

**CATTARAUGUS COUNTY
SHERIFF'S DEPARTMENT CALL CENTER
FIRE PROTECTION IMPROVEMENTS
303 COURT STREET
LITTLE VALLEY, NY 14755**

BID NO. 57

Prepared by:
**Cattaraugus County
Department of Public Works**

8810 Route 242
Little Valley, NY 14755



General Provisions and Bid Proposal Booklet

SEPTEMBER 2018

CATTARAUGUS COUNTY DEPARTMENT OF PUBLIC WORKS

Instructions to Bidders,
Specifications and Related Documents

For

**CATTARAUGUS COUNTY
SHERIFF'S DEPARTMENT CALL CENTER
FIRE PROTECTION IMPROVEMENTS
303 COURT STREET
LITTLE VALLEY, NY 14755**

Cattaraugus County Department of Public Works

8810 Route 242

Little Valley, New York 14755

Tel. (716) 938-9121

Fax (716) 938-2754



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* To be completed by All Bidders and returned with bid.

** To be completed by the Apparent Low Bidder.

CATTARAUGUS COUNTY

DEPARTMENT OF PUBLIC WORKS

Development – Progress – Workmanship

*Kathleen M. Ellis
Commissioner*

*Vacant
Deputy Commissioner*

*Mark C. Burr, P.E.
Director of Engineering*



*Jack Ellis Drive
8810 Route 242
Little Valley, New York 14755
Phone (716) 938-9121
FAX (716) 938-2753*

ADVERTISEMENT FOR BIDS

Sealed bids for the **Sheriff's Department Call Center Fire Protection Improvements, 303 Court Street, Little Valley, New York**, according to specifications, will be received by the undersigned, at the **Department of Public Works Facility, 8810 Route 242, Little Valley, New York**, until **Friday, September 28, 2018 at 1:45 P.M.** after which they will be publicly opened at **2:00 P.M. (at the same location)**, by the undersigned, under the direction of the Public Works Committee of the Cattaraugus County Legislature. Each bid, at the time it is received, will be stamped showing date and time of receipt. All bids must be sealed and clearly marked as follows: (Any bid not clearly marked will not be considered.)

DPW BID #57 – Sheriff's Department Call Center Fire Protection Improvements, 303 Court Street, Little Valley, New York

Contractors are encouraged to visit the site before **September 19, 2018**. Please coordinate by contacting Brian Binger at 716-938-2202 or bdbingerman@cattco.org to schedule a site meeting.

Final Request for Information shall be 4:00 P.M. **Friday, September 21, 2018**. Final addendum shall be issued, **Monday, September 24, 2018** at 2:00 P.M. if needed.

Copies of the proposed Contract Documents, Plans, Specifications and Instructions to Bidders will be available **Wednesday, August 29, 2018**, and may be secured online at www.cattco.org/bid-request or at **Cattaraugus County Department of Public Works, 8810 Route 242, Little Valley, New York 14755**. Phone Dawn Smith at 938-9121, ext. 2465. There will be a **\$50.00** charge for each set of specifications, plus **\$8.00** postage if mailed. Checks are to be made payable to the **Cattaraugus County Treasurer**. All questions and RFI's to be directed to Wendel; 375 Essay Road, Williamsville, NY 14221 @ 716-688-0766 Attn: Chris Colvin, ccolvin@wendelcompanies.com. The specifications for this project will be available for examination at the office of **Southern Tier Builders Association, 65 West Main St., Falconer, NY 14733**, & on their web site, (STBA website at: www.stba.com) Login Page: <http://login.onlineplanservice.com/SP/code.aspx> Password: **NYBX18-03495-571**

Cattaraugus County Local Law 12-2012 as amended by Local Law 5-2015 requires that the County provide a copy of the Cattaraugus County Vendor Responsibility Form to the low bidder. The low bidder will have 5 business days to return the completed form unless the form was mailed by the county to the vendor, in which case they will have 10 business days from the date of the mailing to return the form. Failure by the low bidder to submit the form within the above time frame will lead to the automatic rejection of their bid. The contractor

must also ensure that all subcontractors to be used on the project complete this form and submit it to the County for approval within 5 days of the preconstruction meeting. Failure to do so may lead to the rejection of the subcontractor at the County's discretion.

Currently the Commissioner of Public Works has approved the CCA-2 (New York State Vendor Responsibility Questionnaire For-Profit Construction) with attachments A, B, and C to serve as the Cattaraugus County Vendor Responsibility Form.

The full deposit, according to General Municipal Law, Less any postage costs, will be refunded for complete sets with no missing pages, returned in good condition (NOT MARKED IN OR WRITTEN IN) within 30 days of the award of contract. No refunds will be made for sets returned later than 30 days of the award of contract.

All bids must be sent or delivered to Cattaraugus County Department of Public Works, 8810 Route 242, Little Valley, NY 14755. Attention: Dawn Smith.

All bids must be accompanied by a NON-COLLUSIVE BIDDING CERTIFICATE and Bid Bond in the amount of 5% of bid total. All substitutions are to be submitted at time of bid as per the contract documents. No substitutions will be considered after the bid date. Any bid submitted without such certification and bid bond will not be accepted. Any bid not meeting ALL specifications will not be considered. Cattaraugus County reserves the right to reject any or all bids, to waive any informalities, and to accept the lowest responsible bid.

John Searles
County Administrator
County Center - 303 Court Street
Little Valley, New York 14755

SECTION A

LUMP SUM PRICE BID SCHEDULE

The Contractor shall furnish all materials, equipment, tools and labor of every kind required to complete the Sheriff's Department Call Center– Fire Protection Improvements and perform all other work and incidental work in the most substantial and workmanlike manner, and do everything required by the Contract Documents as defined herein.

The total bid price shall be the sum of all materials, installation and labor costs as defined herein. Lump sum bid price shall be entered both in words and numerically in the spaces provided. In the event of a discrepancy the words will be used for tabulation purposes.

**BID FORMS OMITTED FROM
SPECIFICATION BOOKS**

TO OBTAIN BID FORMS PLEASE CONTACT

DAWN SMITH AT 716-938-9121 EXT. 2465

OR SEND EMAIL REQUEST TO:

dasmith@cattco.org

BID BOND

Sec. 38 – Highway law

KNOW ALL MEN BY THESE PRESENTS, That

.....
(Name of Contractor)

.....
(Address)

(hereinafter called the "Principal") and the
a corporation created and existing under the laws of the State of, having its principal
office in the City of (hereinafter called the "Surety"), are held and firmly bound unto
Cattaraugus County (hereinafter called the "County") in the full just sum of Five Percent (5%) of Attached Bid,
good and lawful money of the United States of America, for the payment of which said sum of money, well and
truly to be made and done, the said Principal binds themselves (himself/herself, itself), their (his/hers, its) heirs,
executors and administrators, successors and assigns, and the said Surety binds itself, its successors and assigns
jointly and severally, firmly by these presents:

Signed, sealed and dated this

20..... A.D.

WHEREAS, the said Principal has submitted to the Cattaraugus County Commissioner of Public Works, a
bid for

.....
(Description of Project)

.....
AND

WHEREAS, under the terms of the Laws of the State of New York as above indicated, the said Principal has
filed or intends to file this bond to guarantee that the Principal will execute all required contract proposal documents
and furnish such faithful performance or other bonds as may be required by law in accordance with the terms of the
Principal's said proposal.

NOW, THEREFORE, the condition of the foregoing obligation is such, that if the said Principal shall promptly
execute and submit, and the Commissioner of Public Works shall accept, all required contract proposal documents
including such faithful performance bond or other bonds as may be required by law in accordance with the terms of
the Principal's said proposal, then this obligation shall be null and void, otherwise to remain in full force and virtue.

IN TESTIMONY WHEREOF, the said Principal has hereunto set his/her (their, its) hand and seal and the said Surety
has caused this instrument to be signed by its.....President and its
.....Secretary, and its corporate seal to be hereunto affixed, the day and year first above
written.

Signed, sealed and delivered in the presence of:

(Corporate seal of
Principal if a
corporation)

..... (L.S.)

..... (L.S.)

..... (L.S.)

Principal

(Corporate seal of
Surety Co.)

..... Company

of

By

(Title of Officer)

Attest.....

(Title of Officer)

(Acknowledgment by principal, unless it is a corporation)

STATE OF NEW YORK

SS:

COUNTY OF

On this day of 20....., before me personally came
....., to me known and known to me to be the person described in and who executed the
foregoing instrument, and acknowledged that he/she executed the same.

.....
Notary Public County

(Acknowledgment by principal, if a corporation)

STATE OF NEW YORK

SS:

COUNTY OF

On this Day of 20....., before me personally came
....., to me known who being by me duly sworn, did depose and say that he/she
resides in; that he/she is the of the
.....; the corporation described in and which executed the foregoing instrument; that
he/she knew the seal of said corporation; that the seal affixed to said instrument was such corporate seal; that
it was so affixed by order of the Board of Directors of said corporation, and that he/she signed his/her name
thereto by like order.

.....
Notary Public County

(Acknowledgment by Surety Company)

STATE OF NEW YORK

SS:

COUNTY OF

On this day of 20....., before me personally came
....., to me known, who being by me duly sworn, did depose and say that he/she resides
in; that he/she is the of the; the
corporation described in and which executed the within instrument; that he/she knows the seal of said
corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by the order
of the Board of Directors of said corporation, and that he/she signed his/her name there to by like order.

.....
Notary Public County

BIDDER INFORMATION SHEET

NAME OF BIDDER: * _____

ADDRESS: _____

PHONE NUMBER: _____

TYPE OF ENTITY: CORPORATION _____ PARTNERSHIP _____ INDIVIDUAL _____

IF A NON-PUBLICLY OWNED CORPORATION:

NAME OF CORPORATION: _____

LIST OF PRINCIPAL STOCKHOLDERS (HOLDING OVER 5% OF OUTSTANDING
SHARES):

LIST OF OFFICERS: _____

LIST OF DIRECTORS: _____

DATE OF ORGANIZATION: _____

IF A PARTNERSHIP:

PARTNERS: _____

NAME OF PARTNERSHIP: _____

DATE OF ORGANIZATION: _____

- IF THE BUSINESS IS CONDUCTED UNDER AN ASSUMED NAME, A COPY OF THE CERTIFICATE REQUIRED TO BE FILED UNDER THE NEW YORK GENERAL BUSINESS LAW MUST BE ATTACHED.

NON-COLLUSIVE BIDDING CERTIFICATION

REQUIRED BY SECTION 103-D OF GEN. MUNICIPAL LAW

Section 103-d, GML, "Statement of non-collusion in bids and proposals to political subdivision of the state."

Every bid or proposal hereafter made to a political subdivision of the state or any public department, agency or official thereof where competitive bidding is required by statute, rule, regulation or local law, for work or services performed or to be performed or goods sold or to be sold, shall contain the following statement subscribed by the bidder and affirmed by such bidder as true under the penalties of perjury: Non-collusive bidding certification.

"(a) By submission of this bid, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that to the best of knowledge and belief:

- (1) The prices in this bid have been arrived at independently without collusion, consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor;
 - (2) Unless otherwise required by law, the prices which have been quoted in this bid have not been knowingly disclosed by the bidder and will not knowingly be disclosed by the bidder prior to opening, directly or indirectly to any other bidder or to any competitor; and
 - (3) No attempt has been made or will be made by the bidder to induce any other person, partnership or corporation to submit or not to submit a bid for the purpose of restricting competition."
- (b) A bid shall not be considered for award nor shall any award be made where (a)(1)(2) and (3) above have not been complied with; provided however, that if in any case the bidder cannot make the foregoing certification, the bidder shall so state and shall furnish with the bid a signed statement which sets forth in detail the reasons therefore. Where (a)(1)(2) and (3) above have not been complied with, the bid shall not be considered for award nor shall any award be made unless the head of the purchasing unit of the political subdivision, public department, agency or official thereof to which the bid is made, or his/her designee, determines that such disclosure was not made for the purpose of restricting competition.

The fact that a bidder (a) has published price lists, rates, or tariffs covering items being procured, (b) has informed prospective customers of proposed or pending publication of new or revised price lists for such items, or (c) has sold the same items to other customers at the same prices being bid, does not constitute, without more, a disclosure within the meaning of subparagraph one (a).

2.* Any bid hereafter made to any political subdivision of the state or any public department, agency or official thereof by a corporate bidder for work or services performed or to be performed or goods sold or to be sold, where competitive bidding is required by statute, rule, regulation, or local law, and where such bid contains the certification referred to in subdivision one of this section, shall be deemed to have been authorized by the board of directors of the bidder, and such authorization shall be deemed to include the signing and submission of the bid and the inclusion therein of the certificate as to non-collusion as the act and deed of the corporation.

* So in original, No subd. 1 has been designated.

NON-COLLUSIVE BIDDING CERTIFICATION

BY EXECUTING THIS DOCUMENT, THE CONTRACTOR AGREES TO:

1. Perform all work listed in accordance with the Contract Documents at the lump sum price.
2. All the terms and conditions of the non-collusive bidding certifications required by Section 103-d of the General Municipal Law;
3. Certification of Specialty Items category selected, if contained in this proposal;
4. Certification of any other clauses required by this proposal and contained herein.

(Legal Name of Person, Corporation, or Firm Which
is Submitting Bid or Proposal)

Date: _____

BY: _____
(Signature of Person Representing Above)

AS: _____
(Official Title of Signator in Above Firm)

(Acknowledgment by Individual Contractor, If a Corporation)

STATE OF NEW YORK)
) SS:
COUNTY OF)

On this _____ day of _____, 20____, before me personally came _____, to me known and known to me to be the person who executed the above instrument, who being duly sworn by me, did depose and say that he/she resides at _____, and that he/she is the _____ of the corporation described in and which executed the above instrument, and that he/she signed his/her name thereto on behalf of said Corporation by order of the Board of Directors of said Corporation.

Notary Public

(Acknowledgment by Co-Partnership Contractor)

STATE OF NEW YORK)

COUNTY OF) SS:
)

On this _____ day of _____, 20____, before me personally came _____, to me known and known to me to be the person described in and who executed the above instrument, who, being duly sworn by me, did for himself/herself depose and say that he/she is a member of the firm of _____, consisting of himself/herself and _____, and that he/she executed the foregoing instrument in the firm name of _____ and that he/she had authority to sign same, and did duly acknowledge to me that he/she executed same as the act and deed of said firm of _____ for the uses and purposes mentioned herein.

Notary Public

(Acknowledgment by Individual Contractor)

STATE OF NEW YORK)

COUNTY OF) SS:
)

On this _____ day of _____, 20____, before me personally came _____, to me known and known to me to be described in and who executed the foregoing instrument, and that he/she acknowledged that he/she executed the same.

Notary Public

NON-COLLUSIVE BIDDING CERTIFICATION BIDDER INFORMATION

Bidder to provide information listed below:

Bidder Address:

Street or P.O. Box No.

City

State

Zip

Federal Identification No.:

Name of Contact Person:

Phone # of Contact Person:

If Bidder is a Corporation:

President's Name & Address:

Secretary's Name & Address:

Treasurer's Name & Address:

If Bidder is a Partnership:

Partner's Name & Address:

Partner's Name & Address:

If Bidder is a Sole Proprietorship:

Owner's Name & Address:

**REPORTING VIOLATIONS OF NON-COLLUSIVE BIDDING PROCEDURES, MISCONDUCT, OR
OTHER PROHIBITED CONTRACT ACTIVITIES**

NEW YORK STATE INSPECTOR GENERAL HOTLINE. Reports of New York State Governmental Misconduct may be made in strict confidence to the New York State Inspector General on the Toll Free Statewide HOTLINE or by writing to the Office of the Inspector General. The Toll Free Statewide HOTLINE telephone number is 1-800-367-4448 and calls will be answered between 9:00 A.M. and 5:00 P.M., Monday thru Friday. The address of the Office of the State Inspector General is the State Capitol, Executive Chamber, Albany, New York 12224.

REFERENCE SHEET

All bidders are required to complete this form providing three references of past performance. References should involve projects and/or service situations of similar size, scope, and character of work to this Bid. References must have had dealings with the Bidder within the last thirty-six (36) months. The County reserves the right to contact any or all of the references supplied for an evaluation of past performance in order to establish the responsibility of the Bidder before the actual award of the Bid and/or Contract. Completion of the Reference Form is required.

BIDDER'S NAME: _____

DATE FILED: _____

REFERENCE'S NAME: _____

ADDRESS: _____

TELEPHONE: _____ CONTACT PERSON: _____

REFERENCE'S NAME: _____

ADDRESS: _____

TELEPHONE: _____ CONTACT PERSON: _____

REFERENCE'S NAME: _____

ADDRESS: _____

TELEPHONE: _____ CONTACT PERSON: _____

LOCAL LAW NUMBER 12- 2012 AMENDED BY LOCAL LAW NUMBER 5- 2015
COUNTY OF CATTARAUGUS, NEW YORK

Pursuant to Section 10 of the Municipal Home Rule Law and Section 103
of the General Municipal Law.

A LOCAL LAW ESTABLISHING UNIFORM GUIDELINES FOR
DETERMINING THE RESPONSIBILITY OF BIDDERS

BE IT ENACTED by the Legislature of the County of Cattaraugus ("the County"), as follows:

Section 1. Legislative Intent. It is the intent of this Local Law to enhance the County's ability to identify the lowest "responsible bidder" on public works construction projects by instituting more comprehensive submission requirements and an evaluation system which is in compliance with New York State General Municipal Law. The County, based upon its experience, has determined that quality workmanship, efficient operation, safety, and timely completion of projects are not necessarily assured by awarding a public works contract solely on the basis of the low price. This Local Law establishing uniformity of guidelines for determining the responsibility of apparent low bidders will assure efficient use of taxpayer dollars, will promote public safety, and is in the public interest.

Section 2. Applicability. This Local Law shall apply to construction projects subject to the competitive bidding requirements of General Municipal Law §103 and advertised for bids on or after the effective date.

Section 3. Public Works. For purposes of this Local Law, the term "public works" shall mean the following: any constructing, altering, reconstructing, repairing, rehabilitating, refinishing, refurbishing, remodeling, remediating, renovating, custom fabricating, maintenance, landscaping, improving, moving, wrecking, painting, decorating, demolishing, and adding to or subtracting from any public building, structure, highway, roadway, street, alley, bridge, sewer, drain, ditch, sewage disposal plant, water work, parking facility, railroad, excavation, or other project, development, real property, or improvement, or to any part thereof, whether or not the performance of the work herein described involves the addition to, or fabrication into, any structure, project or development, real property or improvement herein described of any material or article of merchandise, which is paid for out of public funds in an amount exceeding the threshold for bidding established by the General Municipal Law. The term also includes any public works leased by the County under a lease containing an option to purchase exceeding the threshold for bidding public works projects established by the General Municipal Law.

Section 4. Cattaraugus County Vendor Responsibility Form and Procedure.

- A. A questionnaire (which shall be titled the "Cattaraugus County Vendor Responsibility Form"), hereinafter "the Form", shall be prepared and, as he/she may deem appropriate, revised by the Cattaraugus County Commissioner of Public Works ("Commissioner").
- B. The Commissioner shall provide the Form to the apparent low bidder on all County public works projects.
- C. The County shall promptly notify the apparent low bidder of its status as such and provide such entity with a copy of the Form either in electronic or paper format. The most current version of the Form shall also be posted on the Cattaraugus County website.
- D. The apparent low bidder shall file the Form in in the Office of the Commissioner not more than five (5) business days after receiving it or, if the form is mailed to the apparent

- E. Low bidder, within ten (10) business days after the date of mailing.
- F. In the event that the apparent low bidder fails to file the fully completed Form in the Commissioner's Office within the required time, its bid will be rejected and any bid bond submitted may, at the County's sole discretion, be forfeited.
- G. If the apparent low bidder is deemed not responsible, or fails to submit the Form within the required time, then the next lowest bidder will be deemed the apparent low bidder and so on until the lowest bidder is deemed responsible and selected as the lowest responsible bidder.
- H. Not later than five (5) calendar days prior to a final determination that the apparent low bidder is not responsible, the County will notify the bidder of same, in writing, and by certified mail, return receipt, stating the reasons. Except in the case of the rejection of an apparent low bid solely because the vendor failed to timely submit a completed Form, such notice shall set forth a time, date and place for the apparent low bidder to appear and be heard, not less than five (5) business days after such notice is served.
- I. Subcontractors proposed to be used on a project must also complete and submit the Form within five (5) days after the preconstruction meeting before the subcontractor is approved by the County. Failure by a subcontractor to submit the Form or unsatisfactory responses to questions may lead to rejection of the bid of the subcontractor at the County's discretion.
- J. If the bid of the apparent low bidder appears disproportionately low when compared with estimates obtained by or on behalf of the County and/or compared to other bids submitted (10% or greater disparity), the County reserves the right to inquire further of the apparent low bidder to determine whether the bid contains mathematical errors, omissions and/or erroneous assumptions, and whether the apparent low bidder has the capability to perform and complete the contract for the bid amount.
- K. If a bidder is found to have willfully violated New York Labor Law §220 within the previous five (5) years, that bidder shall automatically be deemed "not responsible" and its bid shall be rejected unless the Commissioner, subject to review by the Public Works Committee of the Cattaraugus County Legislature, determines otherwise. In all other cases, based on all of the information collected pursuant to this local law and any other factor deemed relevant, the Commissioner, or other department heads soliciting public works bids, shall determine if the apparent lowest bidder is in fact "responsible."

