and all duct-lining; (c) testing, servicing, and balancing of all air-handling equipment and duct work; (d) the preparation of all shop and field sketches, whether manually drawn or computer assisted, used in fabrication and erection, including those taken from original architectural and engineering drawings or sketches, and (e) metal roofing; and (f) all other work included in the jurisdictional claims of Sheet Metal Worker's International Association.

Prevailing Wage Rate
Skilled Crafts

Name of Union: Sheet Metal Local 33 (Akron) Decking

Change # : CN01-2009Loc33(Akron)Deck

Craft : Sheet Metal Worker Effective Date : 09/24/2009 Last Posted : 09/24/2009

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Sheet Metal Worker Decking & Siding	$20.06		$6.31	$6.35	$0.38	$0.00	$0.00	$0.98			$34.08	$44.11
Decking & Siding Specialty Trainees	Percent											
1st 30 days	64.25	$12.89	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00			$12.89	$19.33
2nd thru 6th months	64.25	$12.89	$6.31	$6.35	$0.00	$0.00	$0.00	$0.00			$25.55	$31.99
7th thru 12th months	64.28	$12.89	$6.31	$6.35	$0.38	$0.00	$0.00	$0.98			$26.91	$33.36
2nd year	78.56	$15.76	$6.31	$6.35	$0.38	$0.00	$0.00	$0.98			$29.78	$37.66

Special Calculation Note : No special calculations for this skilled craft wage rate are required at this time.

Ratio :

Jurisdiction (* denotes special jurisdictional note) :

3 Journeymen To 1 Apprentice	ASHLAND, CARROLL, COSHOCTON, CRAWFORD, HOLMES, MEDINA, PORTAGE, RICHLAND, STARK, SUMMIT, TUSCARAWAS, WAYNE

Special Jurisdictional Note :

Details :

Work but not limited to:Exterior application of manufactured and/or job site fabricated metal decking, siding and exterior appurtenances thereto. The erection of pre-engineered metal buildings, pre-manufactured gas stations and appurtenances thereto. The installation of metal roofs and appurtenances. The erection and/or job site fabrication of draft or fire curtains and appurtenances thereto.

Prevailing Wage Rate
Skilled Crafts

Name of Union: Sprinkler Fitter Local 669

Change # : LCN02-2012fbLoc669

Craft : Sprinkler Fitter Effective Date : 08/22/2012 Last Posted : 08/22/2012

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Sprinkler Fitter	$31.88		$8.42	$5.35	$0.45	$0.00	$4.72	$0.00	$0.00	$0.00	$50.82	$66.76
Indentured prior to April 2010												
50%	$16.10		$7.45	$0.00	$0.45	$0.00	$0.74	$0.00	$0.00	$0.00	$24.74	$32.79
55%	$17.39		$8.42	$5.35	$0.45	$0.00	$0.53	$0.00	$0.00	$0.00	$32.14	$40.84
60%	$19.00		$8.42	$5.35	$0.45	$0.00	$0.58	$0.00	$0.00	$0.00	$33.80	$43.30
65%	$20.61		$8.42	$5.35	$0.45	$0.00	$4.38	$0.00	$0.00	$0.00	$39.21	$49.52
70%	$22.22		$8.42	$5.35	$0.45	$0.00	$4.43	$0.00	$0.00	$0.00	$40.87	$51.98
75%	$23.83		$8.42	$5.35	$0.45	$0.00	$4.48	$0.00	$0.00	$0.00	$42.53	$54.45
80%	$25.44		$8.42	$5.35	$0.45	$0.00	$4.53	$0.00	$0.00	$0.00	$44.19	$56.91
85%	$27.05		$8.42	$5.35	$0.45	$0.00	$4.57	$0.00	$0.00	$0.00	$45.84	$59.37
90%	$28.66		$8.42	$5.35	$0.45	$0.00	$4.62	$0.00	$0.00	$0.00	$47.50	$61.83
Apprentice	**Percent**											
Indentured on or after April 2010	45.46	$14.49	$7.45	$0.00	$0.45	$0.00	$0.69	$0.00	$0.00	$0.00	$23.08	$30.33
CLASS 2	50.49	$16.10	$7.45	$0.00	$0.45	$0.00	$0.74	$0.00	$0.00	$0.00	$24.74	$32.78
CLASS 3	54.54	$17.39	$8.42	$5.35	$0.45	$0.00	$0.53	$0.00	$0.00	$0.00	$32.14	$40.83
CLASS 4	59.59	$19.00	$8.42	$5.35	$0.45	$0.00	$0.58	$0.00	$0.00	$0.00	$33.80	$43.30
CLASS 5	64.64	$20.61	$8.42	$5.35	$0.45	$0.00	$1.13	$0.00	$0.00	$0.00	$35.96	$46.26
CLASS 6	69.71	$22.22	$8.42	$5.35	$0.45	$0.00	$1.18	$0.00	$0.00	$0.00	$37.62	$48.74
CLASS 7	74.75	$23.83	$8.42	$5.35	$0.45	$0.00	$1.23	$0.00	$0.00	$0.00	$39.28	$51.20
CLASS 8	79.80	$25.44	$8.42	$5.35	$0.45	$0.00	$1.28	$0.00	$0.00	$0.00	$40.94	$53.66
CLASS 9	84.85	$27.05	$8.42	$5.35	$0.45	$0.00	$1.32	$0.00	$0.00	$0.00	$42.59	$56.12
CLASS 10	89.90	$28.66	$8.42	$5.35	$0.45	$0.00	$1.37	$0.00	$0.00	$0.00	$44.25	$58.58

Special Calculation Note : No special calculations for this skilled craft wage rate are required at this time.

Ratio :

1 Journeyman to 1 Apprentice

Jurisdiction (* denotes special jurisdictional note) :

ADAMS, ALLEN, ASHLAND, ASHTABULA, ATHENS, AUGLAIZE, BELMONT, BROWN, BUTLER, CARROLL, CHAMPAIGN, CLARK, CLERMONT, CLINTON, COLUMBIANA, COSHOCTON, CRAWFORD, DARKE, DEFIANCE, DELAWARE, ERIE, FAIRFIELD, FAYETTE, FRANKLIN, FULTON, GALLIA, GREENE, GUERNSEY, HAMILTON, HANCOCK, HARDIN, HARRISON, HENRY, HIGHLAND, HOCKING, HOLMES, HURON, JACKSON, JEFFERSON, KNOX, LAWRENCE, LICKING, LOGAN, LUCAS, MADISON, MAHONING, MARION, MEDINA, MEIGS, MERCER, MIAMI, MONROE, MONTGOMERY, MORGAN, MORROW, MUSKINGUM, NOBLE, OTTAWA, PAULDING, PERRY, PICKAWAY, PIKE, PORTAGE, PREBLE, PUTNAM, RICHLAND, ROSS, SANDUSKY, SCIOTO, SENECA, SHELBY, STARK, SUMMIT, TRUMBULL, TUSCARAWAS, UNION, VAN WERT, VINTON, WARREN, WASHINGTON, WAYNE, WILLIAMS, WOOD, WYANDOT

Special Jurisdictional Note :

Details :

Sprinkler Fitter work shall consist of the installation,dismantling,maintenance,repairs,adjustments,and corrections of all fire protection and fire control systems including the unloading,handling by hand,power equipment and installation of all piping or tubing,appurtenances and equipment pertaining thereto,including both overhead and underground water mains,fire hydrants and hydrant mains,standpipes and hose connections to sprinkler systems used in connection with sprinkler and alarm systems. Also all tanks and pumps connected thereto,also included shall be CO-2 and Cardox Systems, Dry Chemical Systems,Foam Systems and all other fire protection systems.

Prevailing Wage Rate
Skilled Crafts

Name of Union: Sprinkler Fitter Local 669

Change # : LCN02-2012fbLoc669

Craft : Sprinkler Fitter Effective Date : 08/22/2012 Last Posted : 08/22/2012

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Sprinkler Fitter	$31.88		$8.42	$5.35	$0.45	$0.00	$4.72	$0.00	$0.00	$0.00	$50.82	$66.76
Indentured prior to April 2010												
50%	$16.10		$7.45	$0.00	$0.45	$0.00	$0.74	$0.00	$0.00	$0.00	$24.74	$32.79
55%	$17.39		$8.42	$5.35	$0.45	$0.00	$0.53	$0.00	$0.00	$0.00	$32.14	$40.84
60%	$19.00		$8.42	$5.35	$0.45	$0.00	$0.58	$0.00	$0.00	$0.00	$33.80	$43.30
65%	$20.61		$8.42	$5.35	$0.45	$0.00	$4.38	$0.00	$0.00	$0.00	$39.21	$49.52
70%	$22.22		$8.42	$5.35	$0.45	$0.00	$4.43	$0.00	$0.00	$0.00	$40.87	$51.98
75%	$23.83		$8.42	$5.35	$0.45	$0.00	$4.48	$0.00	$0.00	$0.00	$42.53	$54.45
80%	$25.44		$8.42	$5.35	$0.45	$0.00	$4.53	$0.00	$0.00	$0.00	$44.19	$56.91
85%	$27.05		$8.42	$5.35	$0.45	$0.00	$4.57	$0.00	$0.00	$0.00	$45.84	$59.37
90%	$28.66		$8.42	$5.35	$0.45	$0.00	$4.62	$0.00	$0.00	$0.00	$47.50	$61.83
Apprentice	Percent											
Indentured on or after April 2010	45.46	$14.49	$7.45	$0.00	$0.45	$0.00	$0.69	$0.00	$0.00	$0.00	$23.08	$30.33
CLASS 2	50.49	$16.10	$7.45	$0.00	$0.45	$0.00	$0.74	$0.00	$0.00	$0.00	$24.74	$32.78
CLASS 3	54.54	$17.39	$8.42	$5.35	$0.45	$0.00	$0.53	$0.00	$0.00	$0.00	$32.14	$40.83
CLASS 4	59.59	$19.00	$8.42	$5.35	$0.45	$0.00	$0.58	$0.00	$0.00	$0.00	$33.80	$43.30
CLASS 5	64.64	$20.61	$8.42	$5.35	$0.45	$0.00	$1.13	$0.00	$0.00	$0.00	$35.96	$46.26
CLASS 6	69.71	$22.22	$8.42	$5.35	$0.45	$0.00	$1.18	$0.00	$0.00	$0.00	$37.62	$48.74
CLASS 7	74.75	$23.83	$8.42	$5.35	$0.45	$0.00	$1.23	$0.00	$0.00	$0.00	$39.28	$51.20
CLASS 8	79.80	$25.44	$8.42	$5.35	$0.45	$0.00	$1.28	$0.00	$0.00	$0.00	$40.94	$53.66
CLASS 9	84.85	$27.05	$8.42	$5.35	$0.45	$0.00	$1.32	$0.00	$0.00	$0.00	$42.59	$56.12
CLASS 10	89.90	$28.66	$8.42	$5.35	$0.45	$0.00	$1.37	$0.00	$0.00	$0.00	$44.25	$58.58

Special Calculation Note : No special calculations for this skilled craft wage rate are required at this time.

Ratio :

1 Journeyman to 1 Apprentice

Jurisdiction (* denotes special jurisdictional note) :

ADAMS, ALLEN, ASHLAND, ASHTABULA, ATHENS, AUGLAIZE, BELMONT, BROWN, BUTLER, CARROLL, CHAMPAIGN, CLARK, CLERMONT, CLINTON, COLUMBIANA, COSHOCTON, CRAWFORD, DARKE, DEFIANCE, DELAWARE, ERIE, FAIRFIELD, FAYETTE, FRANKLIN, FULTON, GALLIA, GREENE, GUERNSEY, HAMILTON, HANCOCK, HARDIN, HARRISON, HENRY, HIGHLAND, HOCKING, HOLMES, HURON, JACKSON, JEFFERSON, KNOX, LAWRENCE, LICKING, LOGAN, LUCAS, MADISON, MAHONING, MARION, MEDINA, MEIGS, MERCER, MIAMI, MONROE, MONTGOMERY, MORGAN, MORROW, MUSKINGUM, NOBLE, OTTAWA, PAULDING, PERRY, PICKAWAY, PIKE, PORTAGE, PREBLE, PUTNAM, RICHLAND, ROSS, SANDUSKY, SCIOTO, SENECA, SHELBY, STARK, SUMMIT, TRUMBULL, TUSCARAWAS, UNION, VAN WERT, VINTON, WARREN, WASHINGTON, WAYNE, WILLIAMS, WOOD, WYANDOT

Special Jurisdictional Note :

Details :

Sprinkler Fitter work shall consist of the installation,dismantling,maintenance,repairs,adjustments,and corrections of all fire protection and fire control systems including the unloading,handling by hand,power equipment and installation of all piping or tubing,appurtenances and equipment pertaining thereto,including both overhead and underground water mains,fire hydrants and hydrant mains,standpipes and hose connections to sprinkler systems used in connection with sprinkler and alarm systems. Also all tanks and pumps connected thereto,also included shall be CO-2 and Cardox Systems, Dry Chemical Systems,Foam Systems and all other fire protection systems.