Section 5. Additional Requirements.

- A. Contractors and all subcontractors shall classify their workers as employees rather than as independent contractors, unless those workers meet the definition of "independent contractor" as defined by the Internal Revenue Service, and shall treat said employees accordingly for purposes of workers' compensation insurance coverage, unemployment insurance, employment taxes, and social security taxes.
- B. The contractors and all subcontractors shall submit certified payrolls to the Commissioner.

Section 6. Procedure. Cattaraugus County will make its own determinations of responsibility for low bidders. A bidder recognized by the state as a responsible vendor must still satisfy the requirements of this local law by submitting the required Cattaraugus County Vendor Responsibility Form within the required time frame.

Section 7. Incomplete Submissions by Bidders and Subcontractors. It is the sole responsibility of the contractor to comply with all submission requirements to the County. The submission requirements also apply to all subcontractors, except that the contractor shall submit all subcontractor questionnaires to the County of Cattaraugus for approval. Failure to submit the Form may lead to the rejection of the bid of the subcontractor at the County's discretion.

Contractor submissions deemed non-responsive will result in automatic rejection of the bid.

Section 8. Materiality. The requirements of this Local Law are a material part of the bid documents and the contract and the successful bidder shall insert this Local Law in all subcontracts.

Section 9. Severability. If any clause, sentence, paragraph, subdivision, section or part of this Local law or the application thereof, to any person, individual, corporation, firm, partnership, entity or circumstance, shall be adjudged by any court of competent jurisdiction to be invalid or unconstitutional such order of Judgment shall not affect, impair, or invalidate the remainder thereof, but shall be confined in its operation to the clause, sentence, paragraph, subdivision, section or part of this Local law or in its application to the person, individual, corporation, firm, partnership, entity, or circumstance directly involved In the controversy in which such judgment or order shall be rendered.

Section 10. Other Local Laws. Any prior Local Law or portion thereof in conflict with this Local Law is hereby repealed.

Section 11. Effective Date. This Local Law shall take effect upon filing in the Office of the Secretary of State, in accordance with Section 27 of the New York State Municipal Home Rule Law.

BID FOR PERFORMANCE OF CONTRACT WITH CATTARAUGUS COUNTY LEGISLATURE
LITTLE VALLEY, NEW YORK

TO: Cattaraugus County Legislature, Little Valley, New York, herein after called the County.

The undersigned, desiring to interpose a bid to provide services for ***Bid 57- Sheriff's Department Call Center – Fire Protection Improvements*** for Cattaraugus County Department of Public Works, does hereby accept all terms, conditions, and agreements contained and set forth in the Notice to Bidders, Instructions to Bidders, Minimum Specifications, Non-Collusive Bidding Certification, Legal Status Information and Bid for Performance of Contract with Cattaraugus County Legislature and does hereby certify, agree and propose as follows:

The undersigned declares that he/she has examined all of the attached documents, and hereby proposes and agrees that, if this bid is accepted, he/she will contract with the County, such contract incorporating the provisions of the documents attached hereto, to furnish all the materials and services and do all the work specified in the attached documents in the manner and time herein specified and according to the requirements as herein set forth, and to take in full payment therefore the bid prices set forth on the preceding specification sheets.

If this proposal is accepted by the County and the undersigned fails to contract as aforesaid, within ten days (not including Sunday) from the date of notice from the County to him/her, then the County may at its option, determine that the bidder has abandoned his/her right to enter into the contract and thereupon the bid and acceptance shall be null and void.

The full name and residences of all persons and parties interested in the foregoing bid as principals are as follows: (Individuals or partnership bids only)

INDIVIDUAL, PARTNERSHIP OR CORPORATE USE

The undersigned certifies, under penalty of perjury, that he/she is fully authorized to sign this bid.

Name and Address of Bidder:

Authorized Signature and Title:

Signature

Title

Date

“Iran Divestment Act of 2012”

“Iranian Energy Sector Divestment”

Pursuant to State Finance Law § 165-a, the Commissioner of General Services is required to develop a list of persons it determines engage in investment activities in Iran, which is defined as provision of goods, services or credit of \$20,000,000 or more, relating to the energy sector.

General Municipal Law § 103-g(4) states as follows:

Every bid or proposal hereafter made to a political subdivision of the state or any public department, agency or official thereof where competitive bidding is required by statute, rule, regulation or local law, for work or service performed or to be performed or good sold or to be sold, shall contain the following statement subscribed by the bidder and affirmed by such bidder as true under penalties of perjury:

The below signed bidder affirms the following as true under penalties of perjury:

- a. “By submission of this bid, the bidder identified herein and each person signing on behalf of the bidder certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and belief that this bidder is not on the list created pursuant to paragraph (b) of subdivision 3 of Section 165-a of the state finance law.”

Corporate or Company Name

By:

Signature

Title

Sworn to before me this

____ Day of _____, 20 ____

Notary Public

This AGREEMENT made as of the ____ day of _____ in the year 20__ by and between the County of Cattaraugus, a municipal corporation hereinafter called the "County" and _____ hereinafter called the "Contractor".

WITNESSETH that the County and Contractor in consideration of the mutual covenants hereinafter set forth, agree as follows:

Article 1. WORK. The Contractor will perform all Work as shown in the Contract Documents for the completion of the Project generally described as Sheriff's Department Call Center – Fire Protection Improvements.

(a) The Contractor shall furnish all of the materials and do all the Work required for the replacement of the structure and all other incidental work detailed in the contract documents.

Article 2. ENGINEER. The Project has been designed by Cattaraugus County. Cattaraugus County will hire an Engineer to represent the County in connection with implementation of the Project and is hereinafter called the ENGINEER. The County and the ENGINEER will provide all on-site observation services, and County observation personnel will also be referred to as the ENGINEER.

Article 3. CONTRACT TIME. Time of beginning, rate of progress and time of completion are essential conditions of the Contract. The Contractor shall commence work within ten (10) days of the effective date of the Contract, unless written consent is given by the County to begin at a later date. All work shall be completed on or before **December 31, 2018 or (90 days from Notice to Proceed), whichever is shorter.**

Article 4. CONTRACT PRICE. The County shall pay the Contractor for the performance of the Work in accordance with the Lump Sum Bid indicated in the bid documents.

Article 5. PAYMENTS. The County shall make payments on the account of the Contract as follows:

- (a) Upon request from the Contractor, the Engineer and the County will review and approve statements prepared by the Contractor for the total quantity of work properly completed by the Contractor as of a specified date noted on the statement. No such statement, however, will be reviewed by the Engineer and County within one month after the start of Work under contract, or at intervals of less than one month. The County will pay the Contractor 95% of the amount of each statement, less prior payments, forty-five (45) days after approval of the statement. Neither statement nor payment shall mean that any Work is accepted. The statements should be based on the percent complete of each subtask noted in the Unit Price schedule.

- (b) The 5% of the value of completed Work withheld from the Contractor will be paid to the Contractor by the County upon: (1) the completion of all Work to the satisfaction of the Engineer and the County; and (2) the Contractor has filed with the County a certification of payment of all labor and materials and certificate of release of liens in connection with this agreement.
- (c) The acceptance by the Contractor of the final payment of amounts withheld from the Engineer's statements shall be and shall operate as a release to the County and the Engineer of all claims and of all liability to the Contractor for all things done or furnished in connection with this Work and for every act and neglect of the County and Engineer and others relating to or arising out of this Work.
- (d) The County reserves the right, at any time, to modify or change the Plans or Specifications as deemed necessary and the Agreement shall not be invalidated thereby however;
- (e) If the Contractor considers that he/she is being required to perform extra work for which no Change Order has been issued, then he/she shall serve Written Notice upon the County prior to such extra work is performed. On failure to serve this Notice, all rights of the Contractor to be paid therefore shall be forfeited.

Article 6. CONTRACT DOCUMENTS. The Contract Documents which comprise the Contract between the Owner and the Contractor are attached hereto and made a part hereof and consist of the following:

- (a) The General Provisions and Proposal Booklet titled ***"Sheriff's Department Call Center – Fire Protection Improvements"***
- (b) Drawings and Plans
- (c) Any Modifications, including Addenda, duly delivered before the execution of this Agreement, and Change Orders incorporated after the Agreement is signed.
- (d) Bonds and Insurance instruments.

Article 7. MISCELLANEOUS.

- (a) Terms used in this Agreement shall have the same meanings which are defined in this bid package.
- (b) The Contractor shall furnish a faithful performance surety bond on a form approved by the County in an amount equal to 100 percent of the Contract Price, and shall have as a surety thereon a surety company or companies authorized to do business in New York State. He/She likewise will furnish a Labor and Material Bond to guarantee the payment of all labor and materials supplied in connection with this Agreement.
- (c) Neither the County nor the Contractor shall, without the prior written consent of the other, assign or sublet in whole or in part his/her interest under any of the Contract Documents and,

- (d) Specifically, the Contractor shall not assign any monies due or to become due without the prior written consent of the County.
- (e) The County and the Contractor each binds himself/herself, his/her partners, successors, assigns and legal representatives to the other party hereto in respect of all covenants, agreements and obligations contained in the Contract Documents.
- (f) The Contract Documents constitute the entire agreement between the County and the Contractor and may only be altered, amended or repealed by a duly executed written instrument.

Article 8. CONTRACTOR REPRESENTATIONS. The Contractor is experienced in the use and interpretation of plans and specifications such as those included in these Contract Documents. He/She has carefully reviewed these and all of the Contract Documents and has found them free of ambiguity and sufficient for bid purposes. He/She has based his/her bid solely on these documents not relying on any explanation or interpretation, oral or written, from any other source.

Article 9. CONTRACT PROVISIONS. The parties to the attached contract, license, lease, amendment or other agreement of any kind (hereinafter, "the contract" or "this contract") agree to be bound by the following clauses which are hereby made a part of the contract (the word "Contractor" herein refers to any party other than the County of Cattaraugus, whether a contractor, licensor, licensee, lessor, lessee or any other party). In the event of a conflict between the terms of the contract (including any and all attachments thereto and amendments thereof) and the terms of this Article, the terms of this Article shall control.

(a) Non-Assignment Clause

In accordance with Section 109 of the General Municipal Law, this contract may not be assigned by the Contractor, or its right, title or interest therein assigned, transferred, conveyed, sublet or otherwise disposed of without the previous consent, in writing, of the County and any attempts to assign the contract without the County's written consent are null and void.

(b) Workers' Compensation Benefits

In accordance with Section 108 of the General Municipal Law, this contract shall be void and of no force and effect unless the Contractor shall provide and maintain coverage during the life of this contract for the benefit of such employees as are required to be covered by the provisions of the Workers' Compensation Law.

(c) Non-Discrimination Requirements

In accordance with Article 15 of the Executive Law (also known as the Human Rights Law) and all other State and Federal statutory and constitutional non-discrimination provisions, the Contractor will not discriminate against any employee or applicant for employment because of race, creed, color, sex, national origin, age, disability or marital status. Furthermore, in accordance with Section 220-e of the Labor Law, if this is a contract for the construction, alteration or repair of any public building or

public work or for the manufacture, sale or distribution of materials, equipment or supplies, and to the extent that this contract shall be performed within the State of New York, Contractor agrees that neither it nor its subcontractors shall, by reason of race, creed, color, disability, sex or national origin: (a) discriminate in hiring against any New York State citizen who is qualified and available to perform the work; or (b) discriminate against or intimidate any employee hired for the performance of work under this contract. If this is a building service contract as defined in Section 230 of the Labor Law, then, in accordance with Section 239 thereof, Contractor agrees that neither it nor its subcontractors shall, by reason of race, creed, color, national origin, age, sex or disability (a) discriminate in hiring against any New York State citizen who is qualified and available to perform the work; or (b) discriminate against or intimidate any employee hired for the performance of work under this contract. Contractor is subject to fines of \$50.00 per person per day for any violation of Section 220-e or Section 239 as well as possible termination of this contract and forfeiture of all monies due hereunder for a second or subsequent violation.

(d) Wage and Hours Provisions

If this is a public work contract covered by Article 8 of the Labor Law or a building service contract covered by Article 9 thereof, neither Contractor's employees nor the employees of its subcontractors may be required or permitted to work more than the number of hours or days stated in said statute, except as otherwise provided in the Labor Law and as set forth in prevailing wage and supplement schedules issued by the State Labor Department. Furthermore, Contractor and its subcontractors must pay at least the prevailing wage rate and pay or provide the prevailing supplements, including the premium rates for overtime pay, as determined by the State Labor Department in accordance with the Labor Law.

(e) Non-Collusive Bidding Requirement

In accordance with Section 103-d of the General Municipal Law, if this contract was awarded based upon the submission of bids, Contractor warrants, under penalty of perjury, that its bid was arrived at independently and without collusion aimed at restricting competition. Contractor further warrants that, at the time Contractor submitted its bid, an authorized and responsible person executed and delivered to the County a non-collusive bidding certification on Contractor's behalf.

(f) Set-Off Rights

The County shall have all of its common law and statutory rights of set-off. These rights shall include, but not be limited to, the County's option to withhold for the purposes of set-off any monies due to the Contractor under this contract up to any amounts due and owing to the County with regard to this contract.

(g) Record-Keeping Requirement

The Contractor shall establish and maintain complete and accurate books, records, documents, accounts and other evidence directly pertinent to performance under this contract for a period of six (6) years following final payment or the termination of this contract, whichever is later, and any extensions thereto. The County Treasurer or County Administrator or any other person or entity authorized to conduct an

examination, as well as the agency or agencies involved in this contract, shall have access to such books, records, documents, accounts and other evidential material during the contract term, extensions thereof and said such (6) year period thereafter for the purposes of inspection, auditing and copying. "Termination of this contract", shall mean the later of completion of the work of the contract or the end date of the term stated in the contract.

(h) Governing Law

This contract shall be governed by the laws of the State of New York except where the Federal supremacy clause requires otherwise.

(i) No Arbitration and Service of Process

Disputes involving this contract, including the breach or alleged breach thereof, may not be submitted to binding arbitration (except where statutorily authorized) but must, instead, be heard in a court of competent jurisdiction of the State of New York. Contractor hereby consents to service of process upon it by registered or certified mail, return receipt requested.

(j) Approval by County Legislature

This contract is subject to, and conditioned upon, approval by the Cattaraugus County Legislature.

(k) Postponement, Suspension, Abandonment or Termination of Contract

The County shall have the right to postpone, suspend, abandon or terminate this contract, and such actions shall in no event be deemed a breach of contract. In the event of any termination, postponement, delay, suspension or abandonment, the Contractor shall deliver to the County all data, reports, plans, or other documentation related to the performance of this contract, including but not limited to guarantees, warranties, as-built plans and shop drawings. In any of these events, the County shall make settlement with the Contractor upon an equitable basis as determined by the County which shall fix the value of the work which was performed by the Contractor prior to the postponement, suspension, abandonment or termination of this contract. This clause shall not apply to this contract if the contract contains other provisions applicable to postponement, suspension or termination of the contract.

(l) Indemnification

The Contractor shall defend, indemnify, and save harmless against Cattaraugus County, its officers, employees, and the Engineer from all suits, actions, or claims of any character brought because of any injuries or damage received or sustained by any person, persons, or property on account of the operations of such Contractor; or on account of or in consequence of any neglect in safeguarding the work; or through use of unacceptable materials in constructing the work; or because of any act of omission, neglect, or misconduct of the Contractor; or because of any claims or amounts recovered from any infringements of patent, trademark, or copyright; or from any claims on amounts arising or recovered under the Workers' Compensation Law, or any other law, ordinance, order, or decree; and so much of the money due the

Contractor under and by virtue of his Contract as shall be considered necessary by the County for such purpose, may be retained for the use of the County; or, in case no money is due, his/her surety may be held until such suit or suits, action or actions, claim or claims for injuries or damages as aforesaid shall have been settled and suitable evidence to that effect furnished to the County; except that money due the Contractor will not be withheld when the Contractor produces satisfactory evidence that he/she is adequately protected by public liability and property damage insurance.

The Contractor agrees to make no claim for damages for delay in the performance of this contract occasioned by any act or omission to act of the County or the Engineer or any of its representatives, and the Contractor agrees that any such claim shall be fully compensated for by an extension of time to complete the performance of work as provided herein. This indemnification shall include all costs and disbursements incurred by the County and the Engineer in defending any suit, including attorney's fees.

(m) Conflict of Interest

- (1) The Contractor warrants that to the best of the Contractor's knowledge and belief, there are no relevant facts or circumstances which could give rise to an organizational conflict of interest, as herein defined, or that the Contractor has disclosed all such relevant information to the County.
- (2) An organizational conflict of interest exists when the nature of the work to be performed under this contract may, without some restriction on future activities, either result in an unfair competitive advantage to the Contractor or impair the Contractor's objectivity in performing the work for the County.
- (3) The Contractor agrees that if an actual or potential organizational conflict of interest is discovered after award, the Contractor will make a full disclosure in writing to the County. This disclosure shall include a description of actions which the Contractor has taken or proposes to take, after consultation with the County, to avoid, mitigate, or minimize the actual or potential conflict.
- (4) The County may terminate this contract in whole or in part, if it deems such termination necessary to avoid an organizational conflict of interest. If the Contractor was aware of a potential organizational conflict of interest prior to award, or discovered an actual or potential conflict after award and did not disclose or misrepresented relevant information to the County, then the County may terminate the contract, or pursue such other remedies as may be permitted by law or this contract. The terms of Clause (k) of this Section or other applicable contract provision regarding termination shall apply to termination by the County pursuant to this clause.
- (5) The Contractor further agrees to insert in any subcontract hereunder, provisions which shall conform to the language of this clause.

(n) Requests for Payment

All requests for payment by the Contractor must be submitted on forms supplied and approved by the County. Each payment request must contain such items of information and supporting documentation as required by the County, and shall be all inclusive for the period of time covered by the payment request.

(o) Performance of Work Required

The Contractor agrees that during the performance of the work required pursuant to this Agreement, the Contractor and all officers, employees, agents or representatives working under the Contractor's direction shall strictly comply with all local, state or federal laws, ordinances, rules or regulations controlling or limiting in any way the performance of the work required by this Agreement. Furthermore, each and every provision of law required to be inserted in this Agreement shall be deemed so inserted, and the Agreement shall be read and enforced as if such provisions were so inserted.

The Contractor further agrees to insert in any subcontract hereunder, provisions which shall conform substantially to the language of this clause, including this paragraph.

(p) Independent Contractor Status

It is understood that the Contractor is an independent Contractor and shall not be considered an agent of the County nor shall any of the Contractor's employees or agents be considered sub-agents for the County. The final contract will be between the County and the Contractor and is not intended and shall not be construed to create the relationship of agent, servant, employee, partnership, joint venture, or association between County and Contractor. The employees and agents of one party are not the employees or agents of the other party for any purpose whatsoever. The Contractor understands and agrees that all persons performing work pursuant to the final contract are for purposes of workers' compensation liability, solely employees of the Contractor and not employees of the County. The Contractor shall be solely liable and responsible for furnishing any and all workers' compensation benefits to any person as a result of any injuries arising from or connected with any work performed by or on behalf of the Contractor hereunder. The employees and agents of each party shall while on the premises of the other party, comply with all rules and regulations of the premises including, but not limited to security requirements. The Contractor agrees to comply with the non discrimination employment policies as required by applicable state and federal laws and regulations regarding employment discrimination. The Contractor assures the County that in accordance with applicable law it does not, and agrees that it will not, discriminate in any manner on the basis of age, color, creed, national origin, race, religious belief, sexual preference, or handicap.

(q) No-Waiver

In the event that the terms and conditions of the Agreement are not strictly enforced by the County, such non-enforcement shall not act as or be deemed to act as a waiver or modification of this Agreement, nor shall such non-enforcement prevent the County from enforcing each and every term of this Agreement thereafter.

(r) Severability

If any provision of this Agreement is held invalid by a court of law, the remainder of this Agreement shall not be affected thereby if such remainder would then continue to conform to the laws of the State of New York.

(s) Liquidated Damages

The contractor shall be assessed a penalty of **\$300 per day** and any additional inspection and engineering costs for work not complete within the specified time frame.

IN WITNESS WHEREOF, the parties hereto have executed this AGREEMENT the day and year first above written.

Attest

By:

County

Attest

By:

Contractor

ACKNOWLEDGMENT OF COUNTY

STATE OF NEW YORK)SS
COUNTY OF CATTARAUGUS)

On this ____ day of _____ 20____, before me, the undersigned, a Notary Public in and for said State, personally appeared _____, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her capacity, and that by his/her signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

Notary Public

ACKNOWLEDGMENT OF CONTRACTOR (OUTSIDE NEW YORK STATE)

STATE OF _____)SS:
COUNTY OF _____)

On this ____ day of _____ 20____, before me, the undersigned, a Notary Public in and for said State, personally appeared _____, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument and that such individual made such appearance before the undersigned in the City/Town of _____ in State of _____.

(SEAL)
Notary Public

ACKNOWLEDGMENT OF CONTRACTOR (WITHIN NEW YORK STATE)

STATE OF NEW YORK)SS:
COUNTY OF _____)

On this ____ day of _____ 20____, before me, the undersigned, a Notary Public in and for said State, personally appeared _____, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

(SEAL)
Notary Public

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PART 1 BIDDING REQUIREMENTS AND CONDITIONS

1.1 NOTICE TO BIDDERS (ADVERTISEMENT)

Sealed bids for the General Construction – Plumbing, Electrical & Fire Protection, Cattaraugus County Jail, 303 Court Street, Little Valley, NY 14755, will be received under the direction of the County Administrator at the Cattaraugus County Department of Public Works Facility, 8810 Route 242, Little Valley, New York until **Friday, September 28, 2018 at 1:45 p.m.**, after which they will be publicly opened at **2:00 p.m.** (at the same location), under the direction of the Public Works Committee of the Cattaraugus County Legislature. Each bid, at the time received, will be stamped by a clock showing date and time of receipt.

Copies of the Contract Plans and Documents may be examined at no expense at the following location:

Cattaraugus County Department of Public Works
8810 Route 242
Little Valley, New York 14755
(716) 938-9121

Copies of the Contract Plans and Documents may be purchased only at the Cattaraugus County Department of Public Works. The purchase price for each set of Contract Plans and Documents is fifty dollars (\$50.00), which is refundable to bidders only. All checks for purchase of Contract Plans and Documents shall be made payable to “County of Cattaraugus”. Full refund for one copy of the plans and specifications will be made to a bidder for this project, if such plans and specifications are returned in good condition within 30 calendar days after the award of the contract or after the rejection of the proposal. The successful bidder is not required to return the copy of the plans and specifications in order to be entitled to such refund. No refund will be made for more than one set of plans and specifications or to persons or firms not submitting a bid.

Questions regarding the contract documents for this project may be directed to Christopher Colvin, PE, Wendel, 375 Essjay Road, Buffalo, New York 14221 at (716) 688-0766 or e-mail at ccolvin@wendelcompanies.com

All bids must be written in ink on the forms provided. The bid must be accompanied by a certified check, cashier's check, or bid bond made payable to "Treasurer, Cattaraugus County", in the amount of 5% of the bid, as a guarantee that if the Contract is awarded to the bidder, he/she will sign the Contract and furnish a satisfactory performance bond. If a bidder should fail to sign the Contract and deliver the performance bond within ten (10) calendar days after he/she has received the Contract, then he/she shall forfeit the proposal guaranty.

In compliance with the provisions of Section 115 (Prevailing Rate of Wage), Public Law 627, the minimum wages paid laborers and mechanics are included in wage schedules that are set out in the bid proposal.

Cattaraugus County Local Law 12-2012 as amended by Local Law 5-2015 requires that the County provide a copy of the Cattaraugus County Vendor Responsibility Form to the low bidder. The low bidder will have 5 business days to return the completed form unless the form was mailed by the county to the vendor, in which case they will have 10 business days from the date of the mailing to return the form. Failure by the low bidder to submit the form within the above time frame will lead to the automatic rejection of their bid. The contractor must also ensure that all subcontractors to be used on the project complete this form and submit it to the County for approval within 5 days of the preconstruction construction meeting. Failure to do so may lead to the rejection of the subcontractor at the County's discretion.

Currently the Commissioner of Public Works has approved the CCA-2 (New York State Vendor Responsibility Questionnaire for-Profit Construction) with attachments A, B and C to serve as the Cattaraugus County Vendor Responsibility Form.

The County of Cattaraugus reserves the right to reject any or all bids, to waive any informality in any bids, and to award the Contract in the County's best interest. The County reserves the right to make the award within forty-five (45) calendar days after the date of the bid opening during which period bids shall not be withdrawn.

1.2 PREQUALIFICATION OF BIDDERS

The County reserves the right to reject any bid if the evidence submitted by, or investigation of, such bidder fails to satisfy the County that such bidder is properly qualified to carry out the obligations of the contract and to complete the work contemplated therein. Conditional bids will not be accepted.

1.3 PROPOSAL GUARANTY

Proposals shall be accompanied by a proposal guaranty in the form of a certified check, cashier's check, or bid bond in the amount of five percent (5%) of the total amount bid. It shall be made payable to "Treasurer, Cattaraugus County".

1.4 DELIVERY OF PROPOSALS

Each proposal must be submitted in a sealed envelope clearly marked to indicate its contents. Sealed proposals must be delivered to the Cattaraugus County Commissioner of Public Works at or before the date, time and location specified herein. No responsibility shall be attached to the Commissioner of Public Works or his representatives for the premature opening of any proposal not properly labeled. Bidders assume all responsibilities and risks associated with mail or courier delivery. When sent by mail, the sealed proposal must be addressed to the County at the address and in care of the official in whose office the bids are to be received. All proposals shall be filed prior to the time and at the place specified in the "Notice to Bidders". Proposals received after the time for opening of bids will be returned to the bidder unopened.

1.5 NOTICE OF SPECIAL CONDITIONS

The contractor's attention is particularly called to those parts of the contract documents and specifications which deal with the following:

- A. Insurance requirements - Item 6.4
- B. Prevailing wage rates required by N.Y.S. Labor Law – Section E

1.6 DISQUALIFICATION OF BIDDERS

Any one or more of the following may be considered as sufficient cause for the disqualification of a bidder and the rejection of his/her proposal.

- (a) More than one proposal for the same work from an individual, firm or corporation under the same or different names.
- (b) Evidence of collusion among bidders. Participants in such collusion will receive no recognition as bidders for any future work with the County until any such participant shall have been reinstated as a qualified bidder.
- (c) Lack of competency and adequate machinery, plant and other equipment, as revealed by the financial statements and experience questionnaire.
- (d) Unsatisfactory performance record as shown by past work for any owner judged from the standpoint of workmanship and progress.
- (e) Uncompleted work which, in the judgment of the County, might hinder or prevent the prompt completion of this work if awarded.
- (f) Failure to pay, or satisfactorily settle, all bills due for labor and materials on former contracts in force at the time of letting.
- (g) Violation of New York Labor Law §220 within the previous five (5) years.
- (h) Failure to comply with any qualification regulations of the County.

PART 2 AWARD AND EXECUTION OF CONTRACT

2.1 CONSIDERATION OF PROPOSALS

In accordance with General Municipal Law, after the proposals are opened and read, they will be compared on the basis the current gross summary in a manner hereafter described for which the work will be performed according to the plans and specifications together with the unit price for each of the separate items as called for. The lowest bid shall be determined by the County on the basis of the gross lump sum for which the entire work will be performed, arrived at by a correct computation of all items specified in the proposal therefore at the unit prices stated in the proposal (if any). If a conflict arises within the bid proposal, then the words will be used for the final tabulation.

The right is reserved to reject any or all proposals, to waive technicalities, to advertise for new proposals, or to proceed to do the work otherwise, if in the judgment of the Commissioner the best interests of the County will be promoted thereby.

2.2 CANCELLATION OF AWARD

The County reserves the right to cancel the award of any Contract at any time before the execution of the Contract by all parties without any liability against the County.

2.3 RETURN OF PROPOSAL GUARANTY

All proposal guaranties, except those of the three lowest bidders, will be returned immediately following the opening and checking of the proposals. That of the successful bidder will be returned after a satisfactory bond has been furnished and the Contract has been executed. The remaining two guaranties will be returned within ten (10) calendar days following the award of the Contract.

2.4 BONDS

The successful bidder shall at the time of the execution of the Contract, furnish a performance bond and a payment bond each in an amount equal to the full amount of the Contract. The purpose of such bonds is to assure the faithful performance of this Contract as well as the payment of all persons performing labor and furnishing materials in connection with this Contract. The form of the bonds and the security shall be acceptable to the County.

Negotiable securities, satisfactory to the County, in an amount equal to that specified for the Contract bond, may be deposited with the County in lieu of such Contract bond and shall be subject to all the conditions of such bond and to such agreements as may be required by the County.

2.5 FAILURE TO EXECUTE CONTRACT

Failure of the Contractor to execute the Agreement and file acceptable performance and payment bonds within ten (10) calendar days from the date of the ***Notice of Award*** (see form on Page D-20) after he/she has received the Contract form shall be just cause for the annulment of the award, and for the forfeiture of the proposal guaranty. The proposal guaranty shall become the property of the County, not as a penalty, but in liquidation of damages sustained. Award may then be made to the next lowest responsible bidder or the work may be re-advertised and constructed under a new Contract or otherwise as the County may decide.

PART 3 SCOPE OF WORK

3.1 RESPONSIBILITY OF THE CONTRACTOR

The Contractor will be held responsible for the execution of a satisfactory and complete piece of work, in accordance with the true intent of the drawings and specifications. He/She shall provide, without extra charge, all incidental items required as a part of his work including layout and survey, even though not particularly specified or indicated. If he/she has good reason for objecting to the use of any material, appliance, or method of construction as shown or specified, then he/she shall report such objections to the Engineer, and if approved by the Engineer, shall obtain proper adjustment before the Contract is made, and then shall proceed with the work with the understanding that a satisfactory job will be required. The Contractor is solely responsible for site safety and adherence to OSHA regulations.

General Scope of Work:

Upgrade existing fire protection system to a double interlock pre-action system and add a dry chemical fire suppression system for the data rooms and integrate the systems.

PART 4 CONTROL OF WORK

4.1 AUTHORITY OF ENGINEER

The Commissioner of Public Works will be represented by the Engineer who will observe the work done under the Contract on a part time basis throughout construction.

The Engineer shall inspect work performed, review materials to be used, and stop and reject work and materials found to be not in accordance with the plans and specifications. His/Her authority shall cover all phases of the work. In the event that questions should arise concerning the interpretation or changes of plans and specifications or to the acceptability of the work, the Contractor shall submit his/her questions, in writing, to the Engineer. These questions shall be forwarded to the Commissioner of Public Works along with the Engineer's recommendations.

The Engineer may place on the job other personnel who shall observe the work as his/her direct representatives. Their authority shall consist of observing the work under the Contract, rejecting any defective material used and temporarily suspending any work improperly performed. They will not have any authority to make changes or alterations in the plans and specifications, nor be permitted to act as foremen for the Contractor.

Any work done or materials used without scheduling suitable observation by the Engineer or his/her authorized representative as noted may be ordered removed and replaced at the Contractor's expense.

4.2 SUBSTANTIAL COMPLETION AND FINAL ACCEPTANCE OF WORK

When in the opinion of the Engineer the Contractor has substantially completed the project or a specified area of a project so that the County can occupy or utilize the project for the use it was intended, the Engineer shall recommend to the Commissioner of Public Works to issue a Certificate of Substantial Completion (See form on page D-22).

When in the opinion of the Engineer the Contractor has fully performed the work under the Contract, the Engineer shall recommend to the Commissioner of Public Works the acceptance of the work so completed. If the Commissioner of Public Works accepts the recommendation of the Engineer, then he/she shall notify the Contractor by letter of such acceptance, and copies of such acceptance shall be sent to other interested parties.

4.3 GENERAL GUARANTY:

Neither the final certificate of payment nor any provision in the contract documents nor partial or entire occupancy of the premises by the County shall constitute acceptance of work not done in accordance with the contract documents or relieve the Contractor of liability in respect to any express warranties or responsibility for faulty materials or workmanship.

The Contractor shall remedy any defects in the work and pay for any damage to other work resulting there from, which shall appear within a period of two (2) years from the date of substantial completion. The County will give notice of observed defects with reasonable promptness.

4.4 CONTRACTOR'S PERSONNEL

The Contractor shall place in charge of the work a competent and reliable English-speaking Superintendent, who shall have the authority to act for the Contractor and who shall be acceptable to the Engineer. This Superintendent must be present at all times during the working day to receive directions and orders given by the Engineer or his/her representatives. All workers must have sufficient skill and experience to properly perform the work assigned to them. Any person employed by the Contractor who the Engineer may deem incompetent or unfit to perform the work shall at once be discharged and shall not again be employed on projects for the County at that specific task.

4.5 COOPERATION WITH UTILITIES

It shall be the Contractor's duty to notify all utility companies or other parties affected within a time frame as not to affect the schedule prior to all necessary adjustment of the public or private utility fixtures and other appurtenances within or adjacent to the limits of construction. The Contractor shall notify the Engineer in writing describing the need for, and extent of, utility adjustments and the anticipated schedule.

It is understood and agreed upon that the Contractor has considered in his/her bid all of the permanent and temporary utility appurtenances in their present or relocated positions as shown on the plans and that no additional compensation will be allowed for any delays, inconveniences, or damage sustained by him due to any interference from the utility appurtenances or the operation of moving them by the utility owners. The Contractor will be responsible for any fees required by the utility owners for temporary locations.

PART 5 CONTROL OF MATERIALS

5.1 CERTIFICATE OF ACCEPTABILITY

All certificates of acceptability of materials required by the specifications shall be supplied by the Contractor at no expense to the County. The Engineer shall have the right to approve of the laboratories or fabricators that will issue the certificates.

The cost of the inspection by the Engineer of any plants not approved by the County shall be borne by the Contractor. This shall include, but not be limited to, plants employed to provide mobile concrete and steel reinforcement.

PART 6 LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC

6.1 SUBCONTRACTORS, MATERIALMEN AND LABORERS

The Contractor shall furnish the Engineer, before final payment is authorized; an affidavit that all labor and material associated with the work in any way is paid for in full. The Contractor shall indemnify and hold the County and the Engineer harmless from any lien or claim which may be made or filed after such payment by any subcontractor, material man or laborer in connection with work performed hereunder.

6.2 RESPONSIBILITY FOR DAMAGE CLAIMS

The Contractor shall indemnify and save harmless Cattaraugus County, its officers, employees and the Engineer, from all suits, actions, or claims of any character brought because of any injuries or damage received or sustained by any person, persons, or property on account of the operations of the Contractor; or on account of or in consequence of any neglect in safeguarding the work; or through use of unacceptable materials in constructing the work; or because of any act or omission, neglect, or misconduct of the Contractor; or because of any claims or amounts recovered from any infringements of patent, trademark, or copyright; or from any claims on amounts arising or recovered under the Workers' Compensation Law, or any other law, ordinance, order, or decree; and so much of the money due the Contractor under and by virtue of his/her Contract as shall be considered necessary by the County for such purpose, may be retained for the use of the County; or, in case no money is due, his/her surety may be held until such suit or suits, action or actions, claim or claims for injuries or damages as aforesaid shall have been settled and suitable evidence to that effect furnished to the County; except that money due the Contractor will not be withheld when the Contractor produces satisfactory evidence that he/she is adequately protected by public liability and property damage insurance.

The Contractor agrees to make no claim for damages for delay in the performance of this contract occasioned by any act or omission to act of the County or the Engineer, or any of its representatives, and the Contractor agrees that any such claim shall be fully compensated for by an extension of time to complete the performance of work as provided herein.

6.3 NO WAIVER OF LEGAL RIGHTS

The County shall not be precluded or stopped by a measurement, estimate or certificate made either before or after the completion and acceptance of the work and payment therefore, from showing the true amount and character of the work performed and materials furnished by the Contractor, nor from showing that any such measurement, from recovering from the Contractor or his/her sureties, or both, such damage as it may sustain by reason of his/her failure to comply with the terms of the Contract. Neither the acceptance by the County, or any representative of the County, nor any extension of time, nor any possession taken by the County shall operate as a waiver of any portion of the Contract or of any power herein reserved, or of any right to damages. A waiver of any breach of the Contract shall not be held to be a waiver of any other or subsequent breach.

6.4 INSURANCE

The Contractor shall procure and maintain at its own expense and without expense to the County, until final acceptance by the County, of the work covered by the contract, insurance for liability for damages imposed by law, of the kinds and in the amounts hereinafter provided, with insurance companies authorized to do such business in the County covering all operations under the contract whether performed by it or its subcontractors. Within ten (10) days of the Notice to Award and prior to the commencement of any work the Contractor shall furnish to the Cattaraugus County Human Resources a certificate or certificates of insurance in form satisfactory to the Cattaraugus County Human Resources Personnel Officer showing that it has complied with this Section, which certificate or certificates shall provide that the policies shall not be changed or canceled until thirty (30) days written notice has been given to the Cattaraugus County Human Services Department. Failure to supply a satisfactory certificate with ten (10) days after the Notice of Award may result in the cancellation of award and for the forfeiture of the Contractor's bid security, in the sole discretion of the County. The types of insurance are as follows:

- A. Workers' Compensation Insurance. A policy covering the obligations of the Contractor in accordance with the provisions of the Workers' Compensation Law, covering all operations under the contract, whether performed by it or its subcontractor and also under the Disability Benefits Law. The contract, shall be void and of no effect unless the person or corporation making or executing same shall secure compensation and disability benefits coverage for the benefit of, and keep insured during the life of the contract, such employees in compliance with the provisions of the Workers' Compensation Law.
- B. Liability and Property Damage Insurance. Policies following the 1986 Insurance Services Office formats shall be provided. Unless otherwise specifically required by special provision, each policy shall not be amended or contain deductible clauses or coverage exclusions of any nature and shall have limits not less than shown on the sample Certificate of Liability Insurance (Column A – Construction & Maintenance) on page D-15.

For all damages arising during the policy period, shall be furnished in the types (a1.) through (e.) as described below. An umbrella type policy, dedicated to this contract, may be used to meet these limits.

- a1. Contractor's Liability Insurance issued to and covering the liability for damages imposed by law upon the Contractor with respect to all work performed by him under the agreement;
- a2. Contractor's Liability Insurance issued to and covering the liability for damages imposed by law upon EACH SUBCONTRACTOR with respect to all work performed by said subcontractor under the agreement;
- b. Contractor's Protective Liability Insurance issued to and covering the liability for damages imposed by law upon the Contractor with respect to all work under the agreement performed for the Contractor by subcontractors;
- c. Completed Operations' Liability Insurance issued to and covering the liability for damages imposed by law upon the Contractor and each subcontractor arising between the date of final cessation of the work and the date of final acceptance thereof, out of that part of the work performed by each;

- d. Protective Liability Insurance issued to and covering the liability for damages imposed by law upon Cattaraugus County and the Commissioner of Public Works and all employees of the County both officially and personally, any municipality in which the work is being performed, and/or any public benefit corporation, railroad, or public utility whose property or facilities are affected by the work or any consultant inspecting engineer or inspector working for or on the project, and their agents or employees,, with respect to all operations under the agreement by the Contractor or its subcontractors, including omissions and supervisory acts of the State, municipality, public benefit corporation or consultant. Specifically, this includes, but is not necessarily limited to the parties listed below.

Failure to list a firm, organization or municipality, etc. does not eliminate the requirement to provide such coverage.

If the Contractor elects to use the same policy for more than one project, then it must provide with the insurance certificate the Aggregate Limits of Insurance (per project) Endorsement indicating the specific project site and contract number;

- e. Commercial General Liability (Premises, Existence, Hazard) Liability Insurance (formerly called Owner's, Landlord's and Tenant's Liability Insurance) issued to and covering the liability for damages imposed by law upon Cattaraugus County and the Commissioner of Public Works and all employees of the County both officially and personally, any municipality in which the work is being performed, and/or any public benefit corporation, railroad, or public utility whose property or facilities are affected by the work or any consultant inspecting engineer or inspector working for or on the project, and their agents or employees, with respect to temporarily opening any portion of the County construction project under this agreement, until the construction or reconstruction pursuant to the agreement has been accepted by the County. Specifically, this includes, but is not necessarily limited to the parties listed on page D-15 (Column A – Construction & Maintenance).

Failure to list a firm, organization or municipality, etc. does not eliminate the requirement to provide such coverage. This coverage will not be required for contracts involving only turf establishment, landscaping, or traffic signals, which do not involve work on the roadway.