Prevailing Wage Rate
Skilled Crafts

Name of Union: Truck Driver Bldg & HevHwy Class 1
Locals 20,40,92,92b,100,175,284,438,377,505,637,908,957

Change # : CN1-2011jcBldgHevHwy

Craft : Truck Driver Effective Date : 06/29/2011 Last Posted : 06/29/2011

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Truck Driver CLASS 1 4 wheel service, dump, and batch trucks, Oil Distributor - Asphalt Distributor-Tandems	$22.78		$6.81	$5.70	$0.10	$0.00	$0.00	$0.00			$35.39	$46.78
Apprentice	Percent											
First 6 months	80.00	$18.22	$6.11	$4.90	$0.50	$0.00	$0.00	$0.00			$29.73	$38.85
7-12 months	85.00	$19.36	$6.11	$4.90	$0.50	$0.00	$0.00	$0.00			$30.87	$40.55
13-18 months	90.00	$20.50	$6.11	$4.90	$0.50	$0.00	$0.00	$0.00			$32.01	$42.26
19-24 months	95.00	$21.64	$6.11	$4.90	$0.50	$0.00	$0.00	$0.00			$33.15	$43.97
25-30 months	100.00	$22.78	$6.11	$4.90	$0.50	$0.00	$0.00	$0.00			$34.29	$45.68

Special Calculation Note : No special calculations for this skilled craft wage rate are required at this time.

Ratio :

3 Journeymen to 1 Apprentice per company/project

Jurisdiction (* denotes special jurisdictional note) :

ADAMS, ALLEN, ASHLAND, ASHTABULA, ATHENS, AUGLAIZE, BELMONT, BROWN, BUTLER, CARROLL, CHAMPAIGN, CLARK, CLERMONT, CLINTON, COLUMBIANA, COSHOCTON, CRAWFORD, DARKE, DEFIANCE, DELAWARE, ERIE, FAIRFIELD, FAYETTE, FRANKLIN, FULTON, GALLIA, GREENE, GUERNSEY, HAMILTON, HANCOCK, HARDIN, HARRISON, HENRY, HIGHLAND, HOCKING, HOLMES, HURON, JACKSON, JEFFERSON, KNOX, LAWRENCE, LICKING, LOGAN, LORAIN, LUCAS, MADISON, MAHONING, MARION, MEDINA, MEIGS, MERCER, MIAMI, MONROE, MONTGOMERY, MORGAN, MORROW, MUSKINGUM, NOBLE, OTTAWA, PAULDING, PERRY, PICKAWAY, PIKE, PORTAGE, PREBLE, PUTNAM, RICHLAND, ROSS, SANDUSKY, SCIOTO, SENECA, SHELBY, STARK, SUMMIT, TRUMBULL, TUSCARAWAS, UNION, VAN WERT, VINTON, WARREN, WASHINGTON, WAYNE, WILLIAMS, WOOD, WYANDOT

Special Jurisdictional Note :

Details :

** Asphalt - Oil spray bar man when operating from cab shall receive $0.20 cents per hour above their Basic Hourly Rate.

Prevailing Wage Rate
Skilled Crafts

Name of Union: Truck Driver Bldg & HevHwy Class 2
Locals 20,40,92,92b,100,175,284,438,377,505,637,908,957

Change # : CN1-2011BldgHevHwy

Craft : Truck Driver Effective Date : 06/29/2011 Last Posted : 06/29/2011

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Truck Driver CLASS 2 Tractor Trailer-Semi Tractor Trucks-Pole Trailers-Ready Mix Trucks-Fuel Trucks-Asphalt-Oil Spray bar men- 5 Axle & Over -Belly Dumps-End Dumps-Articulated Dump Trucks- Low boys-Heavy duty Equipment(irrespective of load carried) when used exclusively for transportation-Truck Mechanics (when needed)	$23.20		$6.81	$5.70	$0.10	$0.00	$0.00	$0.00			$35.81	$47.41
Apprentice	**Percent**											
First 6 months	80.00	$18.56	$6.81	$5.70	$0.10	$0.00	$0.00	$0.00			$31.17	$40.45
7-12 months	85.00	$19.72	$6.81	$5.70	$0.10	$0.00	$0.00	$0.00			$32.33	$42.19
13-18 months	90.00	$20.88	$6.81	$5.70	$0.10	$0.00	$0.00	$0.00			$33.49	$43.93
19-24 months	95.00	$22.04	$6.81	$5.70	$0.10	$0.00	$0.00	$0.00			$34.65	$45.67
25-30 months	100.00	$23.20	$6.81	$5.70	$0.10	$0.00	$0.00	$0.00			$35.81	$47.41

Special Calculation Note : No special calculations for this skilled craft wage rate are required at this time.

Ratio :

3 Journeymen to 1 Apprentice per company/project

Jurisdiction (* denotes special jurisdictional note) :

ADAMS, ALLEN, ASHLAND, ASHTABULA, ATHENS, AUGLAIZE, BELMONT, BROWN, BUTLER, CARROLL, CHAMPAIGN, CLARK, CLERMONT, CLINTON, COLUMBIANA, COSHOCTON, CRAWFORD, DARKE, DEFIANCE, DELAWARE, ERIE, FAIRFIELD, FAYETTE, FRANKLIN, FULTON, GALLIA, GREENE, GUERNSEY, HAMILTON, HANCOCK, HARDIN, HARRISON, HENRY, HIGHLAND, HOCKING, HOLMES, HURON, JACKSON, JEFFERSON, KNOX, LAWRENCE, LICKING, LOGAN, LORAIN, LUCAS, MADISON, MAHONING, MARION, MEDINA, MEIGS, MERCER, MIAMI, MONROE, MONTGOMERY, MORGAN, MORROW, MUSKINGUM, NOBLE, OTTAWA, PAULDING, PERRY, PICKAWAY, PIKE, PORTAGE, PREBLE, PUTNAM, RICHLAND, ROSS, SANDUSKY, SCIOTO, SENECA, SHELBY, STARK, SUMMIT, TRUMBULL, TUSCARAWAS, UNION, VAN WERT, VINTON, WARREN, WASHINGTON, WAYNE, WILLIAMS, WOOD, WYANDOT

Special Jurisdictional Note :

Details :

** Asphalt - Oil spray bar man when operating from cab shall receive $0.20 cents per hour above their Basic Hourly Rate.

APPENDIX A

AFFIDAVIT OF COMPLIANCE

PREVAILING WAGES

I _____,
(Name of person signing affidavit) (Title)

do hereby certify that the wages paid to all employees of the_____
(Company Name)

for all hours worked on the _____
(Project and Location)

project, during the period from _____ to _____
(Project Dates)
are in compliance with Federal prevailing wage requirements.

I further certify that no rebates or deductions have been or will be made, directly or indirectly, from any wages paid in connection with this project, other than those provided by law.

_____
(Signature of Officer or Agent)

Sworn to and subscribed in my presence this _____ day of _____, 20 _____.

_____
(Notary Public)

The above affidavit must be executed and sworn to by the officer or agent of the Contractor or Subcontractor who supervises the payment of employees. This affidavit must be submitted to the owner (public authority) before the surety is released or final payment due under the terms of the Contract is made.

APPENDIX

B

Minority Contract Provisions

APPENDIX B

SECTION 105.06 - MINORITY CONTRACT PROVISIONS; MINORITY ENTERPRISE UTILIZATION COMMITMENT;

A) The Bidder agrees to expend at least $ _____ of the Contract in the event the contract is awarded to such bidder for minority/women's business enterprises. For purposes of this pledge, the term "minority/women's business enterprise" means a bona fide business established as a sole proprietorship, partnership or corporation owned, operated and controlled by one or more minority persons or women who have at least fifty-one percent (51%) ownership. "Minority" includes African Americans, Asian/Pacific Islanders, Hispanic/Latino Americans and Native American Indians. The minority or woman must have operational and managerial control, interest in capital, and earnings commensurate with the percentage of ownership. Minority/women's business enterprises may be employed as construction contractors, subcontractors, vendors or suppliers. The Bidder must indicate the minority business enterprise it intends to utilize in this document as follows:

Name/Address of Minority Firm	Nature of Participation	Dollar Value of Participation

Total Bid Amount: _____ Total _____

Percentage of Minority Enterprise Participation: _____ %

B) The Bidder agrees to furnish implementation reports to indicate the minority business enterprises which it has or intends to utilize. The first report is due five (5) days after notification to the lowest and best bidder. The second report is due at 40% completion.

C) It is the goal of the City that at least 10 percent (10%) of the total of all contracts be expended for a bona fide minority business enterprise.

D) If the 10 percent (10%) minority business utilization cannot be met, a waiver can be granted by the Board of Control upon recommendation by the Service Director. To justify a waiver, it must be shown that every feasible attempt has been made to comply, and it must be demonstrated that sufficient, relevant, qualified minority business enterprises (which can perform sub-contracts or furnish supplies) are unavailable in the market area of the project to enable meeting the 10 percent (10%) minority business enterprise goal.

E) Failure to comply with the Minority Business Enterprise Utilization Commitment will not be grounds for the forfeiture of a bid bond so long as a "best effort" approach can be demonstrated. If such compliance cannot be obtained, the bidder shall furnish written evidence to justify that he has made "best effort" to comply with the Minority Business Enterprise Assistance Program. A representative of the City of Canton will monitor and determine whether or not a good faith effort to comply with the Minority Business Enterprise Commitment has been made.

F) In light of the above, the Board of Control will still award the contract to the lowest and best bidder. Breach of the commitment constitutes breach of the Bidder's contract, if awarded.

G) For information regarding the City's Minority Business Enterprise Utilization Requirement, please contact the City of Canton's Compliance Office.

H) The undersigned hereby certifies that he/she has read the terms of the commitment and is authorized to bind the Bidder to the commitment herein set forth.

Name/Title of Authorized Officer	Signature of Authorized Officer
	Date

The additional bid requirements are as a result of legislation passed by City Council and are incorporated within the City Code and/or Codified Ordinances of the City of Canton. Detailed copies of these code requirements are available within the City Law Department, 7th Floor, City Hall.

PROJECT: WSI-ESI Interconnection Vaults, G.P. 1114

LETTER OF ASSURANCE

The _____ company hereby certifies that they will comply with the required goals and timetables pertaining to minority and female participation in all trades. The _____ company agrees to comply with the required 10% minority participation goal.

All bidders, contractors and subcontractors to perform work on _____ _____ are subject to the above stated requirements and agree to comply with all local, state and Federal EEO, MBE, and labor requirements applicable to this project and further agree to complete and/or submit all necessary documents to the City of Canton's Compliance Office prior to the awarding of any contract for this project.

The _____ company also agrees to expend at least 10% of the dollar amount of any contract awarded for this project to Minority Business Enterprises.

Failure to submit this letter of assurance will make the bidder's bid non-valid and failure to comply with the applicable local, state and Federal EEO, MBE and labor requirements are basis for termination of any contract awarded for this project.

_____	_____
Company or Partnership	Federal ID #
_____	_____
President or Other Official Title	Telephone #
_____	
Date	

(Seal)
Subscribed and sworn to before me, this _____ day of _____, 20 _____.

Notary Public in and for the County of
_____, State of _____.
My commission expires on the _____ day of
_____, 20 _____.

TO BE FILLED OUT WITH BID

APPENDIX

C

Bidder and Contractor Employment Practices Report

PLEASE FILL OUT THIS FORM AND RETURN PROMPTLY TO THE ADDRESS BELOW

BIDDER AND CONTRACTOR EMPLOYMENT PRACTICES REPORT

Minority Coordinator
218 Cleveland Avenue SW
Canton, Ohio 44702

I. INSTRUCTIONS

A. EQUAL EMPLOYMENT OPPORTUNITY REQUIREMENT: This form is designed to provide an evaluation of your policies and practices relating to the extension of equal employment opportunity to all persons without regard to race, religion, color, sex or national origin.

Ordinance No. 179-74 of the City of Canton and the rules and regulations pursuant thereto provide for a contract compliance inspection of personnel policies and practices related to any contract with the City including contracts for work, labor, services, supplies, equipment, materials, leases, concession agreements, and permits.

B. CONTRACTOR AND BIDDER PERFORMANCE: Completion of this Contractor and Bidder Employment Practices Report is one of the steps which demonstrates compliance with the City's Equal Employment Opportunity Program. Responsibility for demonstrating compliance with the Program by the contractor and his subcontractors rests with the contractor or subcontractor. Such demonstration is a prerequisite for continued eligibility for bidding on city contracts, or for continuing in contract with the City.

II. CONTRACTOR AND BIDDER INFORMATION

1. REPORTING STATUS ☐ a. Prime Contractor ☐ b. Prime Subcontractor ☐ c. Supplier ☐ d. Other (Specify)
2. NAME, ADDRESS AND TELEPHONE NUMBER OF BIDDER COVERED BY THIS REPORT
3. NAME, ADDRESS AND TELEPHONE NUMBER OF PRINCIPAL OFFICIAL OR MANAGER OF BIDDER
4. NAME, ADDRESS AND TELEPHONE NUMBER OF PRINCIPAL OFFICE OF BIDDER
5. CONTRACTING CITY AGENCY (OR AGENCIES)
6. SIGNATURE AND TITLE OF AUTHORIZED EQUAL EMPLOYMENT OPPORTUNITY REPRESENTATIVE |DATE

EVALUATION (level blank)

☐ Compliance

☐ Non-Compliance ☐ Follow-up _____

III. POLICIES AND PRACTICES

The bidder and the Contractor will indicate his willingness or unwillingness to comply with the requirements of the Equal Employment Opportunity Program of the City of Canton by encircling the appropriate or applicable letter to the left of each item below. The letters are to be interpreted as follows:

A - This is now a practice of the Company.
B - The Company will adopt this policy.
C - The Company cannot or will not adopt this policy. (If "C" is circled, state reason. Use separate sheet if additional space is needed.)

It is understood that the Company's willingness to participate in the Equal Employment Opportunity Program will be evaluated by the Office of Directors of Contract Compliance. This evaluation will directly influence our decision on the qualifications of each bidder and contractor, and is an integral part of your bid.