- C. Automobile Liability and Property Damage Insurance. A policy covering the use in connection with the work covered by the Contract Documents of all owned, non-owned and hired vehicles bearing, or, under the circumstances under which they are being used, required by the Motor Vehicle Laws of the State of New York to bear license plates."

List of Additional Insured Parties

County of Cattaraugus, 303 Court Street, Little Valley, NY 14755

6.5 LITIGATION

In the event any litigation shall arise from this contract, the laws of the State of New York shall control any litigation, regardless of which party shall institute such action.

COUNTY OF CATTARAUGUS STANDARD INSURANCE REQUIREMENTS

The insurance companies providing these coverages acknowledge that the Named Insured is entering into a contract with the County of Cattaraugus in which the Named Insured agrees to defend, hold harmless, and indemnify the County, its officials, employees, and agents against all claims resulting from work performed, material handled, and services rendered. In some circumstances it will be necessary to require alternate coverage and limits which will be defined in the bid specifications, contract, lease or agreement. The alternate coverage and limits should be evidenced on the certificate in lieu of the standards printed below.

Minimum Coverage Limits are as follows:

| | A Construction & Maintenance | Aa Low Risk Construction & Maintenance | C Professional | D Property Leased to Others or Use of Facilities | F Livery | G All Purpose Public Entity, Concessionaire | Ga Low Risk All Purpose Public Entity |
|--|--------------------------------------|---|--------------------------------------|---|--------------------------------------|--|--|
| ** COMMERCIAL GENERAL LIABILITY | \$2,000,000 Agg. \$1,000,000 Occ. | \$1,000,000 Agg. \$ 500,000 Occ. | \$2,000,000 Agg. \$1,000,000 Occ. | \$2,000,000 Agg. \$1,000,000 Occ. | \$2,000,000 Agg. \$1,000,000 Occ. | \$2,000,000 Agg. \$1,000,000 Occ. | \$1,000,000 Agg. \$ 500,000 Occ. |
| Prem. - Ops. | Include | Include | Include | Include | Include | Include | Include |
| Prods. - Compl. Ops. | Include | Include | Include | Include | Include | Include | Include |
| Indep. Contractor | Include | Include | Include | Include | Include | Include | Include |
| Contractual | Include | Include | Include | Include | Include | Include | Include |
| Bf Property Damage | Include | Include | Include | Include | Include | Include | Include |
| X,C,U | Include | Include | | Include | Include | Include | Include |
| Personal Injury | Include | Include | | Include | Include | | |
| Liquor Law | | Include | Include | Include | Include | Include | Include |
| Host Liquor | | | | Include | | | |
| ** AUTO LIABILITY | \$1,000,000 CSL | \$1,000,000 CSL | \$1,000,000 CSL | \$1,000,000 CSL | \$1,000,000 CSL | \$1,000,000 CSL | \$1,000,000 CSL |
| Owned | Include | Include | Include | Include | Include | Include | Include |
| Hired | Include | Include | Include | Include | Include | Include | Include |
| Non-Owned | Include | Include | Include | Include | Include | Include | Include |
| ** EXCESS LIABILITY | \$3,000,000 | \$1,000,000 | \$1,000,000 | \$1,000,000 | \$3,000,000 | \$1,000,000 | |
| WORKERS' COMP. DISABILITY | Per attached information sheet | Per attached information sheet | Per attached information sheet | Per attached information sheet | Per attached information sheet | Per attached information sheet | Per attached information sheet |
| EMPLOYER'S LIABILITY | Unlimited | Unlimited | Unlimited | Unlimited | Unlimited | Unlimited | Unlimited |
| *** PROFESSIONAL LIAB. | | | \$3,000,000 Agg. \$1,000,000 Occ. | | | | |

* The Comprehensive/Commercial General Liability limits can be met by one or more policies, or in combination with an Excess and/or Umbrella Liability policy. The COI must indicate if the coverage trigger in an 'Occurrence' form or a 'Claims-made' form. All 'Claims-made' policies shall continue to provide evidence of coverage three (3) years after completion of work or product delivery.

** Cattaraugus County MUST be named as Additional Insured for all acts of Named Insured pursuant to this contract.

*** Professional Liability policies are not required to have the County as Additional Insured

Each policy, as allowed by law, shall be endorsed stating that the contractor's Insurers agree to waive any rights of subrogation against the County of Cattaraugus because of payments for any injury or damages arising out of work performed under this contract.

PART 7 PROSECUTION AND PROGRESS

7.1 NOTICE TO PROCEED

The "Notice to Proceed" (see form on page D-21) will stipulate the date on which it is expected the Contractor will begin the work. Commencement of work by the Contractor shall be deemed and taken as a waiver of this notice on his part. In no case, however, shall the Contractor begin work prior to the date of the signing of the Contract.

7.2 PROSECUTION OF WORK

The Contractor shall start construction operations on the part of the project approved by the Engineer, or set forth in the approved Progress Schedule. The work shall be conducted in such manner and with sufficient materials, equipment, and labor as are considered necessary to insure its completion in accordance with the plans and specifications as interpreted by the Engineer, by the date set forth in the Agreement. Should the prosecution of the work for any reason be discontinued, the Contractor shall notify the Engineer at least 24 hours in advance of resuming operations.

7.3 TEMPORARY SUSPENSION OF WORK

The Engineer shall have the authority to suspend the work wholly or in part by written order for such period as he/she may deem necessary due to unsuitable weather, to conditions considered unfavorable for the suitable prosecution of the work, or to carry out orders given or to perform any provisions of the Contract.

7.4 DATE OF COMPLETION OF CONTRACT WORK

The Contractor shall perform fully, entirely, and in a satisfactory and acceptable manner the work contracted, by the date stipulated in the Agreement.

In adjusting the Agreement date for the completion of the project, all strikes, lock-outs, unusual delays in transportation, or any condition over which the Contractor has no control, and also any suspensions ordered by the Engineer for causes not the fault of the Contractor, shall be excluded from the computation of the contract time for completion of the work. No allowance will be made for delays or suspensions of the prosecution of the work due to the fault of the Contractor.

7.5 TERMINATION OF CONTRACT

If the Contractor is adjudged bankrupt or makes an assignment for the benefit of creditors or a receiver is appointed for the Contractor or any insolvency arrangement proceedings are instituted by or against him, or if the Contractor fails after seven (7) days notice to supply enough properly skilled workers or proper materials or fails to prosecute the work with such diligence as will insure its completion by the Agreement date or shall in any other respect commit a breach of his/her Agreement and fail to remedy the same within seven (7) days after notice thereof, then the County may, by twenty-four (24) hours written notice, terminate the Contractor's right to proceed with the balance of the work or with any portion thereof and may take possession of the work and complete it by Contract or otherwise. The County may utilize such materials, plant and equipment as may be on the site of the work.

7.6 FAILURE TO COMPLETE WORK ON TIME

When the work embraced in the Contract is not completed on or before the date specified therein, engineering and inspection expenses incurred by the County upon the work from the completion date originally fixed in the Agreement to the final date of completion of the work may be charged to the Contractor and be deducted by the County from any payment due the Contractor. Consideration of any extra work or supplemental Contract work added to the original Contract as well as extenuating circumstances beyond the control of the Contractor, will be given due consideration by the County before assessing engineering and inspection charges against the Contractor. The Contractor will be responsible for any delays resulting from causes within the Contractor's control, including inefficient operations, and the Commissioner of Public Works shall be the sole judge of whether such charges shall be assessed against the Contractor.

7.7 ASSIGNMENT

Assignment of the contract shall be in accordance with Section 109 of the General Municipal Law as follows:

§109. Assignment of public contracts

1. A clause shall be inserted in all specifications or contracts hereafter made or awarded by any officer, board or agency of a political subdivision, or of any district therein, prohibiting any contractor, to whom any contract shall be let, granted or awarded, as required by law, from assigning, transferring, conveying, subletting or otherwise disposing of the same, or of his/her right, title, or interest therein, or his/her power to execute such contract, to any other person or corporation without the previous consent in writing of the officer, board or agency awarding the contract.
2. If any contractor, to whom any contract is let, granted or awarded, as required by law, by any officer, board or agency of a political subdivision, or of any district therein, shall without the previous written consent specified in subdivision one of this section, assign, transfer, convey, sublet or otherwise dispose of such contract, or his/her right, title, or interest therein, or his/her power to execute such contract, to any other person or corporation, the officer, board or agency which let, made, granted or awarded such contract shall revoke and annul such contract, and the political subdivision or district therein, as the case may be, and such officer, board or agency shall be relieved and discharged from any and all liability and obligations growing out of such contract to such contractor, and to the person or corporation to which such contract shall have been assigned, transferred, conveyed, sublet or otherwise disposed of, and such contractor, and his/her assignees, transferees or sublessees shall forfeit and lose all moneys theretofore earned under such contract, except so much as may be required to pay his/her employees. The provisions of this section shall not hinder, prevent, or affect an assignment by any such contractor for the benefit of his/her creditors made pursuant to the laws of this state.

PART 8 MEASUREMENT, PAYMENT, AND RECORD KEEPING

8.1 PAYMENTS ON CONTRACT

Payments to the Contractor for work satisfactorily completed will be made monthly in the amount of 95% of the work completed. No monthly payment will be rendered for less than 10% of the Contract amount or \$1,000, whichever is less. The payments will be based on the completed percentage of each unit bid as shown in the Itemized schedule.

The attention of persons intending to make proposals is specifically called to the provisions of Section 70 and 71 of the Lien Law in relation to funds being received by a Contractor for a public improvement. These provisions declare that the funds received by the Contractor shall constitute trust funds in the hands of such Contractor to be applied first to the payment of certain claims.

No certificate approving or authorizing the first partial payment, or in the event taxes shall be found due in accordance with this Section after the first payment to the Contractor, then no certificates approving or authorizing any final payment shall be made to a foreign Contractor unless such Contractor furnishes satisfactory proof that all taxes due by such Contractor under the provisions of Articles 9, 9A, 16, and 16A of the Tax Law have been paid. The certificate of the State Tax Commission to the effect that all such taxes have been paid shall be conclusive proof of the payment of such taxes.

The term "Foreign Contractor" as used in the preceding paragraph means in the case of an individual, a person who is a legal resident of another state or foreign country; and in the case of a firm or co-partnership, one having one or more partners who is a legal resident of another State or foreign country and in the case of a corporation, one having its principal place of business in another State or foreign country.

8.2 DIFFERING SITE CONDITIONS

The Contractor shall promptly, and before the conditions are disturbed, give a written notice to the Engineer of (1) subsurface or latent physical conditions at the site which differ materially from those indicated in this contract, or (2) unknown physical conditions at the site of an unusual nature, which differ materially from those ordinarily encountered and generally recognized as inhering in work of the character provided for in the contract.

The Engineer shall investigate the site conditions promptly after receiving the notice. If the conditions do materially so differ and cause an increase or decrease in the Contractor's cost of, or the time required for, performing any part of the work under this contract, whether or not changed as a result of the conditions, then an equitable adjustment shall be made under this clause and the contract modified in writing accordingly.

No request by the Contractor for an equitable adjustment to the contract under this clause shall be allowed, unless the Contractor has given the written notice required; provided, that the time prescribed above for giving written notice may be extended by the Engineer.

8.3 RECORD KEEPING

In conformance with Cattaraugus County Local Law 12-2012, the contractor and all its subcontractors will submit the following payroll related information to the County on a biweekly basis. Such information shall include, at a minimum, name of employee, title of employee, time reported for work and time left work for each day.

This information is separate from the certified payrolls required for projects governed by Article 8 of the Labor Law.

NOTICE OF AWARD

TO: _____

PROJECT Description:

Sheriff's Department Call Center – Fire Protection Improvements

The County has considered the Bid submitted by you for the above-described work in response to its Advertisement for Bid No. 57 opened Friday, September 28, 2018. You are hereby notified that your Bid has been accepted in the amount of \$ _____. You are required by the General Provisions to execute the Agreement and furnish the required Contractor's Performance Bond and Payment Bond within ten (10) calendar days from the date of this Notice of Award.

If you fail to execute such Agreement and to furnish the Bonds within the ten (10) days from the date of this Notice, then the County will be entitled to consider all your rights arising out of Cattaraugus County's acceptance of your Bid as abandoned and as a forfeiture of your Bid Bond. Cattaraugus County will be entitled to such other rights as may be granted by law.

You are required to return an acknowledged copy of this Notice of Award to Cattaraugus County.

Dated this ____ day of _____ in the year 2018.

OWNER: Cattaraugus County

BY: _____

TITLE: Director of Engineering, Department of Public Works

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE OF AWARD is hereby acknowledged by

Dated this _____ day of _____ in the year _____.

By: _____

Title: _____

NOTICE TO PROCEED

DATE: _____

PROJECT: Sheriff's Department Call Center – Fire Protection Improvements

TO: _____

You are hereby notified to commence work in accordance with the Agreement dated _____, on or before _____. All work shall be completed on or before December 31, 2018 or (90 days from Notice to Proceed), whichever is shorter, and final payment shall be submitted within 45 calendar days of completion of work.

You are required to return an acknowledged copy of this Notice of Proceed to Cattaraugus County

CATTARAUGUS COUNTY

Owner

By: _____

Title: Director of Engineering, Department of Public Works

ACCEPTANCE OF THIS NOTICE

Receipt of the above Notice to Proceed is hereby acknowledged by

Dated this _____ day of _____ in the year _____.

By: _____

Title: _____

CERTIFICATE OF SUBSTANTIAL COMPLETION

DATE:

PROJECT: Sheriff's Department Call Center– Fire Protection Improvements

TO: _____

The performed under this contract has been inspected by authorized representatives of the County, Contractor and Engineer and the Project was found to be substantially completed in accordance with the contract documents.

DEFINITION OF SUBSTANTIAL COMPLETION

The date of substantial completion of a project or a specified area of a project is the date when the construction is sufficiently completed, in accordance with the contract documents, as modified by any change orders agreed to by the parties, so that the County can occupy or utilize the project or specified area of the project for the use it was intended.

A tentative list of items to be completed or corrected is attached hereto. This list may not be exhaustive, and the failure to include an item on it does not alter the responsibility of the Contractor to complete all the work in accordance with the contract documents

Engineer

By _____
Authorized Representative

Date _____

The Contractor accepts the above Certificate of Substantial Completion and agrees to complete and correct the items on the tentative list with the time indicated.

Contractor

By _____
Authorized Representative

Date _____

The County Accepts the project or specified area of the project as substantially complete and will assume full possession of the project or specified are of the project at _____(time), on _____(date).

Cattaraugus County

By _____
Authorized Representative

Date _____

SECTION E

DEPARTMENT OF LABOR CONTRACT REQUIREMENTS AND PREVAILING WAGE RATE SCHEDULES

Labor classifications not appearing on the following rate sheets can be used only with the consent of the Commissioner of Public Works and then the rate to be paid will be given by the Commissioner of Public Works after advising with the State Department of Labor.

All requests for minimum wage rates for additional occupations shall be directed through the County.

The bidder shall take into account in his/her bid all changes in wage rates and supplements that may be forthcoming during the time the contract is in force.

The Contractor in the execution of the work under the contract in accordance with the provisions of the specifications and the special provisions to the specifications may submit job orders to and may also request the referral of lists of qualified applicants for the work of the NEW YORK STATE EMPLOYMENT SERVICE.



Andrew M. Cuomo, Governor

Roberta Reardon, Commissioner

Cattaraugus County DPW

Dawn Smith, Procurement Specialist
8810 Route 242
Little Valley NY 14755

Schedule Year 2018 through 2019
Date Requested 08/23/2018
PRC# 2018010316

Location Sheriff Department Call Center
Project ID# Sheriff Call Cnt
Project Type Upgrade existing fire protection system to a double interlock pre-action system and add a dry chemical fire suppression system for the data rooms and integrate the systems.

PREVAILING WAGE SCHEDULE FOR ARTICLE 8 PUBLIC WORK PROJECT

Attached is the current schedule(s) of the prevailing wage rates and prevailing hourly supplements for the project referenced above. A unique Prevailing Wage Case Number (PRC#) has been assigned to the schedule(s) for your project.

The schedule is effective from July 2018 through June 2019. All updates, corrections, posted on the 1st business day of each month, and future copies of the annual determination are available on the Department's website www.labor.state.ny.us. Updated PDF copies of your schedule can be accessed by entering your assigned PRC# at the proper location on the website.

It is the responsibility of the contracting agency or its agent to annex and make part, the attached schedule, to the specifications for this project, when it is advertised for bids and /or to forward said schedules to the successful bidder(s), immediately upon receipt, in order to insure the proper payment of wages.

Please refer to the "General Provisions of Laws Covering Workers on Public Work Contracts" provided with this schedule, for the specific details relating to other responsibilities of the Department of Jurisdiction.

Upon completion or cancellation of this project, enter the required information and mail **OR** fax this form to the office shown at the bottom of this notice, **OR** fill out the electronic version via the NYSDOL website.

NOTICE OF COMPLETION / CANCELLATION OF PROJECT

Date Completed: _____ Date Cancelled: _____

Name & Title of Representative: _____

Phone: (518) 457-5589 Fax: (518) 485-1870
W. Averell Harriman State Office Campus, Bldg. 12, Room 130, Albany, NY 12240

General Provisions of Laws Covering Workers on Article 8 Public Work Contracts

Introduction

The Labor Law requires public work contractors and subcontractors to pay laborers, workers, or mechanics employed in the performance of a public work contract not less than the prevailing rate of wage and supplements (fringe benefits) in the locality where the work is performed.

Responsibilities of the Department of Jurisdiction

A Department of Jurisdiction (Contracting Agency) includes a state department, agency, board or commission; a county, city, town or village; a school district, board of education or board of cooperative educational services; a sewer, water, fire, improvement and other district corporation; a public benefit corporation; and a public authority awarding a public work contract.

The Department of Jurisdiction (Contracting Agency) awarding a public work contract **MUST** obtain a Prevailing Rate Schedule listing the hourly rates of wages and supplements due the workers to be employed on a public work project. This schedule may be obtained by completing and forwarding a "Request for wage and Supplement Information" form (PW 39) to the Bureau of Public Work. The Prevailing Rate Schedule **MUST** be included in the specifications for the contract to be awarded and is deemed part of the public work contract.

Upon the awarding of the contract, the law requires that the Department of Jurisdiction (Contracting Agency) furnish the following information to the Bureau: the name and address of the contractor, the date the contract was let and the approximate dollar value of the contract. To facilitate compliance with this provision of the Labor Law, a copy of the Department's "Notice of Contract Award" form (PW 16) is provided with the original Prevailing Rate Schedule.

The Department of Jurisdiction (Contracting Agency) is required to notify the Bureau of the completion or cancellation of any public work project. The Department's PW 200 form is provided for that purpose.

Both the PW 16 and PW 200 forms are available for completion [online](#).

Hours

No laborer, worker, or mechanic in the employ of a contractor or subcontractor engaged in the performance of any public work project shall be permitted to work more than eight hours in any day or more than five days in any week, except in cases of extraordinary emergency. The contractor and the Department of Jurisdiction (Contracting Agency) may apply to the Bureau of Public Work for a dispensation permitting workers to work additional hours or days per week on a particular public work project. There are very few exceptions to this rule. Complete information regarding these exceptions is available on the "[4 Day / 10 Hour Work Schedule](#)" form (PW 30.1).

Wages and Supplements

The wages and supplements to be paid and/or provided to laborers, workers, and mechanics employed on a public work project shall be not less than those listed in the current Prevailing Rate Schedule for the locality where the work is performed. If a prime contractor on a public work project has not been provided with a Prevailing Rate Schedule, the contractor must notify the Department of Jurisdiction (Contracting Agency) who in turn must request an original Prevailing Rate Schedule from the Bureau of Public Work. Requests may be submitted by: mail to NYSDOL, Bureau of Public Work, State Office Bldg. Campus, Bldg. 12, Rm. 130, Albany, NY 12240; Fax to Bureau of Public Work (518) 485-1870; or electronically at the NYSDOL website www.labor.ny.gov.

Upon receiving the original schedule, the Department of Jurisdiction (Contracting Agency) is **REQUIRED** to provide complete copies to all prime contractors who in turn **MUST**, by law, provide copies of all applicable county schedules to each subcontractor and obtain from each subcontractor, an affidavit certifying such schedules were received. If the original schedule expired, the contractor may obtain a copy of the new annual determination from the NYSDOL website www.labor.ny.gov.

The Commissioner of Labor makes an annual determination of the prevailing rates. This determination is in effect from July 1st through June 30th of the following year. The annual determination is available on the NYSDOL website www.labor.ny.gov.