CIRCLE ONE	ITEMS	STATE REASON IF (C) IS CIRCLED
A B C	1. The Company will adopt a policy of non-discrimination on the basis of race, religion, color, sex, or national origin with regard to recruitment, hiring, training, upgrading, promotion and discipline of employees or applicants for employment.	
A B C	2. The Company will develop procedures which will assure that this policy is understood and carried out by managerial, administrative, supervisory personnel.	
A B C	3. The Company will state its non-discriminatory policy in writing and communicate it to the following: a. All employees b. All recruitment sources c. All subcontractors d. All relevant employee organizations including labor unions	
A B C	4. The Company will use recruitment sources such as employment agencies, unions, and schools which have a policy of referring applicants on a non-discriminatory basis.	
A B C	5. The Company will participate in training programs for the benefit of employees or prospective employees, according to the intent of City Ordinance Number 179-74.	
A B C	6. Company recruiters will seek a broad recruitment base in order that a representative cross-section of applications might be obtained, and will refrain from a hiring policy which limits job applicants to persons recommended by company personnel.	
A B C	7. The Company will take steps to integrate any position, departments, or plant locations which have no minority persons including African Americans or are almost completely staffed with one particular ethnic or racial group.	
A B C	8. The Company will review its qualifications for each job to determine whether such standards eliminate unemployed persons who could, if hired, perform the duties of the job adequately. The following qualifications should be reviewed: a. education b. experience c. tests d. arrest records	
A B C	9. Residence in a particular geographical area will not be a qualifying or disqualifying criterion for employment with the Company.	
A B C	10. The Company will provide that all bargaining agreements with employee organizations, including labor unions, have non-discrimination clauses requiring equal employment opportunity.	

IV. EMPLOYMENT DATA

Please note that this data may be obtained by visual survey or post-employment records. Neither visual surveys nor post-employment records are prohibited by any Federal, State or local law. All specified data are required to be filled in by law.

JOB CATEGORIES	ALL EMPLOYEES			MINORITY GROUP EMPLOYEES							
	TOTAL			MALE				FEMALE			
	MALE & FEMALE	MALE	FEMALE	African American	Asian American	Native American	Hispanic	African American	Asian American	Native American	Hispanic
Officials, Mgrs and Supervisors											
Professionals											
Technicians											
Part-Time Seasonal											
Office and Clerical											
Craftsmen (Skilled)											
Operatives (Semi-skilled)											
Laborers (Unskilled)											
Service Workers											
TOTAL											
Total employment from previous report (if any)											

REMARKS Use this space to give any identification data appearing on last report which differs from that given above, explain major changes in employment, changes in composition of reporting units, and other pertinent information.

The undersigned certifies that he is legally authorized by the bidder to make the statements and representations contained in this report. That he has read all of the foregoing statements and representations and that they are true and correct to the best of his knowledge and belief. The undersigned, understands that if any of the statements and representations are made knowing them to be false or there is a failure to implement any of the stated intentions or objectives, set forth herein, without prior notice to the Office of Contract Compliance, the bidder will be subject to the loss of all future awards.

FIRM OR CORPORATE NAME _____ DATE OF SIGNING _____

SIGNATURE _____ TITLE _____

SIGNATURE _____ TITLE _____

V. ADDITIONAL INFORMATION (OPTIONAL)

Describe any other actions taken which show that all employees are recruited, hired, trained, and promoted without regard to their race, religion, color, sex, or national origin. Use separate sheet if additional space is required.

DESCRIPTION OF OCCUPATIONAL CATEGORIES

Officials, managers and supervisors - Occupations requiring administrative personnel who set broad policies, exercise over-all responsibility for execution of these policies, and direct individual departments or special phases of a firm's operations. Includes officials, executives, middle management, plant managers, department managers and superintendents, salaried foremen who are members of management, purchasing agents and buyers, and kindred workers.

Professionals - Occupations requiring either college graduation or experience of such kind and amount as to provide a comparable background. Includes accountants and auditors, airplane pilots and navigators, architects, artists, chemists, designers, dietitians, editors, engineers, lawyers, librarians, mathematicians, natural scientists, physicians, social scientists, teachers, and kindred workers.

Technicians - Occupations requiring a combination of basic scientific knowledge and manual skill which can be obtained through about 2 years of post high school education, such as is offered in many technical institutes and junior colleges, or through equivalent on-the-job training. Includes draftsmen, engineering aids, junior engineers, mathematical aids, nurses, photographers, radio operators, scientific assistants, surveyors, technical illustrators, technicians, (medical, dental, electronic physical sciences), and kindred workers.

Sales workers - Occupations engaging wholly or primarily in direct selling. Includes advertising agents and salesmen, insurance agents and brokers, stock and bond salesmen, demonstrators, salesmen and sales clerks and kindred workers.

Office and clerical - Includes all clerical type work regardless of level of difficulty, where the activities are predominantly nonmanual though some manual work not directly involved with altering or transporting the products is included. Includes bookkeepers, cashiers, collectors (bills and accounts), messengers and office boys, office machine operators, shipping and receiving clerks, stenographers, typists and secretaries, telegraph and telephone operators, and kindred workers.

Craftsmen (Skilled) - Manual workers of relatively high skill level having a thorough and comprehensive knowledge of the processes involved in their work. Exercise considerable independent judgement and usually receive an extensive period of training. Includes the building trades hourly paid foremen and leadmen who are not members of management, mechanics and repairmen, skilled machining occupations, compositors and typesetters, electricians, engravers, job setters (metal), motion picture projectionists, pattern and model makers, stationary engineers, tailors and tailoresses, and kindred workers.

Operatives - (Semi-Skilled) - Workers who operate machine or processing equipment or perform other factory-type duties of intermediate skill level which can be mastered in a few weeks and require only limited training.

Laborers (Unskilled) - Workers in manual occupations which generally require no special training. Perform elementary duties that may be learned in a few days and require no independent judgement. Includes garage laborers, car washers and greasers, gardeners (except farm) and groundskeepers, longshoremen and stevedores, lumbermen, raftsmen and wood choppers, laborers performing lifting, digging, mixing, loading, and pulling operations, and kindred workers.

Service workers - Workers in both protective and nonprotective service occupations. Includes attendants (hospital and other institution, professional and personal service), barbers, charwomen and cleaners, cooks (except household), counter and fountain workers, elevator operators, firemen and fire protection, guards, watchmen, and doorkeepers, stewards, janitors, policemen and detectives, porters, waiters and waitresses, and kindred workers.

Apprentices - Persons employed in a program including work training and related instruction to learn a trade or craft which is traditionally considered an apprenticeship, regardless of whether the program is registered with federal or State agency.

APPENDIX

D

EEO Compliance

EEO

POLICY STATEMENT

THE CITY OF CANTON, OHIO IN CONFORMANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS REQUIRE EACH EMPLOYER, CONTRACTOR, AND MATERIAL SUPPLIERS WORKING CITY PROJECTS TO BE SIGNATURES OF THE FOLLOWING STATEMENTS:

1. IT IS THE POLICY OF _____ THAT EQUAL EMPLOYMENT OPPORTUNITY BE AFORDED TO ALL QUALIFIED PERSONS WITHOUT REGARD TO RACE, RELIGION, SEX OR NATIONAL ORIGIN.
2. IN SUPPORT OF THIS DOCUMENT _____ WILL NOT DISCRIMINATE AGAINST ANY EMPLOYEE OR APPLICANT BECAUSE OF RACE, RELIGION, COLOR, SEX OR NATIONAL ORGIN.
3. THE _____ WILL TAKE AFFIRMATIVE ACTION TO INSURE THAT APPLICANTS ARE EMPLOYED AND THAT EMPLOYEES ARE TREATED DURING EMPLOYMENT WITHOUT REGARD TO THEIR RACE, RELIGION, COLOR SEX OR NATIONAL ORIGIN. SUCH ACTION WILL INCLUDE BUT NOT BE LIMITED TO:

   RECRUITMENT, ADVERTISING OR SOLICITATION FOR EMPLOYMENT, HIRING, PLACEMENT, UPGRADING, TRANSFER OR DEMOTION, SELECTION FOR TRAINING INCLUDING APPRENTICESHIP RATES OF PAY OR OTHER FORMS OF COMPENSATION, LAYOFFS OR TERMINATION.
4. THE OF _____ WILL MAKE EVERY EFFORT TO COMPLY WITH MINORITY UTILIZATION GOALS AS FOLLOWS: (9%) NINE PERCENT MINORITIES IN WORKFORCE ON THIS JOB, (6.9%) SIX POINT NINE PERCENT FEMALE UTILIZATION ON THIS JOB, (10%) TEN PERCENT OF CONTRACT AMOUNT EXPENDED WITH MINORITY BUSINESS ENTERPRISES.
5. THE OF _____ SHALL REQUIRE EACH SUB-CONTRACTOR WE HIRE ON THIS PROJECT TO ADHERE TO, SIGN, AND RETURN THIS STATEMENT TO THE CITY.

_____ (Date)

_____ (Name of Company)

_____ (Signature and Title of Company Officer)

APPENDIX

E

Project Utility Note

While this note has been provided by the City to assist the contractor with utility coordination, it is the sole responsibility of the contractor to coordinate and insure the relocation of modifications to all utilities. The City and State are not responsible for any cost associated with the non-timely relocation or delays caused by utility work or the cost of the relocation work itself.

Project Utility Note

Electric/Telephone Utilities: Utilities have existing overhead lines. All precautions must be utilized to avoid contact with the overhead lines.

Natural Gas Utilities: No known gas lines in the project area.

Water Utilities: Existing 8" waterline to be relocated (See Plans).

Storm Utilities: Storm Existing drainage ditch to be reconstructed. (See Plans).

Sanitary Sewer Utilities: (See Plans)

APPENDIX

F

CHANGE ORDER POLICY

Canton Engineering Change Order Policy

The need for a Change Order for work or materials not included in the scope of the contract or exceeding plan quantities may occur at any time during the contract. The LPA (City) Construction Manager or the LPA Contractor may initiate the Change Order process. The LPA Project Inspector will document the date that the change is first encountered. The LPA Construction Manger will determine if a change in the contract is needed. (Note: LPA Project Inspector may be a Consultant Construction Contract Administrator or the Canton Project Inspector assigned to the project.) The project record shall include record of all changes.

Change Orders will be categorized into the following Tiers:

Tier 1:

A quantity adjustment for projects less than $500,000.00 cannot exceed $25,000.00 to qualify as a Tier 1 Change Order. A quantity adjustment for projects greater than $500,000.00 cannot exceed the lesser of 5% or $100,000.00 to qualify as a Tier 1 Change Order. The change of the quantities will be adjusted on a Change Order that will address these changes after an accumulation of adjustments for the project is received. Requests for adjustment may occur at any time before the final payment is made.

Tier 2:

Changes that cannot be addressed using contract unit prices, exceed the Tier 1 limits, extend the contract limits, or change the environmental impact will be presented formally on a Change Order. Contractor shall submit an estimated cost and scope of the work to be performed to the LPA Project Manager. The LPA Project Manager will assemble the documentation, including purpose and analysis of the cost of the proposed change for submission to the LPA Construction Manager. LPA Construction Manager shall review the submitted documentation for availability of funds, acceptability of costs and need for the said changes. Further, the LPA Construction Manager will secure concurrence from ODOT Construction Monitor and make recommendation to the Canton City Engineer for acceptance.

The Change Order will then be recommended to the Board of Control for approval. If the sum of all Change Orders exceeds the lesser of $100,000.00 or 10% of the total of the original contract cost, the Change Order will be presented to the Canton City Council for approval before being submitted to the Board of Control.

Execution of the work will not be performed until authorization is given to the contractor from the LPA. In the event that an agreed price cannot be negotiated, LPA will adhere to force account procedures.

Authorization of Change Order Work:

Tier 1:

The Canton City Engineering will authorize the work prior to submission of the Change Order. Contractor cannot proceed until such authorization.

Tier 2:

The contractor must receive written authorization, from the Canton City Engineer, before the execution of any of the Change Order work. This authorization will not be given until the Change Order has been approved by the Board of Control, Canton City Council, and ODOT, as needed. The Canton City Engineer may override Tier 2 Authorization procedure for any circumstances to assure safety, environment, or protection of property.

NOTE: Canton City Council must approve all Change Orders prior to authorization for both Tier 1 and Tier 2 should the individual or aggregate cost of all Change Orders exceed the lesser of 100,000.00 or 10% of the project original cost.

APPENDIX

G

CLAIMS MANAGEMENT POLICY

City of Canton Engineering Department's Claims Management Policy

The City of Canton recognizes the need to contend with claims experienced by the contractor that are not addressed by the contract. This policy acts as directive to provide stability and expertise in the management of its claims and to ensure they are investigated, evaluated, and resolved in a timely and professional manner.

Claims

A dispute is not identified as a claim until a *Notice of Intent to File a Claim.* The *Notice of Intent to File a Claim* cannot be made until Steps 1 and 2 are completed. A claim is defined as formal assertion by the contractor for something due or believed to be due to the contractor. This claim may include monetary compensation and/or time extension for the completion of the contract. All claims must be presented by the Prime Contractor. Claims submitted by a sub-contractor or supplier against the City or Prime Contractor shall not be accepted.

Purpose

This policy attempts to resolve disputes in a fair and cost-effective manner. The documentation resulting from this procedure will provide information needed to make a reasonable and un-biased decision. City of Canton Engineering acknowledges that costs can be kept to a minimum when the resolution is found at the departmental level.

Process

The Contractor must follow this policy to be eligible for any compensation (time or monetary) for any and all claims not covered by the Change Order Policy. All steps in the policy must be completed prior to moving to the next step. The Contractor shall continue with all Work, including that which is in dispute. The City will continue to pay for work being performed.

Prior to entering into the formal claim resolution process, both the contractor superintendent and the City's Inspector and Construction Manager agree to attempt to resolve any disputes in a good faith effort that is fair and equitable to both the contractor and the City within the guidelines and requirements established by the contract. If this good faith effort does not resolve the problem, the contractor may proceed into the Claims Management Procedure.

Step 1 City Project Manager

The City Project Manager shall meet with the Contractor's superintendent and City Construction Inspector within two (2) working days of receipt of the Contractor Written Early Notice set forth in 104.02.G of the ODOT Construction and Material Specifications. The City Project Manager will negotiate in an effort to reach a resolution according to the Contract Documents. The City Project Manager will issue a written decision of Step 1 within fourteen (14) calendar days of the meeting. If the dispute is not resolved, the Contractor must either abandon or escalate the dispute to Step 2. The claim along with all pertinent information and contract provisions shall be presented to the City Project Manager by the contractor and City representatives.

Step 2 City Engineer

Within seven (7) calendar days of receipt of the Step 1 decision, the Contractor must submit a written request for a Step 2 meeting to the City Engineer. The City Engineer will assign the dispute a dispute number. Within fourteen (14) calendar days of receipt of the request for a Step 2 meeting, the Contractor shall submit the Dispute Documentation as follows:

1. The Contractor shall submit three (3) complete copies of the documentation of the dispute to the City Engineer.
2. The Dispute Documentation shall be identified on a cover page by GP# (project number), Contractor name, subcontractor or supplier if involved in the dispute, and dispute number.

3. The Dispute Documentation shall be an original document that clearly and in detail gives the required information for each item of additional compensation and time extension requested.

4. A narrative of the disputed work or project circumstance at issue. This section must include the dates of the disputed work and the date of early notice.

5. References to the applicable provisions of the plans, specifications, proposal, or other contract documents. Copies of the cited provisions shall be included in the Dispute Documentation.

6. The dollar amount of additional compensation and length of contract time extension being requested.

7. The cost and supporting documents that served as the basis for the requested compensation stated in number six (6) above.

8. A detailed schedule analysis must be included in the Dispute Documentation for any dispute concerning additional contract time, actual or constructive acceleration, or delay damages. At a minimum, the schedule analysis must include the Schedule Update immediately preceding the occurrence of the circumstance alleged to have caused delay and must comply with accepted industry practices. Failure to submit the required schedule analysis will result in the denial of that portion of the Contractor's request.

9. Copies of relevant correspondence and other pertinent documents.

The City Engineer shall review and recommend a resolution to the claim. If recommended by the City Engineer, the process will cease and the claim will be processed as a Change Order. Otherwise, the City Engineer will meet with the contractor's representative, the City Project and Construction Managers within fourteen (14) days to hear each party's stance and as a last chance opportunity to resolve the claim before escalating to Step 3. The City Engineer will issue a written determination of Step 2 to the contractor and project file within fourteen (14) days. If the dispute is not resolved, the Contractor must either abandon or escalate the dispute to Step 3.

Step 3 Canton Service Director

Within fourteen (14) calendar days of receipt of the Step 2 decision, the Contractor must submit a written *Notice of Intent to File a Claim* to the Canton City Service Director. This notice shall state the Contractor's request for a Canton Service Director hearing on the claim. The dispute becomes a claim when the Service Director receives the *Notice of Intent to File a Claim*. The City of Canton Law and Purchasing Departments will provide advice to the Canton Service Director. The Canton Service Director will be responsible for deciding claims.

The Contractor shall submit six (6) complete copies of its Claim Documentation to the City Engineer within thirty (30) calendar days of receipt of the *Notice of Intent to File a Claim*. This time frame may be extended upon mutual agreement of the parties and with approval of the Committee. In

addition to the documentation submitted at Step 2, the narrative shall be enhanced to include sufficient description and information to enable understanding by a third party who has no knowledge of the dispute or familiarity with the project. This documentation must also include a discussion of the efforts taken to resolve the dispute. When submitting the Claim Documentation, the Contractor must certify the claim in writing. Such certification shall attest to the following:

1. The claim is made in good faith.
2. To the best of the Contractor's knowledge, all data offered to support the claim is accurate and complete.
3. The claim amount accurately reflects the Contractor's actual incurred costs and additional time impacts.

This claim certification shall also be notarized pursuant to the laws of the State of Ohio.
The following is an example of the correct form for a claim certification:

(The Contractor) certifies that this claim is made in good faith, that all supporting data is accurate and complete to the best of (the Contractor's) knowledge and belief, and that the claim amount accurately reflects the contract amendment for which (the Contractor) believes the City of Canton is liable.
By: _____
(The Contractor, Name and Title)
Date of Execution: _____

Within thirty (30) calendar days of receipt of the Contractor's Claim Documentation, the City Engineer shall submit six (6) complete copies of its Claim Documentation to the Canton Service Director. In the event that the Contractor is granted a time extension for the submission of its Claim Documentation, the City Engineer will be granted an equal time extension for submission of its Claim Documentation. At a minimum, the City Engineer's Claim Documentation must include:

1. A narrative of the disputed work or project circumstance at issue with sufficient description and information to enable understanding by a third party who has no knowledge of the dispute or familiarity with the project. This section must include the dates of the disputed work and the date of early notice. The narrative must also discuss the prior efforts taken to resolve the dispute.
2. References to the applicable provisions of the plans, specifications, proposal, or other contract documents. Copies of the cited provisions shall be included in the claim document.
3. Response to each argument set forth by the Contractor.
4. Any counter-claims, accompanied by supporting documentation, the Canton Service Director Claims Committee wishes to assert.
5. Copies of relevant correspondence and other pertinent documents.

Within fourteen (14) calendar days of receipt of the Construction Manager's Claim Documentation, the City Engineer will forward one (1) complete copy to the Contractor and will schedule a hearing on the dispute. Once a hearing date has been established, both the Contractor and Construction Manager shall provide the Canton City Engineer with the list of names and telephone numbers of each person who may present information at the hearing. Reasonable time, generally not to exceed 60 days, will be provided for submission and review of additional documentation by either party prior to the hearing date. However, unless otherwise permitted by the Committee, the exchange of documentation and all disclosures specified in this step of the process shall be completed at least fourteen (14) calendar days prior to the hearing. Upon

request or at the Committee's discretion, the Committee may delay the hearing one (1) time to allow more time for review and requests for more documentation. In the event of multiple claims, the Committee may order that they be considered in a single hearing. The Committee may hold this hearing after the completion of the project or until such time that it is assured that all disputes on the project have been processed through Steps 1 and 2. The Contractor and Construction Manager will each be allowed adequate time to present their respective positions before the Committee. The Contractor and Construction Manger will also each be allowed adequate time for one (1) rebuttal limited to the scope of the opposing party's presentation. The Contractor's position will be presented by a Contractor's representative who is thoroughly knowledgeable of the claim. Similarly, the Construction Manager's position will be presented by the Construction Manager or a representative who is thoroughly knowledgeable of the claim. Each party may have others assist in the presentation. The Committee may, on its own initiative, request information of the Contractor in addition to that submitted for the hearing. If the Contractor fails to reasonably comply with such request, the Committee may render its decision without such information. Upon completion of the hearing and consideration of any additional information submitted upon request, the Committee will submit a written recommendation on the disposition of the claim to the Canton Service Director. The Canton Service Director will ratify, modify, or reject the recommendation of the Committee and render its decision within sixty (60) calendar days of the hearing. Within thirty (30) calendar days of receipt of the Committee's decision, the Contractor must either accept or reject the decision in writing. In the event the Contractor fails to do so, the Committee may revoke any offers of settlement contained in the decision. The decision of the Committee is the final step of Canton Engineering Department Dispute Resolution Process and may not be appealed within the Department. The Committee is not bound by any offers of settlement or findings of entitlement made during Steps 1 and 2 of the Dispute Resolution Process.

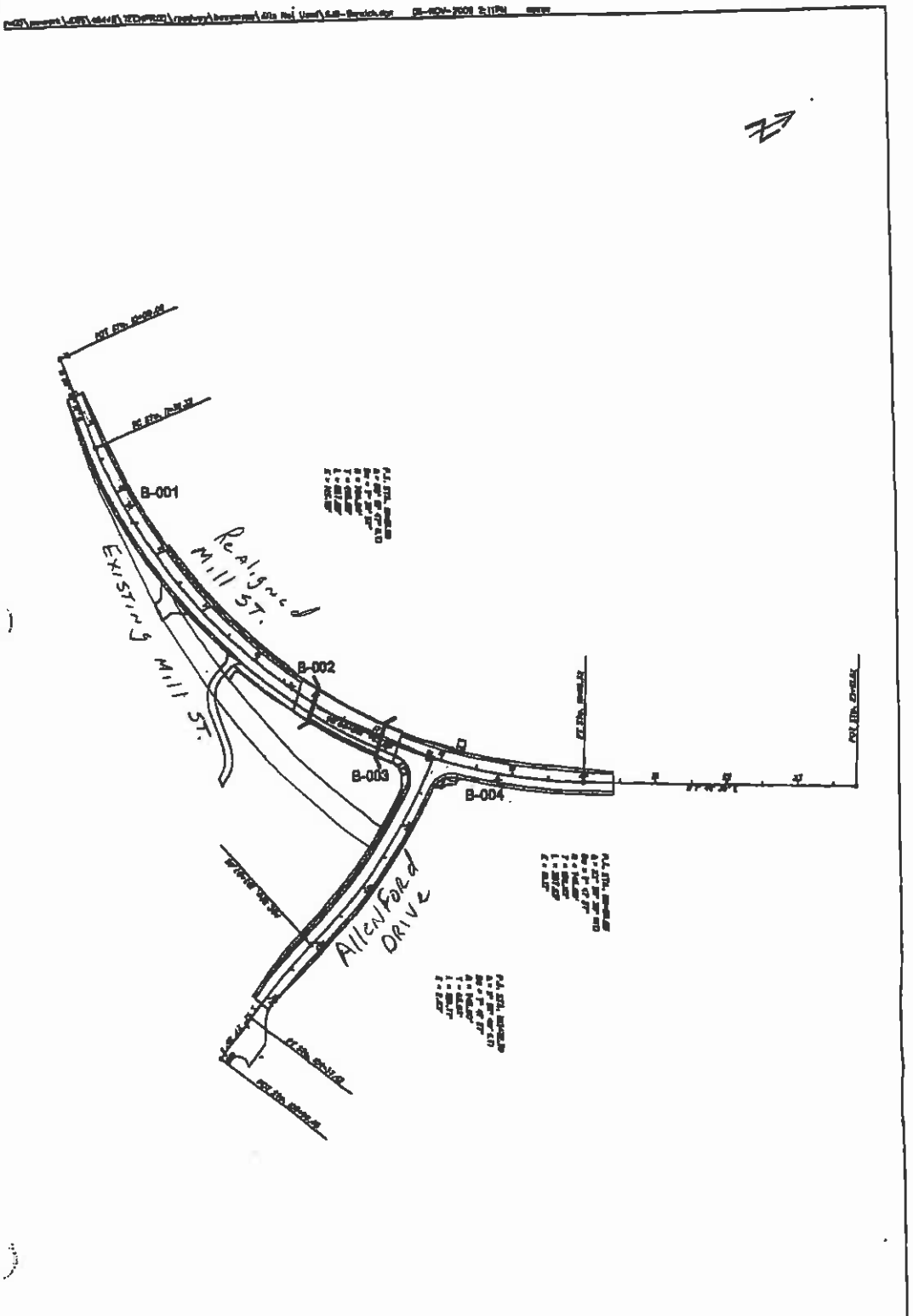
Acknowledgements.
Similarities in language and procedure to ODOT Proposal Note 109 are deliberate. An attempt is being made to model the ODOT's Dispute Resolution and Administrative Claim Process. This attempt is being made to standardize and create a uniform practice across the industry.

APPENDIX

H

Soil Borings

- For Reference Only
- Soil Borings Performed for The Mill Street Bridge Project



Mill Street Bridge Replacement	Boring Location Map (Provided by HNTB)	

PRIME ENGINEERING & ARCHITECTURE INC.

TEST BORING NO.: B-004

STA. & OFFSET: 18+92.01, 6.5' Rt.