Payrolls and Payroll Records

Contractors and subcontractors are required to establish, maintain, and preserve for not less than six (6) years, contemporaneous, true, and accurate payroll records. Payrolls must show the following information for each person employed on a public work project: Name, Address, Last 4 Digits of Social Security Number, Classification(s) in which the worker was employed, Hourly wage rate(s) paid, Supplements paid or provided, and Daily and weekly number of hours worked in each classification.

The filing of payrolls to the Department of Jurisdiction is a condition of payment. Every contractor and subcontractor shall submit to the Department of Jurisdiction (Contracting Agency), within thirty (30) days after issuance of its first payroll and every thirty (30) days thereafter, a transcript of the original payrolls, subscribed and affirmed as true under penalty of perjury. The original payrolls or transcripts must be maintained for a period of at least (5) years, by the Department of Jurisdiction (Contracting Agency), from the project's date of completion. The Department of Jurisdiction (Contracting Agency) shall collect, review for facial validity, and maintain such payrolls.

In addition, the Commissioner of Labor may require contractors to furnish, with ten (10) days of a request, payroll records sworn to as their validity and accuracy for public work and private work. Payroll records include, but are not limited to time cards, work description sheets, proof that supplements were provided, cancelled payroll checks and payrolls. Failure to provide the requested information within the allotted ten (10) days will result in the withholding of up to 25% of the contract, not to exceed \$100,000.00. If the contractor or subcontractor does not maintain a place of business in New York State and the amount of the contract exceeds \$25,000.00, payroll records and certifications must be kept on the project worksite.

The prime contractor is responsible for any underpayments of prevailing wages or supplements by any subcontractor.

All contractors or their subcontractors shall provide to their subcontractors a copy of the Prevailing Rate Schedule specified in the public work contract as well as any subsequently issued schedules. A failure to provide these schedules by a contractor or subcontractor is a violation of Article 8, Section 220-a of the Labor Law.

All subcontractors engaged by a public work project contractor or its subcontractor, upon receipt of the original schedule and any subsequently issued schedules, shall provide to such contractor a verified statement attesting that the subcontractor has received the Prevailing Rate Schedule and will pay or provide the applicable rates of wages and supplements specified therein. (See NYS Labor Laws, Article 8 . Section 220-a).

Determination of Prevailing Wage and Supplement Rate Updates Applicable to All Counties

The wages and supplements contained in the annual determination become effective July 1st whether or not the new determination has been received by a given contractor. Care should be taken to review the rates for obvious errors. Any corrections should be brought to the Department's attention immediately. It is the responsibility of the public work contractor to use the proper rates. If there is a question on the proper classification to be used, please call the district office located nearest the project. Any errors in the annual determination will be corrected and posted to the NYSDOL website on the first business day of each month. Contractors are responsible for paying these updated rates as well, retroactive to July 1st.

When you review the schedule for a particular occupation, your attention should be directed to the dates above the column of rates. These are the dates for which a given set of rates is effective. To the extent possible, the Department posts rates in its possession that cover periods of time beyond the July 1st to June 30th time frame covered by a particular annual determination. Rates that extend beyond that instant time period are informational ONLY and may be updated in future annual determinations that actually cover the then appropriate July 1st to June 30th time period.

Withholding of Payments

When a complaint is filed with the Commissioner of Labor alleging the failure of a contractor or subcontractor to pay or provide the prevailing wages or supplements, or when the Commissioner of Labor believes that unpaid wages or supplements may be due, payments on the public work contract shall be withheld from the prime contractor in a sufficient amount to satisfy the alleged unpaid wages and supplements, including interest and civil penalty, pending a final determination.

When the Bureau of Public Work finds that a contractor or subcontractor on a public work project failed to pay or provide the requisite prevailing wages or supplements, the Bureau is authorized by Sections 220-b and 235.2 of the Labor Law to so notify the financial officer of the Department of Jurisdiction (Contracting Agency) that awarded the public work contract. Such officer MUST then withhold or cause to be withheld from any payment due the prime contractor on account of such contract the amount indicated by the Bureau as sufficient to satisfy the unpaid wages and supplements, including interest and any civil penalty that may be assessed by the Commissioner of Labor. The withholding continues until there is a final determination of the underpayment by the Commissioner of Labor or by the court in the event a legal proceeding is instituted for review of the determination of the Commissioner of Labor.

The Department of Jurisdiction (Contracting Agency) shall comply with this order of the Commissioner of Labor or of the court with respect to the release of the funds so withheld.

Summary of Notice Posting Requirements

The current Prevailing Rate Schedule must be posted in a prominent and accessible place on the site of the public work project. The prevailing wage schedule must be encased in, or constructed of, materials capable of withstanding adverse weather conditions and be titled "PREVAILING RATE OF WAGES" in letters no smaller than two (2) inches by two (2) inches.

The ["Public Work Project"](#) notice must be posted at the beginning of the performance of every public work contract, on each job site.

Every employer providing workers' compensation insurance and disability benefits must post notices of such coverage in the format prescribed by the Workers' Compensation Board in a conspicuous place on the jobsite.

Every employer subject to the NYS Human Rights Law must conspicuously post at its offices, places of employment, or employment training centers, notices furnished by the State Division of Human Rights.

Employers liable for contributions under the Unemployment Insurance Law must conspicuously post on the jobsite notices furnished by the NYS Department of Labor.

Apprentices

Employees cannot be paid apprentice rates unless they are individually registered in a program registered with the NYS Commissioner of Labor. The allowable ratio of apprentices to journeymen in any craft classification can be no greater than the statewide building trade ratios promulgated by the Department of Labor and included with the Prevailing Rate Schedule. An employee listed on a payroll as an apprentice who is not registered as above, must be paid the prevailing journeyworker's wage rate for the classification of work the employee is actually performing.

NYSDOL Labor Law, Article 8, Section 220-3, require that only apprentices individually registered with the NYS Department of Labor may be paid apprenticeship rates on a public work project. No other Federal or State Agency of office registers apprentices in New York State.

Persons wishing to verify the apprentice registration of any person must do so in writing by mail, to the NYSDOL Office of Employability Development / Apprenticeship Training, State Office Bldg. Campus, Bldg. 12, Albany, NY 12240 or by Fax to NYSDOL Apprenticeship Training (518) 457-7154. All requests for verification must include the name and social security number of the person for whom the information is requested.

The only conclusive proof of individual apprentice registration is written verification from the NYSDOL Apprenticeship Training Albany Central office. Neither Federal nor State Apprenticeship Training offices outside of Albany can provide conclusive registration information.

It should be noted that the existence of a registered apprenticeship program is not conclusive proof that any person is registered in that program. Furthermore, the existence or possession of wallet cards, identification cards, or copies of state forms is not conclusive proof of the registration of any person as an apprentice.

Interest and Penalties

In the event that an underpayment of wages and/or supplements is found:

- Interest shall be assessed at the rate then in effect as prescribed by the Superintendent of Banks pursuant to section 14-a of the Banking Law, per annum from the date of underpayment to the date restitution is made.
- A Civil Penalty may also be assessed, not to exceed 25% of the total of wages, supplements, and interest due.

Debarment

Any contractor or subcontractor and/or its successor shall be ineligible to submit a bid on or be awarded any public work contract or subcontract with any state, municipal corporation or public body for a period of five (5) years when:

- Two (2) willful determinations have been rendered against that contractor or subcontractor and/or its successor within any consecutive six (6) year period.
- There is any willful determination that involves the falsification of payroll records or the kickback of wages or supplements.

Criminal Sanctions

Willful violations of the Prevailing Wage Law (Article 8 of the Labor Law) may be a felony punishable by fine or imprisonment of up to 15 years, or both.

Discrimination

No employee or applicant for employment may be discriminated against on account of age, race, creed, color, national origin, sex, disability or marital status.

No contractor, subcontractor nor any person acting on its behalf, shall by reason of race, creed, color, disability, sex or national origin discriminate against any citizen of the State of New York who is qualified and available to perform the work to which the employment relates (NYS Labor Law, Article 8, Section 220-e(a)).

No contractor, subcontractor, nor any person acting on its behalf, shall in any manner, discriminate against or intimidate any employee on account of race, creed, color, disability, sex, or national origin (NYS Labor Law, Article 8, Section 220-e(b)).

The Human Rights Law also prohibits discrimination in employment because of age, marital status, or religion.

There may be deducted from the amount payable to the contractor under the contract a penalty of \$50.00 for each calendar day during which such person was discriminated against or intimidated in violation of the provision of the contract (NYS Labor Law, Article 8, Section 220-e(c)).

The contract may be cancelled or terminated by the State or municipality. All monies due or to become due thereunder may be forfeited for a second or any subsequent violation of the terms or conditions of the anti-discrimination sections of the contract (NYS Labor Law, Article 8, Section 220-e(d)).

Every employer subject to the New York State Human Rights Law must conspicuously post at its offices, places of employment, or employment training centers notices furnished by the State Division of Human Rights.

Workers' Compensation

In accordance with Section 142 of the State Finance Law, the contractor shall maintain coverage during the life of the contract for the benefit of such employees as required by the provisions of the New York State Workers' Compensation Law.

A contractor who is awarded a public work contract must provide proof of workers' compensation coverage prior to being allowed to begin work.

The insurance policy must be issued by a company authorized to provide workers' compensation coverage in New York State. Proof of coverage must be on form C-105.2 (Certificate of Workers' Compensation Insurance) and must name this agency as a certificate holder.

If New York State coverage is added to an existing out-of-state policy, it can only be added to a policy from a company authorized to write workers' compensation coverage in this state. The coverage must be listed under item 3A of the information page.

The contractor must maintain proof that subcontractors doing work covered under this contract secured and maintained a workers' compensation policy for all employees working in New York State.

Every employer providing worker's compensation insurance and disability benefits must post notices of such coverage in the format prescribed by the Workers' Compensation Board in a conspicuous place on the jobsite.

Unemployment Insurance

Employers liable for contributions under the Unemployment Insurance Law must conspicuously post on the jobsite notices furnished by the New York State Department of Labor.



Andrew M. Cuomo, Governor

Roberta Reardon, Commissioner

Cattaraugus County DPW

Dawn Smith, Procurement Specialist
8810 Route 242
Little Valley NY 14755

Schedule Year 2018 through 2019
Date Requested 08/23/2018
PRC# 2018010316

Location Sheriff Department Call Center
Project ID# Sheriff Call Cnt
Project Type Upgrade existing fire protection system to a double interlock pre-action system and add a dry chemical fire suppression system for the data rooms and integrate the systems.

Notice of Contract Award

New York State Labor Law, Article 8, Section 220.3a requires that certain information regarding the awarding of public work contracts, be furnished to the Commissioner of Labor. One "Notice of Contract Award" (PW 16, which may be photocopied), **MUST** be completed for **EACH** prime contractor on the above referenced project.

Upon notifying the successful bidder(s) of this contract, enter the required information and mail **OR** fax this form to the office shown at the bottom of this notice, **OR** fill out the electronic version via the NYSDOL website.

Contractor Information

All information must be supplied

| | | |
|---|--|------------|
| Federal Employer Identification Number: _____ | | |
| Name: _____ | | |
| Address: _____ _____ | | |
| City: _____ | State: _____ | Zip: _____ |
| Amount of Contract: \$ _____ | Contract Type: | |
| Approximate Starting Date: ____/____/____ | <input type="checkbox"/> (01) General Construction | |
| Approximate Completion Date: ____/____/____ | <input type="checkbox"/> (02) Heating/Ventilation | |
| | <input type="checkbox"/> (03) Electrical | |
| | <input type="checkbox"/> (04) Plumbing | |
| | <input type="checkbox"/> (05) Other : _____ | |

Phone: (518) 457-5589 Fax: (518) 485-1870
W. Averell Harriman State Office Campus, Bldg. 12, Room 130, Albany, NY 12240

IMPORTANT NOTICE

FOR

CONTRACTORS & CONTRACTING AGENCIES

Social Security Numbers on Certified Payrolls

The Department of Labor is cognizant of the concerns of the potential for misuse or inadvertent disclosure of social security numbers. Identity theft is a growing problem and we are sympathetic to contractors' concerns with regard to inclusion of this information on payrolls if another identifier will suffice.

For these reasons, ***the substitution of the use of the last four digits of the social security number on certified payrolls submitted to contracting agencies on public work projects is now acceptable to the Department of Labor.***

NOTE: This change does not affect the Department's ability to request and receive the entire social security number from employers during the course of its public work / prevailing wage investigations.

**To all State Departments, Agency Heads and Public Benefit Corporations
IMPORTANT NOTICE REGARDING PUBLIC WORK ENFORCEMENT FUND**

Budget Policy & Reporting Manual

B-610

Public Work Enforcement Fund

effective date December 7, 2005

1. Purpose and Scope:

This Item describes the Public Work Enforcement Fund (the Fund, PWEF) and its relevance to State agencies and public benefit corporations engaged in construction or reconstruction contracts, maintenance and repair, and announces the recently-enacted increase to the percentage of the dollar value of such contracts that must be deposited into the Fund. This item also describes the roles of the following entities with respect to the Fund:

- New York State Department of Labor (DOL),
- The Office of the State of Comptroller (OSC), and
- State agencies and public benefit corporations.

2. Background and Statutory References:

DOL uses the Fund to enforce the State's Labor Law as it relates to contracts for construction or reconstruction, maintenance and repair, as defined in subdivision two of Section 220 of the Labor Law. State agencies and public benefit corporations participating in such contracts are required to make payments to the Fund.

Chapter 511 of the Laws of 1995 (as amended by Chapter 513 of the Laws of 1997, Chapter 655 of the Laws of 1999, Chapter 376 of the Laws of 2003 and Chapter 407 of the Laws of 2005) established the Fund.

3. Procedures and Agency Responsibilities:

The Fund is supported by transfers and deposits based on the value of contracts for construction and reconstruction, maintenance and repair, as defined in subdivision two of Section 220 of the Labor Law, into which all State agencies and public benefit corporations enter.

Chapter 407 of the Laws of 2005 increased the amount required to be provided to this fund to .10 of one-percent of the total cost of each such contract, to be calculated at the time agencies or public benefit corporations enter into a new contract or if a contract is amended. The provisions of this bill became effective August 2, 2005.

To all State Departments, Agency Heads and Public Benefit Corporations
IMPORTANT NOTICE REGARDING PUBLIC WORK ENFORCEMENT FUND

OSC will report to DOL on all construction-related ("D") contracts approved during the month, including contract amendments, and then DOL will bill agencies the appropriate assessment monthly. An agency may then make a determination if any of the billed contracts are exempt and so note on the bill submitted back to DOL. For any instance where an agency is unsure if a contract is or is not exempt, they can call the Bureau of Public Work at the number noted below for a determination. Payment by check or journal voucher is due to DOL within thirty days from the date of the billing. DOL will verify the amounts and forward them to OSC for processing.

For those contracts which are not approved or administered by the Comptroller, monthly reports and payments for deposit into the Public Work Enforcement Fund must be provided to the Administrative Finance Bureau at the DOL within 30 days of the end of each month or on a payment schedule mutually agreed upon with DOL.

Reports should contain the following information:

- Name and billing address of State agency or public benefit corporation;
- State agency or public benefit corporation contact and phone number;
- Name and address of contractor receiving the award;
- Contract number and effective dates;
- Contract amount and PWEF assessment charge (if contract amount has been amended, reflect increase or decrease to original contract and the adjustment in the PWEF charge); and
- Brief description of the work to be performed under each contract.

Checks and Journal Vouchers, payable to the "New York State Department of Labor" should be sent to:

Department of Labor
Administrative Finance Bureau-PWEF Unit
Building 12, Room 464
State Office Campus
Albany, NY 12240

Any questions regarding billing should be directed to NYSDOL's Administrative Finance Bureau-PWEF Unit at (518) 457-3624 and any questions regarding Public Work Contracts should be directed to the Bureau of Public Work at (518) 457-5589.

Construction Industry Fair Play Act

Required Posting For Labor Law Article 25-B § 861-d

Construction industry employers must post the "Construction Industry Fair Play Act" notice in a prominent and accessible place on the job site.

Failure to post the notice can result in penalties of up to \$1,500 for a first offense and up to \$5,000 for a second offense.

The posting is included as part of this wage schedule. Additional copies may be obtained from the NYS DOL website, www.labor.ny.gov.

If you have any questions concerning the Fair Play Act, please call the State Labor Department toll-free at 1-866-435-1499 or email us at: dol.misclassified@labor.state.ny.us.



New York State Department of Labor
Required Notice under Article 25-B of the Labor Law

**ATTENTION ALL EMPLOYEES, CONTRACTORS AND SUBCONTRACTORS:
YOU ARE COVERED BY THE
CONSTRUCTION INDUSTRY FAIR PLAY ACT**

The law says that you are an employee unless:

- You are free from direction and control in performing your job AND
- You perform work that is not part of the usual work done by the business that hired you AND
- You have an independently established business

Your employer cannot consider you to be an independent contractor unless all three of these facts apply to your work.

**IT IS AGAINST THE LAW FOR AN EMPLOYER TO MISCLASSIFY EMPLOYEES AS
INDEPENDENT CONTRACTORS OR PAY EMPLOYEES OFF-THE-BOOKS.**

Employee rights. If you are an employee:

- You are entitled to state and federal worker protections such as
 - unemployment benefits, if unemployed through no fault of your own, able to work, and otherwise qualified
 - workers' compensation benefits for on-the-job injuries
 - payment for wages earned, minimum wage, and overtime (under certain conditions)
 - prevailing wages on public work projects
 - the provisions of the National Labor Relations Act and
 - a safe work environment
- It is a violation of this law for employers to retaliate against anyone who asserts their rights under the law. Retaliation subjects an employer to civil penalties, a private lawsuit or both.

Independent Contractors: If you are an independent contractor:

- You must pay all taxes required by New York State and Federal Law.

Penalties for paying off-the-books or improperly treating employees as independent contractors:

- **Civil Penalty** First Offense: up to \$2,500 per employee.
Subsequent Offense(s): up to \$5,000 per employee.
- **Criminal Penalty** First Offense: Misdemeanor - up to 30 days in jail, up to a \$25,000 fine and debarment from performing Public Work for up to one year.
Subsequent Offense(s): Misdemeanor - up to 60 days in jail, up to a \$50,000 fine and debarment from performing Public Work for up to 5 years.

If you have questions about your employment status or believe that your employer may have violated your rights and you want to file a complaint, call the Department of Labor at 1(866)435-1499 or send an email to dol.misclassified@labor.state.ny.us. All complaints of fraud and violations are taken seriously and you can remain anonymous.

Employer Name:

WORKER NOTIFICATION

(Labor Law §220, paragraph a of subdivision 3-a)

Effective February 24, 2008

This provision is an addition to the existing prevailing wage rate law, Labor Law §220, paragraph a of subdivision 3-a. It requires contractors and subcontractors to provide written notice to all laborers, workers or mechanics of the *prevailing wage rate* for their particular job classification *on each pay stub**. It also requires contractors and subcontractors to *post a notice* at the beginning of the performance of every public work contract *on each job site* that includes the telephone number and address for the Department of Labor and a statement informing laborers, workers or mechanics of their right to contact the Department of Labor if he/she is not receiving the proper prevailing rate of wages and/or supplements for his/her particular job classification. The required notification will be provided with each wage schedule, may be downloaded from our website www.labor.state.ny.us or made available upon request by contacting the Bureau of Public Work at 518-457-5589.

* In the event that the required information will not fit on the pay stub, an accompanying sheet or attachment of the information will suffice.

Attention Employees

THIS IS A: **PUBLIC WORK PROJECT**

If you are employed on this project as a **worker, laborer, or mechanic** you are entitled to receive the **prevailing wage and supplements rate** for the classification at which you are working.

Chapter 629 of the Labor Laws of 2007:

These wages are set by law and must be posted at the work site. They can also be found at:
www.labor.ny.gov

If you feel that you have not received proper wages or benefits, please call our nearest office.*

| | | | |
|---------------|----------------|--------------|----------------|
| Albany | (518) 457-2744 | Patchogue | (631) 687-4882 |
| Binghamton | (607) 721-8005 | Rochester | (585) 258-4505 |
| Buffalo | (716) 847-7159 | Syracuse | (315) 428-4056 |
| Garden City | (516) 228-3915 | Utica | (315) 793-2314 |
| New York City | (212) 932-2419 | White Plains | (914) 997-9507 |
| Newburgh | (845) 568-5156 | | |

* For New York City government agency construction projects, please contact the Office of the NYC Comptroller at (212) 669-4443, or www.comptroller.nyc.gov – click on Bureau of Labor Law.

Contractor Name: _____

Project Location: _____

OSHA 10-hour Construction Safety and Health Course – S1537-A

Effective July 18, 2008

This provision is an addition to the existing prevailing wage rate law, Labor Law §220, section 220-h. It requires that on all public work projects of at least \$250,000.00, all laborers, workers and mechanics working on the site, be certified as having successfully completed the OSHA 10-hour construction safety and health course. It further requires that the advertised bids and contracts for every public work contract of at least \$250,000.00, contain a provision of this requirement.