NORTH: 403878.8 EAST: 2278942.2 ELEVATION: 1004.17

CLIENT: HNTB Ohio, Inc. STRUCTURE TYPE: Roadway

PROJECT: Mill Street Bridge Replacement PID No.: 82417 PROJECT No.: G09027G

LOCATION: Canton Twp., Stark County, Ohio DATE STARTED: 9/10/09 DATE COMPLETED: 9/10/09

SAMPLER DIAM: 2.0" TYPE: SS HAMMER WT.: 140lb FALL: 30"

CASING DIAM: 3.25" TYPE: HSA ENERGY RATIO: 82.1 CALIB. DATE: 8/29/08

SEALING INFOR: Auger Cuttings SAMPLING FIRM/LOGGER: PE&A/SS

DRILLING INFORMATION:
Earthbound Drilling using an ATV-Mounted CME 45C Drill Rig. CME Automatic Hammer

GROUNDWATER INFORMATION:
No groundwater was encountered during or upon completion of drilling operations,

ELEV (ft.)	DEPTH (ft.)	Soil/Rock Symbol	MATERIAL DESCRIPTION	SAMPLE NUMBER	SAMPLE DEPTH	BLOWS/6 INCHES N60-VALUE/(BLOWS/FT)	REC%/(RQD%)	PENETROMETER (tons/ft²)	MOISTURE CONTENT (%)	LIQUID LIMIT LL	PLASTIC LIMIT PL	PLASTICITY INDEX PI	AGGREGATE (%)	COARSE AND FINE SAND (%)	SILT AND CLAY COMBINED(%) OR SILT(%)/CLAY(%)	CLASSIFICATION SYMBOL
			ASPHALT PAVEMENT (7.0" THICK)													
1003.6	0.8		MEDIUM DENSE, DARK BROWN COARSE AND FINE SAND, LITTLE CLAY, TRACE GRAVEL, DAMP (ROADBASE)	SS-1A	1.0	26	83	–	9	–	–		–	–		VISUAL
1002.8	1.4		VERY STIFF, BROWN SANDY SILT, LITTLE CLAY, LITTLE ROCK FRAGMENTS, DAMP, FILL	SS-1B	1.4	12 11		3.0	12	26	18	10	19	29	52	A-4a
1001.7	2.5		MEDIUM DENSE, BROWN ROCK FRAGMENTS WITH SAND AND SILT, MOIST	SS-2	2.5	15 2 5	55	–	9	–	–		–	–		VISUAL
1000.0	4.2		VERY DENSE, BROWN SANDSTONE FRAGMENTS, WITH SAND AND SILT LAYER MOIST	SS-3	4.0	53 5 25	83	–	9	–	–		–	–		VISUAL
998.7	5.5		MEDIUM DENSE, BROWN ROCK FRAGMENTS WITH SAND AND SILT, MOIST	SS-4	5.5	14 4 4 6	83	–	9	–	–		–	–		VISUAL
997.2	7.0		BOTTOM OF BORING = 7.0 FEET													

NOTES/REMARKS:

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APPENDIX

I

PLA

PROJECT LABOR AGREEMENT

FOR THE

ALLENFORD SANITARY SEWER REHAB, BYPASS VAULTS, GP 1114

ENTERED INTO BY THE

CITY OF CANTON

AND THE

EAST CENTRAL OHIO BUILDING AND CONSTRUCTION TRADES COUNCIL AFL-CIO

AND THE

SIGNATORY LOCAL UNIONS

Effective _____

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ARTICLE I

INTENT AND DURATION

Section 1. Intent And Duration. This Project Labor Agreement (the "Agreement") is entered into between the City of Canton (collectively the "Owner"); the East Central Ohio Building and Construction Trades Council, AFL-CIO ("ECOB & CTC" or "Council"); and the Signatory Unions (the "Unions"), and applies exclusively to the construction work within the scope of this Agreement to be performed at the Allenford Sanitary Sewer Rehab, Bypass Vaults, GP1114 (the "Project"). The purpose of this Agreement is to promote efficiency in the construction of the improvements and/or renovation involving the Project and to provide for the peaceful settlement of any and all labor disputes and grievances without strikes or lockouts, thereby promoting the public interest in assuring the timely and economical completion of the Project. This Agreement shall expire and be of no further force or effect upon the completion of the Project.

Upon execution of this Agreement by all parties, all construction, remodeling and renovation work covered by this Agreement on the Project shall be contracted exclusively to Contractors, of whatever tier, who agree to execute and be bound by the terms of this Agreement. The Unions agree that Contractors may execute the Agreement, or the Letter of Assent attached as Appendix I, for purposes of performing such work. The Owner (or its permitted designee) shall monitor compliance with this Agreement by all contractors and subcontractors. For purposes of the Agreement, the term "Contractor" shall be deemed to include all construction contractors and subcontractors of whatever tier engaged in on-site construction and renovation work on the Project. The Owner, the Unions and all signatory Contractors agree to abide by the terms and conditions contained in this Agreement. This Agreement represents the complete understanding of all parties, and no Contractor is or will be required to sign any other agreement with a signatory union as a condition of performing work coming within the scope of this Agreement. No practice, understanding or agreement between a Contractor and a Union, which conflicts with any provisions in this Agreement, will be binding on any other party unless approved in writing by the Owner.

Section 2. Limitation Of Agreement To Project. The Unions agree that this

Agreement will be made available to, and will fully apply to, any successful bidder for work on the Project, without regard to whether that successful bidder performs work at other sites on either a union or a non-union basis, and without regard to whether employees of such bidder are or are not members of any union. The Unions further agree that this Agreement applies only to this Project. Nothing in this agreement is in intended to, or shall, interfere with, or negate, any existing contractual relationship or collective bargaining agreement between the Union and any contractor or subcontractor that may execute this agreement.

ARTICLE II

PURPOSE

Section 1. Purpose. The parties to this Agreement understand and acknowledge the fact that the timely construction of the Project is critical to the enhancement of the image and economic development of the City of Canton. The parties signatory to this Agreement accordingly pledge their complete good faith and trust to work towards an on-time completion of the Project.

Section 2. Time Is Of The Essence. The parties to this Agreement understand and agree that time is of the essence for this Project. The parties understand and agree that the Owner has a critical need for timely completion of the Project and that timely completion of the Project is therefore vital. The parties understand and agree that timely completion of the Project will require the use of substantial numbers of employees from construction trades and supporting crafts possessing skills and qualifications that are essential to the Project. The Unions pledge that they have members who are competent, skilled, and qualified to perform this required construction work. The parties also understand that on-budget completion for the Project is most critical; it is therefore essential that construction work on the Project be done in an efficient, economical manner with optimum productivity and no delays. In recognition of those special needs of the Project, Unions signatory hereto and their members agree not to initiate, authorize, sanction, participate in or condone, or permit their members to engage in, any strike, sympathy strike, jurisdictional strike, recognitional strike, slowdown, sabotage, work to rule, sickout, sit down, picketing of any type (including informational picketing), handbilling, boycott, interruption of work or any disruptive activity that interferes with

or interrupts in any way work on the Project or other operations of the City of Canton. Contractors agree not to engage in any lockouts.

ARTICLE III

BENEFITS OF THE AGREEMENT

Section 1. Benefits Of The Agreement. This Agreement is intended to foster the achievement of a timely and on-budget completion of the Project by, among other things:

(a) reducing and/or eliminating the tensions and potential disagreements that might otherwise exist between Union and non-union workers on the Project;

(b) avoiding the costly delays of strikes, sympathy strikes, jurisdictional strikes, slowdowns, walkouts, picketing, handbilling and any other disruptions or interference with work, and promoting labor harmony and peace for the duration of the Project;

(c) standardizing terms and conditions of employment for labor working on the Project;

(d) permitting flexibility in work scheduling and shift hours and times;

(e) achieving negotiated adjustments as to work rules and staffing requirements from those which otherwise might obtain;

(f) providing comprehensive and standardized mechanisms for the settlement of work disputes;

(g) ensuring a reliable source of skilled and experienced labor; and

(h) furthering public policy objectives, to the extent lawful, as to improved employment opportunities for minorities, women and the economically disadvantaged in the construction industry. Mindful of the economic condition and unemployment rate in Stark County, the Owner anticipates and expects that all construction workers and employees on this Project will be residents of Stark County. In view of the very technical and specialized work that is inherent in the construction industry, all parties acknowledge that this expectation by the Owner is a goal, not a mandate. To this end, all Contractors working under this Agreement pledge that they will make a good-faith effort to reach this goal expressed by the Owner.

ARTICLE IV

SCOPE OF AGREEMENT

Section 1. The Work. This Agreement is specifically defined and limited to onsite construction and renovation work required to construct the Project.

Section 2. Exclusions From Scope. Work specifically excluded from the scope of this Agreement, even if performed in connection with the Project, includes the following:

(a) Work of non-manual employees, including but not limited to, superintendents, supervisors, staff engineers, inspectors, quality control and quality assurance personnel, timekeepers, mail carriers, clerks, office workers, including messengers, guards, safety personnel, emergency medical and first aid technicians, and other professional, engineering, administrative, supervisory and management employees.

(b) Equipment and machinery owned or controlled and operated by the Owner.

(c) All off-site manufacture, fabrication or handling of materials, equipment or machinery (except at dedicated lay-down or storage areas), and all deliveries of any type to and from the Project site (except on-site pouring of concrete). Provided, however, any off-site prefabrication of any building materials, systems and/or components traditionally performed on site shall be performed by the appropriate craft signatory to this agreement and approved by the Owner.

(d) All employees of the Owner, the Construction Supervisor, design team or any environmental, engineering or other consultant when such employees do not perform labor coming within the scope of this Agreement.

(e) Any work performed on or near or leading to or onto the site of work on the Project and undertaken by state, county, city or other governmental bodies, or their contractors; or by public utilities or their contractors.

(f) Off-site maintenance of leased equipment and on-site supervision of all such maintenance work.

(g) Work by employees of a manufacturer or vendor necessary to maintain

such manufacturer's or vendor's warranty or guarantee, or work performed by supervisors or technicians employed by the manufacturer or vendor to oversee the testing of equipment once installed to insure that the equipment is fully operational.

(h) Laboratory work for specialty testing or inspections not ordinarily done by the signatory local unions.

(i) All work done by employees of any State agency, authority or entity or employees of any municipality or other public employer.

The Unions agree that there shall be no interference with or disruption of work of those contractors, employers, and employees exempted from coverage of this Agreement by subparagraph (a) through (i) above.

Section 3. Contract Award and Consent to Agreement.

(a) The Owner, and/or Contractors, as appropriate, have the absolute right to award contracts or subcontracts on the Project notwithstanding the existence or nonexistence of any agreements between such Contractor and any Union party provided only that such Contractor is willing, ready and able to execute and comply with this Agreement or a Letter of Assent thereto, should such Contractor be awarded work covered by this Agreement.

(b) All subcontractors of a Contractor, of whatever tier, who have been awarded contracts of work covered by this Agreement, on or after the effective date of this Agreement, shall also be required to accept and to be bound by the terms and conditions of this Agreement, and shall evidence their acceptance by the execution of this Agreement or a Letter of Assent thereto, prior to the commencement of work. A copy of this Agreement or Letter of Assent executed by each Contractor shall be immediately provided to the Union .

Section 4. Stand-Alone Agreement. This Agreement is a stand-alone Agreement. While this Agreement expressly does not incorporate any local area collective bargaining agreements, such local area collective bargaining agreements may be referenced for the limited purposes as hereinafter set forth in this Agreement. However, to the extent, if any, that any provisions of this Agreement conflict with any

provision of a local area collective bargaining agreement, the provisions of this Agreement shall control, except for all work performed under the NTL Articles of Agreement, the National Stack/Chimney Agreement, the National Cooling Tower Agreement, all instrument calibration work and loop checking performed under the terms of the UA/IBEW Joint National Agreement for Instrument and Control Systems Technicians, and the National Agreement of the International Union of Elevator Constructors, with the exception of Articles VII, VIII and X of this Agreement, which shall apply to such work.

Section 5. Craft Jurisdiction. This Agreement shall recognize the traditional craft jurisdictions of the signatory unions. Any and all jurisdictional disputes shall be settled in accordance with Article VIII below. While this Agreement is a stand-alone Agreement, the Agreement will utilize the local area collective bargaining agreements of signatory locals as a reference to define the signatory local unions' craft jurisdiction.

Section 6. Subcontracting. The Owner agrees that neither it nor any of its contractors or subcontractors will subcontract any work covered by this Agreement to be done on the Project except to a person, firm or corporation who is or agrees to become party to this Agreement. Any contractor or subcontractor working on the Project shall, as a condition to working on the Project, become signatory to and perform all work under the terms of this Agreement. Contractors who are signatory to local collective bargaining agreements shall be bound by the terms of their respective local collective bargaining agreements on subcontracting to the extent such terms are consistent with Article IV, Section 2 of this Agreement. Disputes concerning compliance with such local subcontracting provisions for this Project shall be subject to all of the dispute resolution provisions of this Agreement.

Section 7. Security. All employees covered by this Agreement in the employ of the Contractors shall remain members in the applicable signatory Union during the term of this Agreement, and all workers hereinafter employed by the Contractors shall become members of the applicable signatory Union seven (7) days after the date of their employment and shall remain members of the Union during the term of this Agreement. (This clause shall be applied to the extent permitted by law). A Contractor shall not discharge any employee for non-membership in the Union if: (a) he has reasonable grounds for believing that such membership was not available to the employee on the same terms and conditions generally applicable to other

members, or (b) he has reasonable grounds for believing that membership was denied or terminated for reasons other than the failure of the employee to tender the periodic dues and initiation fee uniformly required as a condition of acquiring or retaining membership.

Section 8. Liability. It is understood that the liability of the Contractor and the liability of the separate Unions under this Agreement shall be several and not joint. The Unions agree that this Agreement does not have the effect of creating any joint employer status between or among the Owner, any Construction Supervisor and/or any Contractor, and neither the Owner nor any Construction Supervisor shall assume any liabilities of the Contractors.

Section 9. Abatement of Agreement. As areas of covered work on the Project are accepted by the Owner, this Agreement shall have no further force or effect on such areas except where the Contractor is directed by the Owner to engage in repairs or punch list modifications.

ARTICLE V

LABOR/MANAGEMENT COOPERATION

JOINT ADMINISTRATIVE COMMITTEE

Section 1. The parties to this Agreement shall establish a Project Joint Administrative Committee ("Committee"). This Committee will be a two-person committee comprised of one member each appointed by the Owner (or its designee) and the Unions, with an alternate appointee Union member available to replace the regular appointee when a problem or grievance concerns the regular appointee's Union. Each member of the Committee shall designate an alternate who shall serve in the absence of the member for any purpose contemplated by this Agreement.