NOTE: The OSHA 10 Legislation only applies to workers on a public work project that are required, under Article 8, to receive the prevailing wage.

Where to find OSHA 10-hour Construction Course

1. NYS Department of Labor website for scheduled outreach training at:

www.labor.state.ny.us/workerprotection/safetyhealth/DOSH_ONSITE_CONSULTATION.shtm

2. OSHA Training Institute Education Centers:

Rochester Institute of Technology OSHA Education Center

Rochester, NY

Donna Winter

Fax (585) 475-6292

e-mail: dlwtpo@rit.edu

(866) 385-7470 Ext. 2919

www.rit.edu/~outreach/course.php3?CourseID=54

Atlantic OSHA Training Center

UMDNJ – School of Public Health

Piscataway, NJ

Janet Crooks

Fax (732) 235-9460

e-mail: crooksje@umdnj.edu

(732) 235-9455

<https://ophs.umdnj.edu/wconnect/ShowSchedule.awp?~~GROUP~AOTCON~10~>

Atlantic OSHA Training Center

University at Buffalo

Buffalo, New York

Joe Syracuse

Fax (716) 829-2806

e-mail: <mailto:japs@buffalo.edu>

(716) 829-2125

http://www.smbs.buffalo.edu/CENTERS/trc/schedule_OSHA.php

Keene State College

Manchester, NH

Leslie Singleton

e-mail: lsingleton@keene.edu

(800) 449-6742

www.keene.edu/courses/print/courses_oshacfm

3. List of trainers and training schedules for OSHA outreach training at:

www.OutreachTrainers.org

Requirements for OSHA 10 Compliance

Chapter 282 of the Laws of 2007, codified as Labor Law 220-h took effect on July 18, 2008. The statute provides as follows:

The advertised specifications for every contract for public work of \$250,000.00 or more must contain a provision requiring that every worker employed in the performance of a public work contract shall be certified as having completed an OSHA 10 safety training course. The clear intent of this provision is to require that all employees of public work contractors, required to be paid prevailing rates, receive such training “prior to the performing any work on the project.”

The Bureau will enforce the statute as follows:

All contractors and sub contractors must attach a copy of proof of completion of the OSHA 10 course to the first certified payroll submitted to the contracting agency and on each succeeding payroll where any new or additional employee is first listed.

Proof of completion may include but is not limited to:

- Copies of bona fide course completion card (*Note: Completion cards do not have an expiration date.*)
- Training roster, attendance record of other documentation from the certified trainer pending the issuance of the card.
- Other valid proof

******A certification by the employer attesting that all employees have completed such a course is not sufficient proof that the course has been completed.

Any questions regarding this statute may be directed to the New York State Department of Labor, Bureau of Public Work at 518-485-5696.

WICKS Reform 2008

(For all contracts advertised or solicited for bid on or after 7/1/08)

- Raises the threshold for public work projects subject to the Wicks Law requiring separate specifications and bidding for the plumbing, heating and electrical work. The total project's threshold would increase from \$50,000 to: \$3 million in Bronx, Kings, New York, Queens and Richmond counties; \$1.5 million in Nassau, Suffolk and Westchester counties; and \$500,000 in all other counties.
- For projects below the monetary threshold, bidders must submit a sealed list naming each subcontractor for the plumbing, HVAC and electrical work and the amount to be paid to each. The list may not be changed unless the public owner finds a legitimate construction need, including a change in specifications or costs or use of a Project Labor Agreement (PLA), and must be open to public inspection.
- Allows the state and local agencies and authorities to waive the Wicks Law and use a PLA if it will provide the best work at the lowest possible price. If a PLA is used, all contractors shall participate in apprentice training programs in the trades of work it employs that have been approved by the Department of Labor (DOL) for not less than three years. They shall also have at least one graduate in the last three years and use affirmative efforts to retain minority apprentices. PLA's would be exempt from Wicks, but deemed to be public work subject to prevailing wage enforcement.
- The Commissioner of Labor shall have the power to enforce separate specification requirements on projects, and may issue stop-bid orders against public owners for non-compliance.
- Other new monetary thresholds, and similar sealed bidding for non-Wicks projects, would apply to certain public authorities including municipal housing authorities, NYC Construction Fund, Yonkers Educational Construction Fund, NYC Municipal Water Finance Authority, Buffalo Municipal Water Finance Authority, Westchester County Health Care Association, Nassau County Health Care Corp., Clifton-Fine Health Care Corp., Erie County Medical Center Corp., NYC Solid Waste Management Facilities, and the Dormitory Authority.
- Reduces from 15 to 7 days the period in which contractors must pay subcontractors.

IMPORTANT INFORMATION

Regarding Use of Form PW30.1 (Previously 30R)

“Employer Registration for Use of 4 Day / 10 Hour Work Schedule”

To use the ‘4 Day / 10 Hour Work Schedule’:

There **MUST** be a *Dispensation of Hours (PW30)* in place on the project

AND

You **MUST** register your intent to work 4 / 10 hour days, by completing the PW30.1 Form.

REMEMBER...

The ‘4 Day / 10 Hour Work Schedule’ applies **ONLY** to Job Classifications and Counties listed on the PW30.1 Form.

Do not write in any additional Classifications or Counties.

(Please note : For each Job Classification check the individual wage schedule for specific details regarding their 4/10 hour day posting.)

Instructions for Completing Form PW30.1

(Previously 30R)

“Employer Registration for Use of 4 Day / 10 Hour Work Schedule”

Before completing Form PW30.1 check to be sure ...

- There is a *Dispensation of Hours* in place on the project.
- The 4 Day / 10 Hour Work Schedule applies to the Job Classifications you will be using.
- The 4 Day / 10 Hour Work Schedule applies to the County / Counties where the work will take place.

Instructions (Type or Print legibly):

Contractor Information:

- Enter the Legal Name of the business, FEIN, Street Address, City, State, Zip Code; the Company's Phone and Fax numbers; and the Company's email address (if applicable)
- Enter the Name of a Contact Person for the Company along with their Phone and Fax numbers, and the personal email address (if applicable)

Project Information:

- Enter the Prevailing Rate Case number (PRC#) assigned to this project
- Enter the Project Name / Type (i.e. Smithtown CSD – Replacement of HS Roof)
- Enter the Exact Location of Project (i.e. Smithtown HS, 143 County Route #2, Smithtown, NY; Bldgs. 1 & 2)
- If you are a Subcontractor, enter the name of the Prime Contractor for which you work
- On the Checklist of Job Classifications -
 - Go to pages 2 and 3 of the form
 - Place a checkmark in the box to the right of the Job Classification you are choosing
 - Mark all Job Classifications that apply

Do not write in any additional Classifications or Counties.

Requestor Information:

- Enter the name of the person submitting the registration, their title with the company, and the date the registration is filled out

Return Completed Form:

- **Mail** the completed PW30.1 form to: NYSDOL Bureau of Public Work, SOBC – Bldg.12 – Rm.130, Albany, NY 12240 **-OR-**
- **Fax** the completed PW30.1 form to: NYSDOL Bureau of Public Work at (518)485-1870



Department of Labor

Bureau of Public Work Harriman
State Office Campus
Building 12, Room 130
Albany, New York 12240
Phone: (518) 457-5589 | Fax: (518) 485-1870
www.labor.ny.gov

Employer Registration for Use of 4 Day / 10 Hour Work Schedule

Before completing this form, make sure that:

- There is a **Dispensation of Hours** in place on the project.
- The 4 Day / 10 Hour Work Schedule applies to the Job Classifications you will be using.
- The 4 Day / 10 Hour Work Schedule applies to the County / Counties where the work will take place.

Please **type or print** the requested information and then **mail or fax** to the address above.

Contractor Information

Company Name: _____ FEIN: _____

Address: _____

City: _____ State: _____ Zip Code: _____

Phone No: _____ Fax No: _____ Email: _____

Contact Person: _____

Phone No: _____ Fax No: _____ Email: _____

Project Information

Project PRC#: _____ Project Name/Type: _____

Exact Location
of Project: _____ County: _____

(If you are Subcontractor)

Prime Contractor Name: _____

Job Classification(s) to Work 4/10 Schedule: *(Choose all that apply on Job Classification Checklist - Pages 3-8)*
*** Do not write in any additional Classifications or Counties***

Requestor Information

Name: _____

Title: _____ Date: _____

Please use the list below with the number assigned to each county as a reference to the corresponding numbers listed in the following pages under **Entire Counties & Partial Counties**.

- | | | | |
|-----|-----------------------------|-----|---------------------------------|
| 1. | Albany County | 33. | Oneida County |
| 2. | Allegany County | 34. | Onondaga County |
| 3. | Bronx County | 35. | Ontario County |
| 4. | Broome County | 36. | Orange County |
| 5. | Cattaraugus County | 37. | Orleans County |
| 6. | Cayuga County | 38. | Oswego County |
| 7. | Chautauqua County | 39. | Otsego County |
| 8. | Chemung County | 40. | Putnam County |
| 9. | Chenango County | 41. | Queens County |
| 10. | Clinton County | 42. | Rensselaer County |
| 11. | Columbia County | 43. | Richmond County (Staten Island) |
| 12. | Cortland County | 44. | Rockland County |
| 13. | Delaware County | 45. | Saint Lawrence County |
| 14. | Dutchess County | 46. | Saratoga County |
| 15. | Erie County | 47. | Schenectady County |
| 16. | Essex County | 48. | Schoharie County |
| 17. | Franklin County | 49. | Schuyler County |
| 18. | Fulton County | 50. | Seneca County |
| 19. | Genesee County | 51. | Steuben County |
| 20. | Greene County | 52. | Suffolk County |
| 21. | Hamilton County | 53. | Sullivan County |
| 22. | Herkimer County | 54. | Tioga County |
| 23. | Jefferson County | 55. | Tompkins County |
| 24. | Kings County (Brooklyn) | 56. | Ulster County |
| 25. | Lewis County | 57. | Warren County |
| 26. | Livingston County | 58. | Washington County |
| 27. | Madison County | 59. | Wayne County |
| 28. | Monroe County | 60. | Westchester County |
| 29. | Montgomery County | 61. | Wyoming County |
| 30. | Nassau County | 62. | Yates County |
| 31. | New York County (Manhattan) | | |
| 32. | Niagara County | | |

Job Classification Checklist

(Place a checkmark by all classifications that will be using the 4/10 schedule)

**** Do not write in any additional Classifications or Counties****

| Job Classification | Tag # | Entire Counties | Partial Counties | Check Box |
|--------------------------------------|--------------|--|-------------------------|------------------|
| Carpenter – Building | 276B-All | 7 | 2 ,5 | |
| Carpenter – Building | 276B-Cat | 15 | 5 | |
| Carpenter – Building | 276-B-LIV | 26, 28, 35, 59 | 61 | |
| Carpenter – Building | 276B-Gen | 19, 32, 37 | 61 | |
| Carpenter – Heavy & Highway | 276HH-All | 2, 5, 7 | | |
| Carpenter – Heavy & Highway | 276HH-Erie | 15 | | |
| Carpenter – Heavy & Highway | 276HH- Gen | 19, 32, 37, 61 | | |
| Carpenter – Heavy & Highway | 276HH-Liv | 26, 28, 35, 59 | | |
| Carpenter – Residential | 276R-All | 7 | 2, 5 | |
| Carpenter – Building | 277B-Bro | 4, 54 | | |
| Carpenter – Building | 277B-CAY | 6, 50, 62 | | |
| Carpenter – Building | 277B-CS | 8, 12, 49, 51, 55 | 2 | |
| Carpenter – Building | 277 JLS | 23, 25, 45 | | |
| Carpenter – Building | 277 omh | 22, 27, 33 | | |
| Carpenter – Building | 277 On | 34 | | |
| Carpenter – Building | 277 Os | 38 | | |
| Carpenter – Building | 277CDO Bldg | 9, 13, 39 | | |
| Carpenter – Heavy & Highway | 277CDO HH | 9, 13, 39 | | |
| Carpenter – Heavy & Highway | 277HH-BRO | 4, 6, 8, 12, ,22, 23, 25, 27, 33, 34, 38, 45, 49, 50, 51, 54, 55, 62 | | |
| Carpenter – Building | 291B-Alb | 1, 18, 20, 29, 42, 47, 48 | | |
| Carpenter – Building | 291B-Cli | 10, 16, 17 | | |
| Carpenter – Building | 291B-Ham | 21, 57, 58 | | |
| Carpenter – Building | 291B-Sar | 46 | | |
| Carpenter – Heavy & Highway | 291HH-Alb | 1, 10, 16, 17,18, 20, 21, 29, 42, 46, 47, 48, 57, 58 | | |
| Electrician | 25m | 30, 52 | | |
| Electrician – Teledata Cable Splicer | 43 | 12, 22, 27, 33, 38 | 6, 9, 34, 39, 55, 59 | |

Job Classification Checklist

(Place a checkmark by all classifications that will be using the 4/10 schedule)

*** Do not write in any additional Classifications or Counties***

| Job Classification | Tag # | Entire Counties | Partial Counties | Check Box |
|--------------------------|-------------------------|--|--------------------|-----------|
| Electrician | 86 | 26, 28 | 19, 35, 37, 59, 61 | |
| Electrician | 840 Teledata and 840 Z1 | 62 | 6, 34, 35, 50, 59 | |
| Electrician | 910 | 10, 16, 17, 23, 25, 45 | | |
| Electrical Lineman | 1049Line/Gas | 30, 41, 52 | | |
| Electrical Lineman | 1249a | 1, 2, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 25, 26, 27, 28, 29, 32, 33, 34, 35, 36, 37, 38, 39, 40, 42, 44, 46, 47, 48, 49, 50, 45, 51, 53, 54, 55, 56, 57, 58, 59, 61, 62 | | |
| Electrical Lineman | 1249a West | 60 | | |
| Electrical Lineman | 1249a-LT | 1, 2, 4, 5, 6, 7, 8, 9, 10, 12, 13, 15, 16, 17, 18, 19, 20, 21, 22, 23, 25, 26, 27, 28, 29, 32, 33, 34, 35, 37, 38, 39, 42, 46, 47, 48, 49, 50, 45, 51, 53, 54, 55, 57, 58, 59, 61, 62 | | |
| Electrical Lineman | 1249aREG8LT | 11, 14, 36, 40, 44, 56 | | |
| Electrical Lineman | 1249aWestLT | 60 | | |
| Elevator Constructor | 138 | 11, 14, 20, 36, 40, 53, 56 | 13, 44, 60 | |
| Elevator Constructor | 14 | 2, 5, 7, 15, 19, 32, 37, 61 | | |
| Elevator Constructor | 27 | 8, 26, 28, 35, 49, 50, 51, 59, 62 | | |
| Elevator Constructor | 35 | 1, 10, 16, 18, 21, 22, 29, 39, 42, 46, 47, 48, 57, 58 | | |
| Elevator Constructor | 62.1 | 4, 6, 9, 12, 23, 25, 27, 33, 34, 38, 45, 54, 55 | 13 | |
| Glazier | 201 | 1, 10, 11, 16, 17, 18, 20, 21, 29, 42, 46, 47, 48, 57, 58 | | |
| Glazier | 660r | 2, 5, 7, 15, 19, 32, 37, 61 | | |
| Glazier | 660 | 2, 5, 7, 15, 19, 32, 37, 61 | | |
| Glazier | 677.1 | 23, 25, 26, 28, 35, 45, 50, 59, 62 | | |
| Glazier | 677Z-2 | 6, 12, 22, 27, 33, 34, 38 | | |
| Glazier | 677z3 | 4, 8, 9, 13, 39, 49, 51, 54, 55 | | |
| Glazier | 677r.2 | 6, 12, 22, 27, 33, 34, 38 | | |
| Insulator – Heat & Frost | 30-Syracuse | 4, 6, 8, 9, 12, 22, 23, 25, 27, 33, 34, 38, 39, 49, 50, 45, 54, 55 | | |
| Laborer – Building | 621b | 2, 7 | 5 | |
| Laborer – Building | 633 bON | 34 | | |

Job Classification Checklist

(Place a checkmark by all classifications that will be using the 4/10 schedule)

*** Do not write in any additional Classifications or Counties***

| Job Classification | Tag # | Entire Counties | Partial Counties | Check Box |
|--------------------------------|------------|---|------------------|-----------|
| Laborer – Building | 633b Cay | 6 | | |
| Laborer – Building | 633bOS | 38 | | |
| Laborer – Building | 785(7) | 4 | 9, 13, 54 | |
| Laborer – Building | 785B-CS | 8, 51 | 49 | |
| Laborer – Building | 7-785b | 12, 55 | 49, 54 | |
| Laborers – Heavy & Highway | 157h/h | 47 | 18, 29, 46 | |
| Laborers – Heavy & Highway | 190 h/h | 1, 42, 58 | 11, 20, 46 | |
| Laborers – Heavy & Highway | 35/2h | 21, 22, 27, 33 | 18, 29 | |
| Laborer – Residential | 621r | 2, 7 | 5 | |
| Laborers – Tunnel | 157 | 47 | 18, 29, 46 | |
| Laborers – Tunnel | 35T | 21, 22, 27, 33 | 18, 29 | |
| Laborers – Tunnel | 190 | 1, 42, 58 | 11, 20, 46 | |
| Mason – Building | 2TS.1 | 1, 10, 11, 16, 17, 18, 20, 21, 29, 42, 46, 47, 48, 57, 58 | | |
| Mason – Building | 2TS.2 | 22, 23, 25, 33, 45 | 27 | |
| Mason – Building | 2TS.3 | 6, 34, 38 | 27 | |
| Mason – Building | 2b-on | 34 | | |
| Mason – Building | 2b.1 | 1, 11, 18, 20, 21, 29, 42, 46, 47, 48, 58 | 57 | |
| Mason – Building | 2b.2 | 22, 33 | 25 | |
| Mason – Building | 2b.3 | 6, 34 | 27 | |
| Mason – Building | 2b.4 | 38 | | |
| Mason – Building | 2b.5 | 23 | 25 | |
| Mason – Building | 2b.6 | 45 | | |
| Mason – Building | 2b.8 | 10, 16, 17 | 57 | |
| Mason – Building | 3b-Co-Z2 | 8, 49, 51 | 2 | |
| Mason – Building | 3B-Z1 | 19, 26, 28, 35, 50, 59, 61, 62 | | |
| Mason – Building – Residential | 3B-Z1R | 19, 26, 28, 35, 50, 59, 61, 62 | | |
| Mason – Building | 3B-Bing-Z2 | 4, 9, 13, 39, 54 | | |
| Mason – Building | 3B-lth-Z2 | 12, 55 | | |

Job Classification Checklist

(Place a checkmark by all classifications that will be using the 4/10 schedule)

*** Do not write in any additional Classifications or Counties***

| Job Classification | Tag # | Entire Counties | Partial Counties | Check Box |
|--------------------------------------|----------------|--|------------------|-----------|
| Mason – Building | 3B-Jam-Z2 | 7 | 2, 5 | |
| Mason – Building – Residential | 3B-Jam-Z2R | 2, 4, 8, 7, 9, 12, 39, 13, 49, 51, 54, 55 | 5 | |
| Mason – Building | 3B-Z3 | 15, 32 | 5 | |
| Mason – Building | 3B-Z3.Orleans | 37 | | |
| Mason – Residential | 3B-Z3R | 15, 32 | 5 | |
| Mason – Residential | 3B-z3R.Orleans | 37 | | |
| Mason - Heavy & Highway | 3h | 2, 4, 8, 7, 9, 12, 13, 19, 26, 28, 35, 37, 39, 49, 50, 51, 54, 55, 59, 61, 62 | 5, 15, 32 | |
| Mason – Tile Finisher | 3TF-Z1 | 19, 26, 28, 35, 50, 59, 61, 62 | | |
| Mason – Tile Finisher | 3TF-Z2 | 2, 4, 8, 7, 9, 12, 13, 39, 49, 51, 54, 55 | 5 | |
| Mason – Tile Finisher | 3TF-Z3 | 15, 32, 37 | 5 | |
| Mason – Tile Finisher | 3TF-Z1R | 19, 26, 28, 35, 50, 59, 61, 62 | | |
| Mason – Tile Finisher | 3TF-Z2R | 2, 4, 7, 9, 12, 13, 39, 49, 51, 54, 55 | 5 | |
| Mason – Tile Finisher | 3TF-Z3R | 15, 32, 37 | 5 | |
| Mason – Tile Setter | 3TS-Z1 | 19, 26, 28, 35, 50, 59, 61, 62 | | |
| Mason – Tile Setter Residential | 3TS-Z1R | 19, 26, 28, 35, 50, 59, 61, 62 | | |
| Mason – Tile Setter | 3TS-Z2 | 2, 4, 7, 8, 9, 12, 13, 39, 49, 51, 54, 55 | 5 | |
| Mason – Tile Setter Residential | 3TS-Z2R | 2, 4, 7, 8, 9, 12, 13, 39, 49, 51, 54, 55 | 5 | |
| Mason – Tile Setter | 3TS-Z3 | 15, 32, 37 | 5 | |
| Mason – Tile Setter Residential | 3TS-Z3R | 15, 32, 37 | 5 | |
| Mason – Building/Heavy & Highway | 780 | 3, 24, 30, 31, 41, 43, 52 | | |
| Operating Engineer - Heavy & Highway | 137H/H | 40, 60 | 14 | |
| Operating Engineer – Heavy & Highway | 158-832H | 2, 8, 26, 28, 35, 49, 51, 59, 62 | 19 | |
| Operating Engineer – Heavy & Highway | 158-H/H | 1, 4, 9, 10, 11, 14, 16, 17, 18, 20, 21, 22, 29, 39, 42, 46, 47, 48, 54, 57, 58 | | |
| Operating Engineer – Heavy & Highway | 158-545h | 6, 12, 23, 25, 27, 33, 38, 45, 50, 55 | | |
| Painter | 1456-LS | 1, 3, 10, 11, 14, 16, 17, 18, 20, 21, 24, 29, 30, 31, 36, 40, 41, 42, 43, 44, 46, 47, 48, 52, 53, 56, 57, 58, 60 | | |
| Painter | 150 | 28, 59, 62 | 26, 35 | |