Section 2. The Committee shall meet at least quarterly, or more often if special circumstances warrant, to discuss the administration of the Agreement, the progress of the Project, labor/management problems that may arise, and any other relevant matters. Any need for interpretation which might arise from the application of the terms and conditions of the Agreement shall be referred directly to the Committee for resolution.

ARTICLE VI

UNION RECOGNITION AND EMPLOYMENT

Section 1. Pre-Hire Recognition. Each Contractor and subcontractor recognizes the Unions as the sole and exclusive bargaining representatives of all craft and trade employees within their respective jurisdictions working on the Project under the Agreement.

Section 2. Contractor's Right of Selection. Each Contractor shall have the right to determine the competency of all employees, the number of employees required and shall have the sole responsibility for selecting employees to be laid off. To the extent any training or vendor education is required to fill any position, such training shall be undertaken at no cost or expense to Owner.

Section 3. Union Referral. For local Unions having a job referral system, each Contractor agrees to comply with such system, and the referral system shall be used exclusively by such Contractor, except as modified by this Article. Such job referral system will be operated in a non-discriminatory manner and in full compliance with Federal, state, and local laws and regulations requiring equal employment opportunities and nondiscrimination, and referrals shall not be affected in any way by the rules, regulations, bylaws, constitutional provisions or any other aspects or obligations of union membership, policies or requirements. The Union shall indemnify and hold each Contractor harmless with respect to any claim arising out of how the Union operates and administers its referral system. All hiring procedures, including related practices affecting apprenticeship and training, will be operated so as to facilitate the ability of the contractors to meet any and all equal employment opportunity/affirmative action obligations. The Contractor may reject any referral and request another, different referral; provided, however, the Contractor shall furnish, upon request from the Union, a written explanation for the rejection.

Section 4. Lack of Job Referral System. In the event that a signatory Local Union does not have a job referral system as set forth in Section 3 above, the Contractor shall give the Union a forty-eight (48) hour opportunity to refer applicants. The Contractor shall notify the Union of employees hired from any source other than referral by the Union.

Section 5. Unavailability of Union Referrals. In the event that local Unions are unable to fill any requisitions for qualified employees within forty-eight hours (48) after such request is made by the Contractor (Saturdays, Sundays, and Holidays

excepted), the Contractor may employ applicants from any other available source. The Contractor shall provide the Union with the name, address and telephone number of any applicants hired from other sources and refer the applicant to the Local Union for dispatch to the Project.

Section 6. Union Best Efforts. The Local Unions will exert their utmost efforts to recruit sufficient numbers of skilled craft workers to fulfill the manpower requirements of each Contractor, including calls to local unions in other geographic areas when its referral lists have been exhausted. The parties to this Agreement support the development of increased numbers of skilled construction workers from the residents of the area of the Project. Toward that end, the Unions agree to encourage the referral and utilization, to the extent permitted by law and the hiring hall procedures, of qualified residents as journeymen, apprentices and trainees on the Project.

ARTICLE VII

GRIEVANCE ARBITRATION PROCEDURE

Section 1. This Agreement is intended to provide close cooperation between management and labor. Each of the Unions will assign a representative to this Project for the purpose of completing the construction of the Project economically, efficiently, continuously, and without interruptions, delays, or work stoppages.

Section 2. The Contractors, Unions, and the employees, collectively and individually, realize the importance to all parties to maintain continuous and uninterrupted performance of the work of the Project, and agree to resolve disputes in accordance with the grievance-arbitration provisions set forth in this Article.

Section 3. Any question or dispute arising out of and during the term of this Agreement (other than trade jurisdictional disputes) shall be considered a grievance and subject to resolution under the following procedures:

> **Step 1.** (a) When any employee subject to the provisions of this Agreement feels he or she is aggrieved by a violation of this Agreement, he or she, through his or her Local Union business representative or job steward, shall, within five (5) working days after the occurrence of the violation, give notice to the work-site representative of the involved

Contractor stating the provision(s) alleged to have been violated. The business representative of the local union or the job steward and the work-site representative of the involved Contractor shall meet and endeavor to adjust the matter within three (3) working days after timely notice has been given. The representative of the Contractor shall keep the meeting minutes and shall respond to the Union representative in writing at the conclusion of the meeting but not later than twenty-four (24) hours thereafter. If they fail to resolve the matter within the prescribed period, the Local Union may, within forty-eight (48) hours thereafter, pursue Step 2 of the Grievance Procedure, provided the grievance is reduced to writing, setting forth the relevant information concerning the alleged grievance, including a short description hereof, the date on which the grievance occurred, and the provisions of the Agreement alleged to have been violated.

(a) Should a Local Union(s) or any Contractor have a dispute with the other party and if, after conferring, a settlement is not reached within three (3) working days, the dispute may be reduced to writing and proceed to Step 2 in the same manner as outlined herein for the adjustment of an employee complaint.

Step 2. The International Union Representative and the involved Contractor shall meet within seven (7) working days of the referral of a dispute to this second step to arrive at a satisfactory settlement thereof. Meeting minutes shall be kept by the Contractor. If the parties fail to reach an agreement, the dispute may be appealed by the Union, in writing, in accordance with the provisions of Step 3.

Step 3. (a) If the grievance has been submitted but not adjusted under Step 2, either party may request in writing, within seven (7) calendar days thereafter, that the grievance

be submitted to an Arbitrator mutually agreed upon by them. The Contractor and the involved Union shall attempt mutually to select an arbitrator, but if they are unable to do so, they shall request the Federal Mediation and Conciliation Services (FMCS) to provide them with a list of arbitrators from which the Arbitrator shall be selected. The rules of FMCS shall govern the conduct of the arbitration hearing. The decision of the Arbitrator shall be final and binding on all parties. The fee and expenses of such Arbitration shall be borne equally be the Contractor and the involved Local Union(s).

Section 4. Failure of the grieving party to adhere to the time limits established herein shall render the grievance null and void. Failure of the Contractor to adhere to the time limits established herein shall result in the grievance being sustained. The time limits established herein may be extended only by written consent of the parties involved at the particular step where the extension is agreed upon. The Arbitrator shall have the authority to make decisions only on issues presented to him or her, and he or she shall not have authority to change, amend, add to or detract from any of the provisions of this Agreement.

Section 5. The Owner shall be notified of all .actions at Steps 2 and 3 and shall, upon request, be permitted to participate in all proceedings at these steps.

ARTICLE VIII

JURISDICTIONAL DISPUTES

Section 1. The assignment of work will be the responsibility of the Contractor performing the work involved and such work assignments will be in accordance with decisions issued under the Plan for the Settlement of Jurisdictional Disputes in the Construction Industry (the "Plan"), or any successor Plan, adopted by the National Building and Construction Trades Department.

Section 2. All jurisdictional disputes on this Project, between or among Building and Construction Trades Unions and Contractors, parties to this Agreement, shall be settled and adjusted according to the present Plan established by the Building and Construction Trades Department or any other plan or method of procedure that may be

adopted in the future by the Building and Construction Trades Department. Decisions rendered shall be final, binding and conclusive on the Contractors and Unions parties to this Agreement.

Section 3. All jurisdictional disputes shall be resolved without the occurrence of any strike, work stoppage, or slow-down of any nature, and the Contractor's assignment shall be adhered to until the dispute is resolved. Individuals violating this section shall be subject to immediate discharge.

Section 4. Each Contractor will conduct a pre-job conference with the appropriate Council prior to commencing work. The Owner will be advised in advance of all such conferences and may participate if they wish.

ARTICLE IX

MANAGEMENT'S RIGHTS

Section 1. Exclusive Owner - Workforce. Except as otherwise provided in this Agreement, the Owner (or its designee) and the Contractors retain the authority for the management of their operations and workforces.

Section 2. Materials, Design, Machinery, Equipment. There shall be no limitation or restriction by a signatory Union upon a Contractor's choice of materials or design, nor, regardless of source or location, upon the full use and utilization of equipment, machinery packaging, pre-cast, pre-fabricated, pre-finish, or pre-assembled materials, tools or other labor saving devices. The on-site installation or application of all items shall be performed by the craft having jurisdiction of such work; provided, however, that the installation of specialty items may be performed by employees employed under this Agreement who may be directed by other personnel in a supervisory role, in circumstances requiring special knowledge of the particular items.

Section 3. New Technology, Equipment. The use of new technology, equipment, machinery, tools and/or labor saving devices and methods of performing work may be initiated by any Contractor from time to time during the Project. The Union agrees that it will not in any way restrict the implementation of such new devices or work methods.

Section 4. Disputes. If there is any disagreement between any Contractor and the Union concerning the manner or implementation of such device or method of

work, the implementation shall proceed as directed by the Contractor, and the Union shall have the right to grieve and/or arbitrate the dispute as set forth in Article VII of this Agreement.

ARTICLE X

WORK STOPPAGES

Section 1. No Strikes or Work Disruptions. There shall be no strike, sympathy strike, jurisdictional strike, recognitional strike, slowdown, sabotage, work to rule, sickout, sit down, picketing of any type (including informational picketing), handbilling, boycott, interruption of work or any disruptive activity that interferes with or interrupts in any way work on the Project. The Unions signatory hereto, and each of their members, agree not to initiate, authorize, sanction, participate in, condone, or permit their members to engage in any such activity. Failure of any Union or employee covered by this Agreement to cross any picket line established by any Union, signatory or non-signatory to the Agreement, or by any other organization or individual at or in proximity to the Project construction site, is a violation of this Article. The signatory Union shall be responsible for any action of its members which violates this section, and its members shall be subject to discipline up to and including discharge for violation of the provisions of this Article.

Section 2. Union Responsibilities. The Union shall not sanction, aid or abet, encourage or condone any conduct or activity in violation of this Article, and shall undertake all means to prevent or to terminate any such conduct immediately.

ARTICLE XI

WAGES AND BENEFITS

Section 1. Wages. All employees covered by this Agreement shall be classified in accordance with work performed and paid 100% of the wages and 100% of the benefits as established in the respective Craft's Collective Bargaining Agreement and any subsequent modifications thereto. The Contractor, upon request, shall provide the Unions and Owner with substantiation that wages and benefits are being paid on the Project. The Unions shall provide the Owner, and any Contractor or subcontractor that is party to this Agreement, with wage, fringe benefit and dues reporting forms.

Section 2. Payment of Benefits/Contributions. Each Contractor will also

pay all required contributions in the amounts required by Section 1 of this Article to the established employee benefit funds that accrue to the direct benefit of the employees (such as pension and annuity, health and welfare, vacation, apprenticeship, training funds). With respect to contributions required in this Section to Employer-Union jointly trusteed funds, the Contractor adopts and agrees to be bound by the written terms of the legally established trust agreements specifying the detailed basis on which payments are to be made into, and benefits paid out of, such Trust Funds. The Contractor authorizes the parties to such Trust Funds to appoint Trustees and successor Trustees to administer the Trust Funds and hereby ratifies and accepts the Trustees so appointed as if made by Contractor.

Section 3. Non-Affiliated Labor Organizations. The Contractor shall deduct from each employee's wages all uniform dues and working assessments set forth in the Employee's Local Collective Bargaining Agreement. If a labor organization is not affiliated with the Council, and supplies its members or referrals for work on the Project, such labor organization shall pay to the Council the dues and assessments it would owe the Council if affiliated, for all periods during which the labor organization has members or referrals working on the Project. Any disputes under this paragraph shall be resolved exclusively between the labor organization and the Council by using the grievance procedure appearing in Article VII, as provided herein. All grievances shall be reduced to writing within thirty (30) days of the date on which the aggrieved party discovered the dispute. The grievance shall be initiated at Article VII, Section 3, Step 3.

ARTICLE XII
LOCAL UNION NEGOTIATIONS DURING
THE PENDENCY OF THE AGREEMENT

Section 1. All parties to this Agreement understand and acknowledge that some crafts who will be working on the Project are covered by local collective bargaining agreements that will expire prior to the projected completion of the Project. All parties understand and agree that, irrespective of whether such local collective bargaining agreement negotiations are successful or unsuccessful, there shall be no strike, sympathy strike, jurisdictional strike, recognitional strike, slowdown, sabotage, work to rule, sickout, sit down, picketing of any type (including informational picketing),

handbilling, boycott, interruption of work or any disruptive activity that interferes with or interrupts in any way work on the Project by any Union involved in such local negotiations, or by any of its members; nor shall there be any lockout by a Contractor on the Project affecting such union or its members during the course of such negotiations. Irrespective of the status of any such local collective bargaining negotiations, the affected Union and all of its members will observe and fully comply with the provisions of this Agreement. Should any Local Union fail or refuse to provide and/or refer qualified employees for work on the Project during an economic strike, any affected Contractor shall be permitted to utilize the procedures appearing in Article VI, Section 5 of this Agreement.

Section 2. Wage/Benefit Increases. Should a craft covered by this Agreement negotiate an increase in wages or an increase in benefits with any Contractor that will become effective during the term of the Project, those wage and/or benefit increases shall be paid by the affected Contractor, as of the effective date of those increases, to those employees in that craft performing work covered by this Agreement.

ARTICLE XIII

HOURS OF WORK, OVERTIME, SHIFTS AND HOLIDAY

Section 1. Work Day and Work Week. Except as provided in Section 4, the first shift shall consist of eight (8) or ten (10) hours per day between the hours of 6:00 a.m. and 5:30 p.m., plus one-half (1/2) hour unpaid for lunch, approximately mid-way through the shift. Forty (40) hours per week shall constitute a regular week's work, whether consisting of five (5) eight (8) eight hours days, or four (4) ten (10) hour days. The work week will start on Monday and conclude on Sunday. A uniform starting time will be established for all crafts on each project or segment of the work. Nothing herein shall be construed as guaranteeing any employee eight (8) or ten (10) hours per day or forty (40) hours per week. The Union(s) shall be informed of the work starting time set by the contractor at the pre job conference which may be changed thereafter upon three (3) days' notice to the Union(s) and the employees. A second shift, if used, shall consist of eight hours between 3:00 p.m. and 1:00 a.m.; a third shift, if used, shall begin between 10:00 p.m. and 1:00 a.m. For purposes of Section 3, the third shift shall be considered as part of the prior day's work.

Section 2. Starting Times. Employees shall be at their place of work at the starting time and shall remain at their place of work (as designated by the Contractor) performing their assigned functions until quitting time, which is defined as the scheduled end of the shift. The parties reaffirm their policy of a fair day's work for a fair day's wage. There shall be no pay for time not worked unless the employee is otherwise engaged at the direction of the Contractor.

Section 3. Overtime. Overtime shall be defined as all hours worked in excess of forty (40) hours in a work week or, for 8 hour shifts, in excess of eight (8) hours per day; or for 10 (ten) hour shifts for work in excess of 10 hours per day. Such work and work performed on Saturdays shall be paid at one and one-half times the straight time rate of pay. However, in scheduled four (4) day/ten hour shift work weeks, Friday may be scheduled as a "makeup" day at straight time to make up for a day lost (Monday through Thursday) due to inclement weather. In addition, if a "make-up" day is scheduled, all employees directed to work on such day will be guaranteed a minimum of four (4) hours work or pay. In any week in which employees on the Project are scheduled on four/ten hour shifts, an employee whose first day of work on the Project begins on Wednesday or a later day of the schedule shall be paid, during the first week of his employment only, time-and-one-half for all hours worked in excess of eight in a day for each day he works during that week. Work on Sundays and holidays shall be at double time. There shall be no restriction on any contractor's scheduling of overtime or the non-discriminatory designation of employees who will work. The contractor shall have the right to schedule work so as to minimize overtime. There shall be no pyramiding of overtime pay under any circumstances.

Section 4. Shifts.

(a) Shift work may be performed at the option of the Contractor(s) upon three (3) days' prior notice to the Union and shall continue for a period of not less than five (5) working days. Saturdays and Sundays, if worked, may be used for establishing the five (5) day minimum work shift. If two shifts are worked, each shall consist of eight (8) hours of continuous work exclusive of a one-half (½) hour non-paid lunch period. Any third shift shall consist of seven (7) hours of continuous work exclusive of one-half (½) hour non-paid

lunch period for eight (8) hours pay. A premium of $.25 per hour shall be paid for work on the second shift and $.50 per hour for work on the third shift.

(b) The Contractor may establish a work week of four (4) consecutive ten (10) hour work days (exclusive of one-half (½) hour unpaid lunch, approximately midway through the shift) between Monday through Thursday.

Section 5. Minimum Pay. An employee who reports for work at the regular starting time and for whom no work is provided shall receive pay equivalent to two (2) hours at the applicable hourly rate, provided the employee at the employer's discretion remains available for work. Any employee who reports for work and for whom work is provided shall be paid for actual time worked but not less than two (2) hours. It will not be a violation of this agreement when the employer considers it necessary to shut down to avoid the possible loss of human life, because of an emergency situation that could endanger the life and safety of an employee. In such cases, employees will be compensated only for the actual time worked. In the case of a situation described above where the employer requests employees to remain available for work, the employees will be compensation for such time. If a project is shut down because of weather, employees, who report for work, shall be paid actual time worked but not less than two (2) hours. Procedures for prior notification of work cancellation shall be determined at the pre-job conference. The provisions of this section are not applicable where the employee voluntarily quits or lays off.

Section 6. Holidays. Holidays shall be New Year's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, the Day after Thanksgiving Day, and Christmas Day. A holiday falling on Saturday shall be observed on the preceding Friday. A holiday falling on Sunday shall be observed on the following Monday.

Section 7. Meal Period. The Contractor will schedule a meal period of not more than one-half hour duration at the work location at approximately the mid-point of the scheduled work shift (4 hours in a five day work week, 5 hours in a four-day work week), consistent with Section 1; provided, however, that the Contractor may, for efficiency of the operation, establish a schedule which coordinates the meal

periods of two or more crafts. If an employee is required to work through his meal period, he shall be compensated for the time worked at the applicable overtime rate and the employee shall, when work permits, eat his lunch "on the fly".

Section 8. No Organized Work Breaks. There will be one (1) break during the first four (4) hours of a shift which shall be taken at the employee's work station. Individual nonalcoholic beverage containers will be permitted at the employee's work station.

Section 9. Helmets to Hardhats.

(a) The Employers and the Unions recognize a desire to facilitate the entry into the building and construction trades of veterans who are interested in careers in*the building and construction industry. The Employers and Unions agree to utilize the services of the Center for Military Recruitment, Assessment and Veterans Employment (hereinafter "Center") and the Center's "Helmets to Hardhats" program to serve as a resource for preliminary orientation, assessment of construction aptitude, referral to apprenticeship programs or hiring halls, counseling and mentoring, support network, employment opportunities and other needs as identified by the parties.

(b) The Unions and Employers agree to coordinate with the Center to create and maintain an integrated database of veterans interested in working on this Project and of apprenticeship and employment opportunities for this Project. To the extent permitted by law, the Unions will give credit to such veterans for bona fide, provable past experience.

ARTICLE XIV
APPRENTICES

Section 1. Need For. The parties recognize the need to maintain continuing support of programs designed to develop adequate numbers of competent workers in the construction industry. The Contractor(s) will accordingly employ apprentices in their respective crafts to perform work on the Project within the apprentice's capabilities.

Section 2. Ratios. The Union agrees to cooperate with the Contractor in

furnishing qualified apprentices as requested and if available. Apprentices shall perform the work of their craft in accordance with the ratios and terms in their local collective bargaining agreements. To the extent requested by Owner, the Contractor(s) may use the maximum number of apprentices permitted by local collective bargaining agreements.

ARTICLE XV

DRUG AND ALCOHOL POLICY – CRIMINAL BACKGROUND CHECKS

Section 1. Drug and Alcohol Policy. All parties understand and agree that a drug and alcohol policy, approved by the Council, will be in force for all work performed under the Agreement. The drug and alcohol policy will prohibit the use, sale, transfer, purchase and/or possession of a controlled substance, alcohol and/or firearms while on the Project's premises and will require testing of employees. The drug and alcohol policy, attached hereto as Appendix 2, is incorporated into and made part of this Agreement and is implemented for all Contractors and employees working on the Project.

ARTICLE XVI

NON-DISCRIMINATION

Section 1. Policy. It is the continuing policy of the Owner, the Contractors and the Unions that the provisions of this Agreement shall be applied without discrimination because of age, race, gender, color, religion, creed, national origin, sexual orientation, disability or any other basis prohibited by applicable law.

ARTICLE XVII

SOLE AND COMPLETE AGREEMENT

Section 1. The parties agree that this Agreement constitutes the sole and complete agreement between them governing the rates of pay and working conditions for the construction employees working on the Project. This Agreement settles all demands and issues on the matters subject to collective bargaining and shall not be modified or supplemented in any way except by written agreement executed by the Owner and all parties.

ARTICLE XVIII

SEPARABILITY AND SAVINGS CLAUSE

Section 1. Intent of Parties. If any article or section of this Agreement shall

be held invalid by law or by a tribunal of competent jurisdiction, or if compliance with or enforcement of any article should be restrained pending a final determination as to its validity, the remainder of this Agreement shall not be affected and shall remain in full force and effect. In the event that any article or section is held invalid, the Owner shall, upon the request of the Unions, enter into collective bargaining negotiations for the purpose of arriving at a mutually satisfactory replacement for such article during the period of invalidity or restraint. If the Owner and the Council cannot agree on a mutually satisfactory replacement, either party shall be permitted to submit its demand to formal interest arbitration.

Section 2. Force of Agreement. The parties recognize the right of the Owner to withdraw, at its absolute discretion, the utilization of this Agreement as part of any bid specification should a court of competent jurisdiction issue any order which could result, temporarily or permanently, in delay of the bidding, awarding, and/or construction work on the Project. Notwithstanding such an action by the Owner, or such court order, the parties agree that the Agreement shall remain in full force and effect on the Project, to the maximum extent legally possible. It is hereby agreed that this Agreement covers all of the signatory local unions listed below.

Section 3. Delegation. The Owner, in its sole and absolute discretion has the right to delegate its duties hereunder to a representative and/or designee who may be either an employee of Owner or a third party with whom Owner has contracted for contractor services.

OWNER

Service Director
Canton

EAST CENTRAL OHIO BUILDING & CONSTRUCTION TRADES COUNCIL, AFL-CIO

BRICKLAYERS LOCAL 6

By:

Name: Brett J. Tressel

Title: Field Rep

Date: 2-6-13

ELECTRICIANS LOCAL NO. 540

By:

Name: Philip D. Williams

Title: Bus Mngr/Finan-Secy

Date: 2-6-13

GENERAL TRUCK DRIVERS & HELPERS UNION LOCAL NO. 92

By:

Name: Doyle B Baird

Title: President

Date: 2-6-13

Allenford Sanitary Sewer Rehab, Bypass Vavits, G.P. 1114 Pwn

~~MILL ST. SANITARY SEWER REPLACEMENT, GP 1188~~

PROJECT LABOR AGREEMENT

INDIANA/KENTUCKY/OHIO
REGIONAL COUNCIL OF
CARPENTERS, LOCAL NO. 285

By: Charles J Rohr

Name: Charles J Rohr

Title: Senior Representative

Date: 2/8/13

GLAZIERS LOCAL NO. 1162

By:_____

Name:_____

Title:_____

Date: _____

HEAT & FROST INSULATORS AND ASBESTOS WORKERS LOCAL NO. 84

By:_____

Name:_____

Title:_____

Date: _____

IRONWORKERS LOCAL NO. 550

By: [signature]

Name: William U Scherer Jr

Title: Business Manager

Date: 2-6-13

LABORERS LOCAL NO. 1015

By: Robert C Mage

Name: Robert C Mage

Title: Business Manager

Date: 2-6-13

OPERATIVE PLASTERERS' AND CEMENT MASONS LOCAL NO. 109

By: _____

Name: _____

Title: _____

Date: _____

PAINTERS LOCAL NO. 603

By: _____

Name: _____

Title: _____

Date: _____

PLUMBERS, PIPEFITTERS AND REFRIGERATION LOCAL NO. 94

By: _____

Name: _____

Title: _____

Date: _____

ROOFERS, LOCAL UNION NO. 88

By:_____

Name:_____

Title:_____

Date: _____

SHEET METAL WORKERS LOCAL NO. 33

By:_____

Name:_____

Title:_____

Date: _____

SPRINKLER FITTERS LOCAL NO. 669

By:_____

Name:_____

Title:_____

Date: _____

APPENDIX 1

LETTER OF ASSENT TO THE PROJECT LABOR AGREEMENT

FOR THE ALLENFORD SANITARY SEWER REHAB, BYPASS VAULTS, GP1114

Pursuant to Article I, Section 1 of the Project Labor Agreement (the "Agreement") for the Allenford Sanitary Sewer Rehab, Bypass Vaults, GP1114 (Project), the undersigned party hereby agrees that it will comply with and be bound by all of the terms and conditions of the Agreement and agrees to all approved amendments or revisions thereto.

This Letter of Assent shall ONLY apply to the Project and shall remain in effect for the duration of the Project, after which this understanding will automatically terminate without further notice.

For the Contractor (or Subcontractor of whatever tier):

Name of Contractor/Subcontractor: _____

Name and Signature of Authorized Person:

(Print Name) _____

(Title) _____

(Signature) _____

(Phone #) _____

(Date) _____

APPENDIX 2

EMPLOYEE DRUG AND ALCOHOL TESTING POLICY

SPECIFICATIONS

The Owner is committed to providing a safe workplace for the workers assigned the Project, promoting high standards of employment health, and fostering productivity that satisfies its quality expectations. Consistent with the intent and spirit of this commitment, the Owner and ECOB & CTC have established a substance abuse testing specification for the Project with the goal of maintaining a work environment that is free from the effects of the use of illegal drugs and alcohol. The Owner will implement the terms of this policy on the Project.

This specification is not intended as a substitute for the Contractors' complete written substance abuse policy. Normally, such policies include other important features, including, but not limited to, an employee education and awareness Program, a supervisor training program and an employee assistance program.

The policy for this Project requires that any construction employee entering the project site will comply with the substance abuse testing requirements as outlined in this section. The Owner reserves the right to amend this specification upon written notice to the Contractor and the Unions on the Project. The parties to this agreement shall recognize the Drug Free Work Site Program as implemented through participating Unions and/or Contractors as administered by the contractor, or for contractors who are not signatory to agreements with signatory unions belonging to ECOB & CTC, and their core employees, an equivalent program that meets the specifications, contractual requirements, and testing requirements as set forth in this Appendix 2.

CONTRACTUAL REQUIREMENTS

All Contractors must have and enforce a written Substance Abuse Program incorporating the testing requirements, term, and conditions set forth in this specification. This specification is applicable to all employees, current and prospective, in order to be eligible to perform work at the Project. The Contractors must comply with the specification. Suppliers, vendors, and visitors are subject to confirmation of their abstinence from the possession or use of substances indicated in this specification. A copy of each contractor's substance abuse program must be

submitted to the Owner for approval prior to commencement of any work on the Project site.