Job Classification Checklist

(Place a checkmark by all classifications that will be using the 4/10 schedule)

*** Do not write in any additional Classifications or Counties***

| Job Classification | Tag # | Entire Counties | Partial Counties | Check Box |
|--------------------------------------|---------------------|---------------------------------------|------------------|-----------|
| Painter | 178 B | 4, 9, 54 | | |
| Painter | 178 E | 8, 49 | 51 | |
| Painter | 178 I | 12, 55 | | |
| Painter | 178 O | 13, 39 | | |
| Painter | 31 | 6, 22, 27, 33, 34, 50 | 25, 35, 38 | |
| Painter | 38.O | | 38 | |
| Painter | 38.W | 23, 45 | 25 | |
| Painter | 4- Buf,Nia,Olean | 2, 15, 19, 32, 37, 61 | 5, 7, 26, 51 | |
| Painter | 4-Jamestown | | 5, 7 | |
| Sheetmetal Worker | 46 | 26, 28, 35, 50, 59, 62 | | |
| Sheetmetal Worker | 46r | 26, 28, 35, 50, 59, 62 | | |
| Teamsters – Heavy & Highway | 294h/h | 1, 11, 18, 20, 29, 42, 46, 47, 48, 58 | 57 | |
| Teamsters – Heavy & Highway | 317bhh | 6, 12, 50, 51, 55, 62 | 2 | |
| Teamsters - Building/Heavy & Highway | 456 | 40, 60 | | |

Introduction to the Prevailing Rate Schedule

Information About Prevailing Rate Schedule

This information is provided to assist you in the interpretation of particular requirements for each classification of worker contained in the attached Schedule of Prevailing Rates.

Classification

It is the duty of the Commissioner of Labor to make the proper classification of workers taking into account whether the work is heavy and highway, building, sewer and water, tunnel work, or residential, and to make a determination of wages and supplements to be paid or provided. It is the responsibility of the public work contractor to use the proper rate. If there is a question on the proper classification to be used, please call the district office located nearest the project. District office locations and phone numbers are listed below.

Prevailing Wage Schedules are issued separately for "General Construction Projects" and "Residential Construction Projects" on a county-by-county basis.

General Construction Rates apply to projects such as: Buildings, Heavy & Highway, and Tunnel and Water & Sewer rates.

Residential Construction Rates generally apply to construction, reconstruction, repair, alteration, or demolition of one family, two family, row housing, or rental type units intended for residential use.

Some rates listed in the Residential Construction Rate Schedule have a very limited applicability listed along with the rate. Rates for occupations or locations not shown on the residential schedule must be obtained from the General Construction Rate Schedule. Please contact the local Bureau of Public Work office before using Residential Rate Schedules, to ensure that the project meets the required criteria.

Payrolls and Payroll Records

Contractors and subcontractors are required to establish, maintain, and preserve for not less than six (6) years, contemporaneous, true, and accurate payroll records.

Every contractor and subcontractor shall submit to the Department of Jurisdiction (Contracting Agency), within thirty (30) days after issuance of its first payroll and every thirty (30) days thereafter, a transcript of the original payrolls, subscribed and affirmed as true under penalty of perjury.

Paid Holidays

Paid Holidays are days for which an eligible employee receives a regular day's pay, but is not required to perform work. If an employee works on a day listed as a paid holiday, this remuneration is in addition to payment of the required prevailing rate for the work actually performed.

Overtime

At a minimum, all work performed on a public work project in excess of eight hours in any one day or more than five days in any workweek is overtime. However, the specific overtime requirements for each trade or occupation on a public work project may differ. Specific overtime requirements for each trade or occupation are contained in the prevailing rate schedules.

Overtime holiday pay is the premium pay that is required for work performed on specified holidays. It is only required where the employee actually performs work on such holidays.

The applicable holidays are listed under HOLIDAYS: OVERTIME. The required rate of pay for these covered holidays can be found in the OVERTIME PAY section listings for each classification.

Supplemental Benefits

Particular attention should be given to the supplemental benefit requirements. Although in most cases the payment or provision of supplements is straight time for all hours worked, some classifications require the payment or provision of supplements, or a portion of the supplements, to be paid or provided at a premium rate for premium hours worked. Supplements may also be required to be paid or provided on paid holidays, regardless of whether the day is worked. The Overtime Codes and Notes listed on the particular wage classification will indicate these conditions as required.

Effective Dates

When you review the schedule for a particular occupation, your attention should be directed to the dates above the column of rates. These are the dates for which a given set of rates is effective. The rate listed is valid until the next effective rate change or until the new annual determination which takes effect on July 1 of each year. All contractors and subcontractors are required to pay the current prevailing rates of wages and supplements. If you have any questions please contact the Bureau of Public Work or visit the New York State Department of Labor website (www.labor.state.ny.us) for current wage rate information.

Apprentice Training Ratios

The following are the allowable ratios of registered Apprentices to Journey-workers.

For example, the ratio 1:1,1:3 indicates the allowable initial ratio is one Apprentice to one Journeyworker. The Journeyworker must be in place on the project before an Apprentice is allowed. Then three additional Journeyworkers are needed before a second Apprentice is allowed. The last ratio repeats indefinitely. Therefore, three more Journeyworkers must be present before a third Apprentice can be hired, and so on.

Please call Apprentice Training Central Office at (518) 457-6820 if you have any questions.

| Title (Trade) | Ratio |
|--|---------|
| Boilermaker (Construction) | 1:1,1:4 |
| Boilermaker (Shop) | 1:1,1:3 |
| Carpenter (Bldg.,H&H, Pile Driver/Dockbuilder) | 1:1,1:4 |
| Carpenter (Residential) | 1:1,1:3 |
| Electrical (Outside) Lineman | 1:1,1:2 |
| Electrician (Inside) | 1:1,1:3 |
| Elevator/Escalator Construction & Modernizer | 1:1,1:2 |
| Glazier | 1:1,1:3 |
| Insulation & Asbestos Worker | 1:1,1:3 |
| Iron Worker | 1:1,1:4 |
| Laborer | 1:1,1:3 |
| Mason | 1:1,1:4 |
| Millwright | 1:1,1:4 |
| Op Engineer | 1:1,1:5 |
| Painter | 1:1,1:3 |
| Plumber & Steamfitter | 1:1,1:3 |
| Roofer | 1:1,1:2 |
| Sheet Metal Worker | 1:1,1:3 |
| Sprinkler Fitter | 1:1,1:2 |

If you have any questions concerning the attached schedule or would like additional information, please contact the nearest BUREAU of PUBLIC WORK District Office or write to:

New York State Department of Labor
Bureau of Public Work
State Office Campus, Bldg. 12
Albany, NY 12240

| District Office Locations: | Telephone # | FAX # |
|--|--------------|--------------|
| Bureau of Public Work - Albany | 518-457-2744 | 518-485-0240 |
| Bureau of Public Work - Binghamton | 607-721-8005 | 607-721-8004 |
| Bureau of Public Work - Buffalo | 716-847-7159 | 716-847-7650 |
| Bureau of Public Work - Garden City | 516-228-3915 | 516-794-3518 |
| Bureau of Public Work - Newburgh | 845-568-5287 | 845-568-5332 |
| Bureau of Public Work - New York City | 212-932-2419 | 212-775-3579 |
| Bureau of Public Work - Patchogue | 631-687-4882 | 631-687-4902 |
| Bureau of Public Work - Rochester | 585-258-4505 | 585-258-4708 |
| Bureau of Public Work - Syracuse | 315-428-4056 | 315-428-4671 |
| Bureau of Public Work - Utica | 315-793-2314 | 315-793-2514 |
| Bureau of Public Work - White Plains | 914-997-9507 | 914-997-9523 |
| Bureau of Public Work - Central Office | 518-457-5589 | 518-485-1870 |

Cattaraugus County General Construction

Boilermaker

08/01/2018

JOB DESCRIPTION Boilermaker

DISTRICT 12

ENTIRE COUNTIES

Allegany, Cattaraugus, Chautauqua, Chemung, Erie, Genesee, Livingston, Monroe, Niagara, Ontario, Orleans, Schuyler, Steuben, Wayne, Wyoming, Yates

WAGES

Per hours: 07/01/2018

Boilermaker \$ 33.00

The wage rate will be 90% of the above for Maintenance work on boilers less than 100,000 pph.

Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day.

NOTE - In order to use the '4 Day/10 Hour Work schedule', as your normal schedule, you must submit an 'Employer Registration for Use of 4 Day/10 Hour Work Schedule,' form PW30.1; and there must be a dispensation of hours in place on the project. If the PW30.1 is not submitted you may be liable for overtime payments for work over 8 hours per day.

SUPPLEMENTAL BENEFITS

Per hour: \$ 28.49*

*NOTE: \$27.25 of this amount is for every Hour "Paid"

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

1st Term 12 Months, Terms 3-8 at 6 Months

Per Hour:

1st \$ 22.45
3rd \$ 24.10
4th \$ 25.75
5th \$ 27.40
6th \$ 29.05
7th \$ 29.70
8th \$ 31.35

Supplemental Benefits per hour:

1st to 6th \$ 27.49**
7th to 8th \$28.49***

**NOTE: \$26.25 of this amount is for every Hour "Paid"

***NOTE: \$27.25 of this amount is for every Hour "Paid"

12-7

Carpenter - Building

08/01/2018

JOB DESCRIPTION Carpenter - Building

DISTRICT 12

ENTIRE COUNTIES

Chautauqua

PARTIAL COUNTIES

Allegany: Entire county except the Township of Alfred.
Cattaraugus: Entire county except the Township of Perrysburg and the Village of Gowanda.

WAGES

Per hour: 07/01/2018

Carpenter \$ 26.60

| | |
|------------------------|-------|
| Floorlayer | 26.60 |
| Certified Welder | 27.60 |
| Hazardous Waste Worker | 28.10 |
| Diver-Dry Day | 27.60 |
| Dive Tender | 27.60 |
| Diver-Wet Day** | 61.25 |

Hazardous Waste Worker: Hazardous sites requiring personal protective equipment.

** Diver rate applies to all hours worked on the day of dive.

| | | |
|-----------------------|-----------------|----------------------------|
| Depth pay for divers: | 0' to 80' | no additional fee |
| | 81' to 100' | additional \$0.50 per foot |
| | 101' to 150' | additional \$0.75 per foot |
| | 151' and deeper | additional \$1.25 per foot |

| | | |
|------------------|-----------------|----------------------------|
| Penetration pay: | 0' to 50' | no additional fee |
| | 51' to 100' | additional \$0.75 per foot |
| | 101' and deeper | additional \$1.00 per foot |

Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day.

NOTE - In order to use the '4 Day/10 Hour Work Schedule,' as your normal schedule, you must submit an 'Employer Registration for Use of 4 Day/10 Hour Work Schedule,' form PW30.1; and there must be a dispensation of hours in place on the project. If the PW30.1 is not submitted you may be liable for overtime payments for work over 8 hours per day.

SUPPLEMENTAL BENEFITS

Per hour worked:

| | |
|--------------------|----------|
| Carpenter(s) | \$ 18.85 |
| Diver Wet | 18.85 |
| Diver Dry & Tender | 18.85 |

OVERTIME PAY

See (B, E, E2, Q) on OVERTIME PAGE

HOLIDAY

| | |
|-----------|----------------------------|
| Paid: | See (1) on HOLIDAY PAGE |
| Overtime: | See (5, 6) on HOLIDAY PAGE |

REGISTERED APPRENTICES

Wages per hour:

One year terms at the following percentage of Journeyman's base wage:

Indentured Prior to 1/1/2016

| | | | |
|-----|-----|-----|-----|
| 1st | 2nd | 3rd | 4th |
| 50% | 60% | 70% | 80% |

Indentured After 01/01/2016

| | | | | |
|-----|-----|-----|-----|-----|
| 1st | 2nd | 3rd | 4th | 5th |
| 50% | 60% | 65% | 70% | 80% |

Supplemental benefits per hour worked:

| | | | | |
|---------|---------|---------|---------|---------|
| 1st | 2nd | 3rd | 4th | 5th |
| \$11.24 | \$11.24 | \$13.84 | \$13.84 | \$13.84 |

12-276B-All

Carpenter - Building

08/01/2018

JOB DESCRIPTION Carpenter - Building

DISTRICT 12

ENTIRE COUNTIES

Erie

PARTIAL COUNTIES

Cattaraugus: Townships of Persia and Perrysburg

WAGES

Per hour: 07/01/2018

Building:

Carpenter \$ 32.15

| | |
|------------------------|-------|
| FloorLayer | 32.15 |
| Certified Welder | 33.15 |
| Hazardous Waste Worker | 33.65 |
| Diver-Dry Day | 33.15 |
| Diver Tender | 33.15 |
| Diver-Wet Day*** | 61.25 |

Hazardous Waste Worker: Hazardous sites requiring personal protective equipment.

*** Diver rate applies to all hours worked on the day of dive.

| | | |
|-----------------------|-----------------|----------------------------|
| Depth pay for divers: | 0' to 80' | no additional fee |
| | 81' to 100' | additional \$0.50 per foot |
| | 101' to 150' | additional \$0.75 per foot |
| | 151' and deeper | additional \$1.25 per foot |

| | | |
|------------------|-----------------|----------------------------|
| Penetration pay: | 0' to 50' | no additional fee |
| | 51' to 100' | additional \$0.75 per foot |
| | 101' and deeper | additional \$1.00 per foot |

Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day.

NOTE - In order to use the '4 Day/10 Hour Work schedule' as your normal schedule, you must submit an 'Employer Registration for Use of 4 Day/10 Hour Work Schedule,' form PW30.1; and there must be a dispensation of hours in place on the project. If the PW30.1 is not submitted you may be liable for overtime payments for work over 8 hours per day.

SUPPLEMENTAL BENEFITS

Per hour worked:

| | |
|--------------|----------|
| Carpenter(s) | \$ 27.88 |
| Diver(s) | 27.88 |

OVERTIME PAY

See (B, E, E2, Q) on OVERTIME PAGE

HOLIDAY

| | |
|-----------|----------------------------|
| Paid: | See (1) on HOLIDAY PAGE |
| Overtime: | See (5, 6) on HOLIDAY PAGE |

REGISTERED APPRENTICES

Wages per hour:

One year terms at the following percentage of Journeyman's base wage:

Indentured Prior to 01/01/2016

| | | | |
|-----|-----|-----|-----|
| 1st | 2nd | 3rd | 4th |
| 50% | 60% | 70% | 80% |

Indentured After 01/01/2016

| | | | | |
|-----|-----|-----|-----|-----|
| 1st | 2nd | 3rd | 4th | 5th |
| 50% | 60% | 65% | 70% | 80% |

Supplemental Benefits per hour worked:

| | | | | |
|---------|---------|---------|---------|---------|
| 1st | 2nd | 3rd | 4th | 5th |
| \$11.35 | \$11.35 | \$13.95 | \$13.95 | \$13.95 |

12-276B-Cat

Carpenter - Building / Heavy&Highway

08/01/2018

JOB DESCRIPTION Carpenter - Building / Heavy&Highway

DISTRICT 2

ENTIRE COUNTIES

Albany, Allegany, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Niagara, Oneida, Onondaga, Ontario, Orleans, Oswego, Otsego, Rensselaer, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Wyoming, Yates

PARTIAL COUNTIES

Orange: The area lying on Northern side of Orange County demarcated by a line drawn from the Bear Mountain Bridge continuing east to the Bear Mountain Circle, continue North on 9W to the town of Cornwall where County Road 107 (also known as Quaker Rd) crosses under 9W, then east on County Road 107 to Route 32, then north on Route 32 to Orrs Mills Rd, then west on Orrs Mills Rd to Route 94, continue west and south on Route 94 to the Town of Chester, to the intersection of Kings Highway, continue south on Kings Highway to Bellvale Rd, west on Bellvale Rd to Bellvale Lakes Rd, then south on Bellvale Lakes Rd to Kain Rd, southeast on Kain Rd to Route 17A, then north and southeast along Route 17A to Route 210, then follow Route 210 to NJ Border.

WAGES

Wages per hour: 07/01/2018

Carpenter - ONLY for
Artificial Turf/Synthetic
Sport Surface \$ 30.40

Note - Does not include the operation of equipment. Please see Operating Engineers rates.

SUPPLEMENTAL BENEFITS

Per hour:

Journeyman \$ 22.43

OVERTIME PAY

See (B, E, Q, X) on OVERTIME PAGE

HOLIDAY

Paid: See (2, 17) on HOLIDAY PAGE
Overtime: See (5, 6, 16) on HOLIDAY PAGE

Notes:

When a holiday falls upon a Saturday, it shall be observed on the preceding Friday. When a holiday falls upon a Sunday, it shall be observed on the following Monday.

An employee taking an unexcused day off the regularly scheduled day before or after a paid Holiday shall not receive Holiday pay.

REGISTERED APPRENTICES

Wages per hour:

One year terms at the following percentage of Journeyman's wage:

| 1st | 2nd | 3rd | 4th |
|-----|-----|-----|-----|
| 50% | 60% | 70% | 80% |

Supplemental Benefits per hour:

| | |
|---------------|----------|
| 1st year term | \$ 11.15 |
| 2nd year term | 11.15 |
| 3rd year term | 13.75 |
| 4th year term | 13.75 |

2-42AtSS

Carpenter - Heavy&Highway

08/01/2018

JOB DESCRIPTION Carpenter - Heavy&Highway

DISTRICT 12

ENTIRE COUNTIES

Allegany, Cattaraugus, Chautauqua

WAGES

Per hour: 07/01/2018

| | |
|---------------------------------|----------|
| Carpenter | \$ 30.40 |
| Certified Welder | 31.90 |
| Diver-Dry Day | 31.40 |
| Diver-Wet Day** | 55.40 |
| Dive Tender | 31.40 |
| Hazardous Waste Worker | 32.40 |
| Pile Driver | 34.89 |
| Millwright | 33.38 |
| Effluent & Slurry Diver-Wet Day | 47.10 |

Hazardous Waste Worker: Hazardous sites requiring personal protective equipment.

** Diver rate applies to all hours worked on the day of the dive.

| | | |
|-----------------------|--------------|----------------------------|
| Depth pay for divers: | 0' to 50' | no additional fee |
| | 51' to 100' | additional \$0.50 per foot |
| | 101' to 150' | additional \$0.75 per foot |
| | 151' to 200' | additional \$1.25 per foot |

| | | |
|------------------|----------------|----------------------------|
| Penetration pay: | 0' to 50' | no additional fee |
| | 51' to 100' | additional \$0.75 per foot |
| | 101' to deeper | additional \$1.00 per foot |

Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day.

NOTE - In order to use the '4 Day/10 Hour Work schedule', as your normal schedule, you must submit an 'Employer Registration for Use of 4 Day/10 Hour Work Schedule,' form PW30.1; and there must be a dispensation of hours in place on the project. If the PW30.1 is not submitted you may be liable for overtime payments for work over 8 hours per day.