The substance abuse program must apply to all employees working on the Project and subcontractors' of any of tier working on the Project site. This includes workers, new hires, replacement workers, and supervisory personnel. No employee or prospective employee of a Contractor shall be permitted to work on the Project site unless such employee has submitted to testing by this specification and unless the results of such testing are negative as hereinafter defined. The Contractor must provide the Owner with a Monthly Summary Report of the Substance Abuse Program compliance.

All Contractors must train their respective employees in methods that will allow them to recognize substance abusers. Supervisory Employees of the Owner or its subcontractor shall be trained to take action, and to confront a substance abuser in a manner consistent with generally accepted safety-training procedures.

The cost of implementing the Substance Abuse program shall be borne by each respective Contractor affected by this specification.

Suppliers, vendors, and visitors must become signatory to the terms of this specification and their abstinence from substance abuse, and their continued avoidance of violations of the specification at the project site. Furthermore, in the event of an incident and/or accident occurrences involving suppliers, vendors, and/or visitors, the same agrees to submit to the substance abuse testing when requested. Refusal to comply would be grounds to have the supplier, vendor, or visitor permanently barred from the Project site by regulators.

TESTING REQUIREMENTS

The Project requires:

- Post-offer/Pre-engagement drug and alcohol testing.
- Testing for reasonable suspicion of illegal drug use or alcohol use.
- Post accident and post incident drug and alcohol testing upon reasonable suspicion.
- Drug testing following discovery of illegal or unauthorized drugs or paraphernalia as creating reasonable suspicion.

All Prime Contractors must perform post-offer/pre-engagement, and post

accident/incident testing upon reasonable suspicion, as follows:

a. All drug testing must be conducted by a National Institute of Drug Abuse (NIDA) certified laboratory with test results interpreted by a licensed medical review officer (MRO).
b. The initial screen tests for alcohol shall be performed by using either a saliva test or breathalyzer test comparable to the type used by state or local law enforcement officials. Furthermore, alcohol confirmatory tests shall be performed by using either blood alcohol test or a Breathalyzer test comparable to the type used by state or local law enforcement officials.
c. Evidence of the negative test results of individual employees required by this specification shall be furnished to the Owner prior to the commencement of work by the individual employee and promptly after performance of any subsequent testing required by this specification. Acceptable negative test result format.
    - A certificate signed by the testing laboratory, setting forth the nature and results of performed; or
    - An identification card signed by the respective Prime Contractor and issued to the individual employee, setting forth as reported on a certificate issued by the testing laboratory. The name of the testing laboratory shall also appear on the identification card; provided the affected employee authorizes the issuance of such identification card.

COMPLIANCE PROCEDURE

The Owner reserves the right to audit any substance abuse program required by this specification to verify compliance results within twenty-four (24) hours of notification of the intent to audit. The Owner shall have free right of access to all relevant records of the Prime Contractor and their subcontractors and supplies for this purpose, provided such record disclosures are within the scope of the States guidelines pertaining to confidentiality of employee records.

The Contractor's pre-engagement employees who receive a positive test result shall immediately leave the Project Site. Transportation of employees receiving the positive test result is the direct responsibility of the employing Prime Contractor, including employees of its subcontractors. Furthermore, pre-engagement

employees receiving a positive test shall not be permitted to return to the Project Site earlier than 90 days from the date of the positive test. At this time the employee may begin the process outlined by this specification again.

DEFINITIONS/ CONFIDENTIALITY/RULES- DISCIPLANARY ACTIONS- GRIEVANCE PROCEDURES

1. DEFINITIONS:

   (a) Company Premises - the term "Company Premises" as used in this policy includes all property, facilities, land, building, structures, automobiles, trucks and other vehicles owned, leased or used by the Contractor on the Project. Construction job sites for which the Contractor has responsibility are included.

   (b) Prohibited Items & Substances - Prohibited substances include illegal drugs (including controlled substances, look alike drugs and designer drugs, alcoholic beverages, and drug paraphernalia in the possession of or being used by an employee on the job.

   (c) Employee - Individuals, who perform work for the Contractor, including, but not limited to management, supervision, engineering, craft workers and clerical personnel.

   (d) Accident - Any event resulting in injury to a person or property to which an employee, or contractor/contractor's employee, contributed as a direct or indirect cause.

   (e) Incident - An event which has all the attributes of an accident, except that no harm was caused to person or property.

   (f) Reasonable Cause - Reasonable cause shall be defined as tardiness, excessive absenteeism, and erratic behavior such as noticeable imbalance, incoherence, and disorientation.

2. CONFIDENTIALITY

   (a) All parties to this policy and program have only the interests of employees in mind; therefore, encourage any employee with a substance abuse problem to come forward and voluntarily accept our assistance in dealing with the illness. An employee assistance program will provide guidance and direction for you during your recovery period. If you volunteer for help, the

Contractor will make every reasonable effort to return you to work upon your recovery. The Contractor will also take action to assure that your illness is handled in a confidential manner.

(b) All actions taken under this policy and program will be confidential and disclosed only to those with a "need to know."

(c) When a test is required, the specimen will be identified with a code number, not by name, to insure confidentiality of the donor. Each specimen container will be properly label and made tamper proof. The donor must witness this procedure.

(d) Unless an initial positive result is confirmed as positive, it shall be deemed negative and reported by the laboratory as such.

(e) The handling and transportation of each specimen will be properly documented through the strict chain of custody procedures.

3. RULES - all employees must report to work in a physical condition that will enable them to perform their jobs in a safe and efficient manner. Employees shall not:

(a) Use, possess, dispense or receive prohibited substances on or at the Project job site; or

(b) Report to work at or on the Project with any measurable amount of prohibited substances in their system.

4. DISCIPLINE - When the Contractor has reasonable cause to believe an employee is under the influence of a prohibited substance, for reasons of safety, the employee may be suspended until test results are available. If no test results are received after three (3) working days, the employee, if available, shall return to work with back pay. If the test results prove negative, the employee shall be reinstated with back pay. In all other cases:

(a) Applicants testing positive for drug use will not be hired.

(b) Employees who have not voluntarily come forward, and who test positive for a drug use, will be terminated.

(c) Employees who refuse to cooperate with testing procedures will be terminated.

(d) Employees found in possession of drugs or drug paraphernalia will be terminated.

(e) Employees found under the influence of alcohol while on duty, or while operating a company vehicle, will be subject to termination.

5. PRESCRIPTION DRUGS - Employees using a prescribed medication which, in their physician's opinion, may impair the performance of their duties, either mental or motor functions, must immediately inform the supervisor of such prescription drug use if instructed by their physician to do so. For the safety of all employees, the Contractor will consult with you and your physician to determine if a reassignment of duties is necessary. The Contractor will attempt to accommodate your needs by making an appropriate reassignment. However, if a reassignment is not possible, you will be placed on temporary medical leave until released as fit for duty by the prescribing physician.

APPENDIX

J

Cost Proposal

ITEM. NO. 1
TEMPORARY PUMPING, AS PER PLAN

MEASUREMENT: Temporary Pumping, As Per Plan included for lump sum payment will be the type and size shown on the contract drawings. The Generator and Transfer Switch, Complete, As Per Plan shall be completely installed in accordance with the contract drawings.

PAYMENT: The lump sum price for Temporary Pumping, As Per Plan stipulated in the proposal shall include the furnishing all materials, labor, tools, equipment and transportation necessary to bypass sewage around any section of pipe that is to be removed and replaced and any section of pipe to be tested and inspected. The work may include, but not limited to the following: the installation, operation and removal of the temporary bypass pumping system in accordance with the technical specifications and contract drawings.

ITEM. NO. 2
SITE WORK, AS PER PLAN

MEASUREMENT: Site Work, As Per Plan included for lump sum payment will be the type and size shown on the contract drawings. Site Work, As Per Plan shall be completed in accordance with the technical specification and contract drawings.

PAYMENT: The lump sum price for Site Work , As Per Plan stipulated in the proposal shall include the furnishing all materials, labor, tools, equipment and transportation necessary for the construction of Item No. 2. The work may include, but not limited to the following: traffic control, clearing and grubbing, dust control, grading, filling and disposal of earth materials, pipe bedding and backfill, clay dams, existing pavement removal, pavement replacement, removal and replacement of curbs and drive aprons, existing pavement markings removal, pavement markings installation, excavation, excavation support systems, regrading of existing ditches and/or swales, removal of existing structures, removal and relocation of existing utilities, connections or alterations to existing or new facilities, temporary sediment and erosion control, connections to existing facilities, dewatering, guard post removal and replacement, support of existing utilities and all other work necessary for the construction of the underground facilities.

ITEM. NO. 3
24" PVC SDR 26 SANITARY SEWER, AS PER PLAN

MEASUREMENT: The length for 24" PVC SDR 26 Sanitary Sewer, As Per Plan to be paid shall be the horizontal length furnished and laid in accordance with the contract drawings. It shall be measured along the longitudinal axis of the pipe after the pipe and any pipe specials have been installed to the inside wall of any manhole or structure.

PAYMENT: The unit price per lineal foot for 24" PVC SDR 26 Sanitary Sewer, As Per Plan shall be irrespective of depth, class and size of pipe and shall include the furnishing and laying of the pipe, specials, bends and fittings, jointing material, plugs, bulkheads, cleaning, CCTV inspection and recording, line acceptance testing and any other appurtenant work necessary to complete the work as specified or as shown.

ITEM. NO. 4 and 5
ESI/WSI INTERCONNECTION VAULTS, AS PER PLAN

MEASUREMENT: ESI/WSI Interconnection Vaults, As Per Plan included for lump sum payment will be the type and size shown on the contract drawings. ESI/WSI Interconnection Vaults, As Per Plan shall be completed in accordance with the technical specification and contract drawings.

PAYMENT: The lump sum price for ESI/WSI Interconnection Vaults, As Per Plan stipulated in the proposal shall include the furnishing all materials, labor, tools, equipment and transportation necessary for the construction of Item No. 4 and 5. The work may include, but not limited to the following: providing concrete consisting of portland cement, fine and coarse aggregates, water, and approved admixtures; combined, mixed, transported, placed, finished and cured; fabricating and placing reinforcement, including ties and supports, building into concrete and sleeves, frames, anchorages devices, inserts and other items to be embedded in concrete; providing openings in concrete as required; furnish and install grout; providing openings in and attachments to floor access hatch covers as shown on the plans and providing for floor access hatch cover items such as anchorage devices, and all items necessary to install floor access hatch covers; painting surfaces as specified in the technical specifications; furnish and install stainless steel slide gates and appurtenances complete and operational; and any other appurtenant work necessary to complete the work as specified or as shown.

PROPOSAL

Canton, Ohio, _____ 20 ___

To the Service Director of the City of Canton:

The undersigned, having carefully examined the site of the proposed work, the plans, profiles and standard drawings and specifications therefore, herewith propose to furnish all the labor and materials required for WSI-ESI Interconnection Vaults, G.P. 1114 including any and all work and materials that may be necessary to connect the work to be done with the adjoining work, in a proper and workmanlike manner, and in accordance with drawings on file in the office of the City Civil Engineer, and upon the terms and conditions of the within specifications and under the direction of and to the satisfaction of the City Engineer and the Service Director of said City.

The bidder herein agrees that the Service Director has the right to reject any or all bids and that the bidder shall not dispute the correctness of the quantities used in computing the lowest and best bid.

The bidder hereby certifies that the undersigned _____ the only person interested in the bid and the bidder herewith certifies that no officer or employee of the City of Canton is in any manner interested therein. The bidder agrees that should all or either of said bids be accepted, to enter into the prescribed contract within ten (10) days from and after the date of service of notice of such acceptance, for the faithful performance of the labor and furnishing of the materials in such bid or bids so accepted, and to fully complete the said work within 30 days from Notice to Proceed.

The bidder herewith encloses a bond or certified check _____ in the sum of _____ dollars made payable to the Service Director of the City of Canton as guaranty that if awarded the contract for the work included in this proposal, _____ will enter into contract therefor, with sureties satisfactory to the Service Director, within the prescribed time of ten (10) days from the date of service of notice of award, otherwise such bond or check shall become the property of said City, as liquidated damages of the failure on the Bidder's part to so contract within specified time.

ADDRESS	RESPECTFULLY SUBMITTED
_____	_____
_____	_____
_____	_____
_____	_____
	Bidder

For information only.
Bidders must purchase bid documents from the City Engineering Department in order to submit a bid on this project.

WSI - ESI Interconnection Vaults G.P. # 1114						
	SPEC No.	DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE	TOTAL PRICE
1	01-51-41	TEMORARY PUMPING, AS PER PLAN	LUMP	1		
2	01-57-05, 01-73-24, 01-73-29, 31-23-16.13	SITE WORK, AS PER PLAN	LUMP	1		
3	33-05-05, 40-05-31	24" PVC SDR 26 SANITARY SEWER, AS PER PLAN	L.F.	92		
4	03-00-05, 03-60-00, 05-54-63, 09-91-00, 43-26-23	ESI INTERCONNECTION VAULT, AS PER PLAN	LUMP	1		
5	03-00-05, 03-60-00, 05-54-63, 09-91-00, 43-26-23	WSI INTERCONNECTION VAULT, AS PER PLAN	LUMP	1		
6						
7						
8						

TOTAL BID $ _____

For informational purposes only, total unit prices will govern.