SUPPLEMENTAL BENEFITS

Per hour worked:

| | |
|--------------------|----------|
| Carpenter(s) | \$ 22.43 |
| Diver Wet | 23.77 |
| Diver Dry & Tender | 23.77 |
| Pile Driver | 23.77 |

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

| | |
|-----------|-----------------------------|
| Paid: | See (2, 17) on HOLIDAY PAGE |
| Overtime: | See (5, 6) on HOLIDAY PAGE |

REGISTERED APPRENTICES

Wages per hour:

One year terms at the following percentage of Journeyman's wage:

Indentured Prior to 01/01/2016

| | | | |
|-----|-----|-----|-----|
| 1st | 2nd | 3rd | 4th |
| 50% | 60% | 70% | 80% |

Indentured After 01/01/2016

| | | | | |
|-----|-----|-----|-----|-----|
| 1st | 2nd | 3rd | 4th | 5th |
| 50% | 60% | 65% | 70% | 80% |

Supplemental benefits per hour worked:

| | | | | |
|---------|---------|---------|---------|---------|
| 1st | 2nd | 3rd | 4th | 5th |
| \$11.15 | \$11.15 | \$13.75 | \$13.75 | \$13.75 |

12-276HH-All

Electrician

08/01/2018

JOB DESCRIPTION Electrician

DISTRICT 3

ENTIRE COUNTIES

Erie

PARTIAL COUNTIES

Cattaraugus: Only the Townships of Ashford, East Otto, Ellicottville, Farmersville, Freedom, Franklinville, Lyndon, Machias, Mansfield, New Albion, Otto, Perrysburg, Persia and Yorkshire.

Genesee: Only the Townships of Alabama, Alexander, Darien, Oakfield, Pembroke and that portion of the Towns of Batavia and Elba that are west of Little Tonawanda Creek; Tonawanda Creek; the City limits of Batavia (in effect prior to Feb. 1, 1970) and State Highway 98 north of the City of Batavia, then north on Highway 98 to the Orleans County line.

Wyoming: Only the Townships of Arcade, Attica, Bennington, Eagle, Java, Orangeville, Sheldon and Wethersfield.

WAGES

| | | | |
|--------------|------------|------------|------------|
| Per hour: | 07/01/2018 | 05/27/2019 | 06/01/2020 |
| | | Additional | Additional |
| Electrician* | \$ 35.24 | \$1.60 | \$1.80 |

* Includes teledata work

When shift work is mandated either in the job specification or by the contracting agency the following premiums apply:

17.3% for work from 4:30PM - 1:00AM

31.4% for work from 12:30AM - 9:00AM

Additional \$0.50/hr in shafts over 25 ft. deep and in underground tunnels over 75 ft. long.

Additional \$0.75/hr for work on toothpicks, structural steel, temporary platforms, swinging scaffolds, boatswain chairs, smoke stacks or water towers 30 ft above the floor or for work on rolling scaffolds and ladders over 50 ft.

Additional \$1.50/hr for Cable Splicers on such work as lead, and shielded cable and splices or terminations on cable 5KV and above.

Additional \$1.00/hr for Hot work (Atomic plants).

Additional \$2.00/hr for work on radio, TV, light towers and floating platforms or climbing ladders in excess of 100 ft. high.

SUPPLEMENTAL BENEFITS

Per hour:

\$ 26.90*

* NOTE - add 3% of the posted straight time or applicable premium wage rate.

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour:

Hour terms at the following wages:

0 to 1000 to 2000 to 3500 to 5000 to 6500 to 8000
\$ 13.05 \$ 14.10 \$ 15.85 \$ 19.40 \$ 24.65 \$ 28.20

Supplemental benefits per hour:

0 to 1000 to 5000 to 8000
\$ 12.31* \$ 21.95* \$ 26.90*

* NOTE - add 3% of the posted straight time or applicable premium wage rate.

3-41

Electrician

08/01/2018

JOB DESCRIPTION Electrician

DISTRICT 3

ENTIRE COUNTIES

Chautauqua

PARTIAL COUNTIES

Allegany: Only the Townships of Alma, Bolivar, Centerville, Clarksville, Cuba, Friendship, Genesee, New Hudson, Rushford, Wirt and that portion of the Townships of Amity, Angelica, Belfast, Caneadea and Scio that are west of the Genesee River.
Cattaraugus: Only the Townships of Allegany, Carrollton, Cold Spring, Conewango, Dayton, Great Valley, Hinsdale, Humphrey, Ischua, Leon, Little Valley, Napoli, Olean, Portville, Red House, Randolph, Salamanca and South Valley.

WAGES

Per hour: 07/01/2018

Electrician* \$ 35.55

* Includes teledata work.

When shift work is mandated either in the job specification or by the contracting agency the following premiums apply:

17.3% for work from 4:30PM - 1:00AM

31.4% for work from 12:30AM - 9:00AM

Additional 15% above wage for work 40" above floor, or in underground mines or tunnels or from suspension-type personnel lift equipment.

SUPPLEMENTAL BENEFITS

Per hour:

\$ 21.87*

NOTE - add 3% of the posted straight time or applicable premium wage rate.

* NOTE - \$10.47 of this amount is paid at straight time, the remaining balance of \$11.40 is paid at the same premium as the wages.

OVERTIME PAY

See (B, *E, Q) on OVERTIME PAGE

* Double-time for all work on Saturday in excess of 10 hours.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour:

Hour terms at the following percentage of Journeyman's wage:

| | | | | | | | | | |
|------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0 to | 1001 to | 2001 to | 2751 to | 3501 to | 4251 to | 5001 to | 5751 to | 6601 to | 7351 to |
| 1000 | 2000 | 2750 | 3500 | 4250 | 5000 | 5750 | 6600 | 7350 | 8200 |
| 40% | 45% | 55% | 60% | 65% | 70% | 75% | 80% | 85% | 90% |

Supplemental benefits per hour:

| | | | | | | | | | |
|------------|---------|----------|----------|----------|----------|----------|----------|----------|----------|
| 07/01/2018 | | | | | | | | | |
| \$ 8.08 | \$ 8.08 | \$14.54* | \$14.91* | \$17.88* | \$18.45* | \$19.02* | \$19.59* | \$20.16* | \$20.73* |

NOTE - add 3% of the posted straight time or applicable premium wage rate to all terms.

* Note - \$10.47 of this amount is paid at straight time, the remaining balance is paid at the same premium as the wages.

3-106

Elevator Constructor

08/01/2018

JOB DESCRIPTION Elevator Constructor

DISTRICT 3

ENTIRE COUNTIES

Allegany, Cattaraugus, Chautauqua, Erie, Genesee, Niagara, Orleans, Wyoming

WAGES

| | |
|----------------------|------------|
| Per hour: | 07/01/2018 |
| Elevator Constructor | \$ 48.26 |
| Helper | 33.78 |

**** IMPORTANT NOTICE - EFFECTIVE 04/01/2009 ****

Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday or Tuesday thru Friday.

NOTE - In order to use the '4 Day/10 Hour Work schedule', as your normal schedule, you must submit an 'Employer Registration for Use of 4 Day/10 Hour Work Schedule,' form PW30.1; and there must be a dispensation of hours in place on the project. If the PW30.1 is not submitted you may be liable for overtime payments for work over 8 hours per day.

SUPPLEMENTAL BENEFITS

| | |
|-----------|----------|
| Per hour: | \$ 32.65 |
|-----------|----------|

Note - add 6% of regular hourly rate for all hours worked.

OVERTIME PAY

See (D, O) on OVERTIME PAGE

HOLIDAY

| | |
|-----------|------------------------------------|
| Paid: | See (5, 6, 15, 16) on HOLIDAY PAGE |
| Overtime: | See (5, 6, 15, 16) on HOLIDAY PAGE |

REGISTERED APPRENTICES

Wages per hour:

One year (1,700 hour each) terms at the following percentage of Journeyman's wage:

| | | | |
|------|-----|-----|-----|
| 1st* | 2nd | 3rd | 4th |
| 55% | 65% | 70% | 80% |

Supplemental benefits per hour:

\$ 32.65

* Note - 0-6 months of the 1st year term is paid at 50% of Journeyman's wage with no Supplemental benefits.

Note - add 6% of regular hourly rate for all hours worked.

3-14

Glazier

08/01/2018

JOB DESCRIPTION Glazier

DISTRICT 3

ENTIRE COUNTIES

Allegany, Cattaraugus, Chautauqua, Erie, Genesee, Niagara, Orleans, Wyoming

WAGES

| | | | |
|------------------------|------------|------------|------------|
| Per hour: | 07/01/2018 | 05/01/2019 | 05/01/2020 |
| | | Additional | Additional |
| Glazier | \$ 26.75 | \$1.25 | \$1.25 |
| Working off Suspended | | | |
| Scaffold (Swing Stage) | 27.75 | 1.25 | 1.25 |
| Maintenance | 16.74* | 0.85 | 0.90 |

* Note - This rate to be used only for all repair and replacement work such as glass breakage, glass replacement, door repair and board ups.

**** IMPORTANT NOTICE ****

Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day.

NOTE - In order to use the '4 Day/10 Hour Work schedule', as your normal schedule, you must submit an 'Employer Registration for Use of 4 Day/10 Hour Work Schedule,' form PW30.1; and there must be a dispensation of hours in place on the project. If the PW30.1 is not submitted you may be liable for overtime payments for work over 8 hours per day.

SUPPLEMENTAL BENEFITS

Per hour:

| | |
|--------------------|---------|
| Journeyman Glazier | \$21.67 |
| Maintenance | 13.60 |

OVERTIME PAY

See (B, E2, F, R) on OVERTIME PAGE

HOLIDAY

| | |
|-----------|--|
| Paid: | See (1) on HOLIDAY PAGE for Glazier and Glazier Apprentices. |
| Paid: | See (5, 6) on HOLIDAY PAGE for Maintenance |
| Overtime: | See (5, 6) on HOLIDAY PAGE. |

REGISTERED APPRENTICES

Wages per hour:

Glazier: 1000 hour terms at the following percentage of Journeyman's wage:

| | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|
| 1st | 2nd | 3rd | 4th | 5th | 6th | 7th | 8th |
| 50% | 55% | 60% | 65% | 70% | 75% | 80% | 90% |

Supplemental benefits per hour:

| | |
|-----------------|---------|
| 1st & 2nd terms | \$ 7.95 |
| 3rd & 4th terms | 8.80 |
| All other terms | 10.20 |

3-660

Insulator - Heat & Frost

08/01/2018

JOB DESCRIPTION Insulator - Heat & Frost

DISTRICT 3

ENTIRE COUNTIES

Allegany, Cattaraugus, Chautauqua, Erie, Niagara, Wyoming

PARTIAL COUNTIES

Genesee: Only the Townships of Alabama, Alexander, Darien, Oakfield and Pembroke.

WAGES

| | |
|------------------------|------------|
| Per Hour: | 07/01/2018 |
| Heat & Frost Insulator | \$ 33.25 |

SUPPLEMENTAL BENEFITS

| | |
|-----------|----------|
| Per hour: | \$ 23.09 |
|-----------|----------|

OVERTIME PAY

See (B, *E, **Q) on OVERTIME PAGE

* Note - Double time after 10 hours on Saturday.

** Note - Triple time on Labor Day if WORKED.

HOLIDAY

| | |
|-----------|----------------------------|
| Paid: | See (1) on HOLIDAY PAGE |
| Overtime: | See (5, 6) on HOLIDAY PAGE |

REGISTERED APPRENTICES

Wages per hour:

One year terms at the following percentage of Journeyman's wage:

| | | | |
|-----|-----|-----|-----|
| 1st | 2nd | 3rd | 4th |
| 50% | 60% | 70% | 80% |

Supplemental Benefits per hour:

| | |
|-----------------|----------|
| 1st and 2nd | \$ 18.69 |
| All other terms | \$ 23.09 |

3-4

Ironworker**08/01/2018****JOB DESCRIPTION** Ironworker**DISTRICT 3****ENTIRE COUNTIES**

Cattaraugus, Chautauqua

PARTIAL COUNTIES

Allegany: Entire county except the Towns of Birdsall, Burns and Grove.

Erie: All except the Town of Grand Island north of Whitehaven Road.

Genesee: Only the Townships of Alabama, Alexander, Darien and Pembroke

Steuben: Only the Townships of Canisteo, Freemont, Greenwood, Hartsville, Hornell, Hornellsville, Howard, Jasper, Troupsburg and West Union

Wyoming: Only the Townships of Arcade, Attica, Bennington, Eagle, Gainsville, Java, Orangeville, Pike, Sheldon, Warsaw and Wethersfield.

WAGES

| Per hour: | 07/01/2018 | 07/01/2019 Additional | 07/01/2020 Additional |
|------------------------|------------|--------------------------|--------------------------|
| Structural | \$ 30.58 | \$ 1.25 | \$ 1.25 |
| Ornamental | 30.58 | 1.25 | 1.25 |
| Layout | 30.58 | 1.25 | 1.25 |
| Rodmen | 30.58 | 1.25 | 1.25 |
| Reinforcing | 30.58 | 1.25 | 1.25 |
| Welders | 30.58 | 1.25 | 1.25 |
| Riggers & Mach. Movers | 30.58 | 1.25 | 1.25 |
| Curtain Wall Erector | 30.58 | 1.25 | 1.25 |
| Window Erector | 28.23 | 1.25 | 1.25 |
| Fence Erector | 29.15 | 1.25 | 1.25 |

SUPPLEMENTAL BENEFITS

Per hour:

| | |
|----------------|----------|
| Fence erectors | \$ 26.42 |
| All others | 27.92 |

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour:

One year terms at the following wage:

| 1st | 2nd | 3rd | 4th |
|----------|----------|----------|----------|
| \$ 16.50 | \$ 18.50 | \$ 20.50 | \$ 22.50 |

Supplemental benefits per hour:

| 1st | 2nd | 3rd | 4th |
|----------|----------|----------|----------|
| \$ 11.75 | \$ 21.12 | \$ 22.45 | \$ 23.79 |

3-6

Laborer - Building**08/01/2018****JOB DESCRIPTION** Laborer - Building**DISTRICT 3****ENTIRE COUNTIES**

Allegany, Chautauqua

PARTIAL COUNTIES

Cattaraugus: Entire county except the Town of Perrysburg and the Village of Gowanda.

WAGES

| Per hour: | 07/01/2018 | 07/01/2019 Additional | 07/01/2020 Additional |
|-----------------------------|------------|--------------------------|--------------------------|
| Basic and Flagman | \$ 23.97 | \$ 1.00 | \$ 1.00 |
| Blaster, Nozzelman, Curb | 24.97 | 1.00 | 1.00 |
| and Flatwork Formsetter not | 24.97 | 1.00 | 1.00 |
| on structures, Pipelayer | 24.97 | 1.00 | 1.00 |
| Work 40 ft. and up | 24.12 | 1.00 | 1.00 |
| Hazardous Waste | 25.47 | 1.00 | 1.00 |
| Deleader & Asbestos Removal | 25.97 | 1.00 | 1.00 |

| | | | |
|------------------------------|-------|------|------|
| OSHA Level C or | 25.97 | 1.00 | 1.00 |
| greater protective suit or | 25.97 | 1.00 | 1.00 |
| any anti-contamination | 25.97 | 1.00 | 1.00 |
| clothing is required | 25.97 | 1.00 | 1.00 |
| With supplied air respirator | 26.97 | 1.00 | 1.00 |

**** IMPORTANT NOTICE ****

Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day. Saturday may be used as a make-up day at time and one half of the hourly rate.

NOTE - In order to use the '4 Day/10 Hour Work schedule', as your normal schedule, you must submit an 'Employer Registration for Use of 4 Day/10 Hour Work Schedule,' form PW30.1; and there must be a dispensation of hours in place on the project. If the PW30.1 is not submitted you may be liable for overtime payments for work over 8 hours per day.

SUPPLEMENTAL BENEFITS

Per hour:

\$ 16.57

OVERTIME PAY

See (B, E, E2, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour:

1000 hour terms at the following percentage of Journeyman's wage:

| | | | |
|-----|-----|-----|-----|
| 1st | 2nd | 3rd | 4th |
| 70% | 80% | 85% | 90% |

Supplemental benefits per hour:

\$ 16.57

3-621b

Laborer - Building

08/01/2018

JOB DESCRIPTION Laborer - Building

DISTRICT 3

ENTIRE COUNTIES

Erie

PARTIAL COUNTIES

Cattaraugus: Only the Townships of Perrysburg and the Village Gowanda.

WAGES

CLASS A: Basic, Safety Man, Flagman, Tool Room Man, Nurseryman, Demolition Worker, Top Man, Wrecker, IBC Barriers Except on Structures, Guard Rail, Asphalt Shovelers, Foundation Laborer over 8' in Depth, Hod Carriers, Plaster Tender, Plaster Scaffold Builder, Pneumatic Gas, Electric Tool Operator including all forms of Busters, Jackhammers and Chipping Guns, Steel Burners.

CLASS B: Mortar Mixer, Asphalt Smoothers, Pneumatic Gas, Electric Tool Operator including all forms of Busters, Jackhammers and Chipping Guns over 8' in depth.

CLASS C: Worker on any Swing Scaffold, Blaster, Plumbing Laborer, Wagon Drill Operator, Bottomman (caisson or cofferdam), Laser Setter, Asphalt Rakers, Asphalt Screed Man.

CLASS D: Stone Cutter, Curb Setter and Flag Layer.

CLASS E: Wearing of replaceable cartridge respirator.

CLASS F: Asbestos Removal, Deleader.

CLASS G: Hazardous Waste Worker.

| | | | |
|-------------------|------------|------------|------------|
| Per hour: | 07/01/2018 | 07/01/2019 | 07/01/2020 |
| Building Laborer: | | Additional | Additional |
| CLASS A | \$ 26.83 | \$ 1.25 | \$ 1.75 |
| CLASS B | 27.00 | 1.25 | 1.75 |
| CLASS C | 27.11 | 1.25 | 1.75 |
| CLASS D | 27.58 | 1.25 | 1.75 |

| | | | |
|---------|-------|------|------|
| CLASS E | 27.83 | 1.25 | 1.75 |
| CLASS F | 28.33 | 1.25 | 1.75 |
| CLASS G | 28.83 | 1.25 | 1.75 |

SUPPLEMENTAL BENEFITS

Per hour:

\$ 25.70

OVERTIME PAY

See (B, E, E2, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (22) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour:

Hour terms at the following percentage of Journeyman's wage:

| | | | | | | |
|----------|---------|---------|---------|---------|---------|---------|
| 0 to 500 | to 1000 | to 1500 | to 2000 | to 2500 | to 3000 | to 4000 |
| 55% | 60% | 65% | 70% | 75% | 80% | 90% |

Supplemental benefits per hour:

\$ 25.70

3-210b

Laborer - Heavy&Highway

08/01/2018

JOB DESCRIPTION Laborer - Heavy&Highway

DISTRICT 3

ENTIRE COUNTIES

Allegany, Cattaraugus

PARTIAL COUNTIES

Chautauqua: Only the Townships of Busti, Carroll, Chautauqua, Clymer, Ellery, Ellicott, Ellington, French Creek, Gerry, Harmony, Kiantone, Mina, North Harmony, Poland, Sherman, Stockton and the City of Jamestown.

WAGES

GROUP A: Basic, Drill Helper, Flagman, Outboard and Hand Boats. Chain Saw, Concrete Aggregate Bin, Concrete Bootmen, Gin Buggy, Hand or Machine Vibrator, Jack Hammer, Mason Tender, Mortar Mixer, Pavement Breaker, Handlers of Steel Mesh, Small Generators for Laborers' Tools, Pipe Layers, Vibrator Type Rollers, Tamper, Drill Doctor, Water Pump Operator (2" and Single Diaphragm), Nozzle (Asphalt, Gunite, Seeding, and Sand Blasting), Laborers on Chain Link Fence Erection, Rock Splitter and Power Unit, Pusher Type Concrete Saw and all other Gas, Electric, Oil and Air Tool Operators, Wrecking Laborer, Grade Checker.

GROUP B: All Rock or Drilling Machine Operators (Except Quarry Master and Similar Type), Acetylene Torch Operators and Powderman. Blasters, Curb and Flatwork Formsetters not on structures, Stone or Granite Curb Setters, Designated Asphalt Rakers (not on cold patch), Tail or Screw Operator on Asphalt Paver.

Per hour: 07/01/2018

GROUP A \$ 27.39

GROUP B 27.79

Hazardous waste removal, lead abatement, asbestos abatement add \$ 1.50

SUPPLEMENTAL BENEFITS

Per hour:

\$ 21.10

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 6) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per:

1000 hour terms at the following percentage of Journeyman's wage:

| | | | |
|-----|-----|-----|-----|
| 1st | 2nd | 3rd | 4th |
| 70% | 80% | 85% | 90% |

Supplemental benefits per hour:

\$ 21.10

3-621h Zone 1

Lineman Electrician

08/01/2018

JOB DESCRIPTION Lineman Electrician

DISTRICT 6

ENTIRE COUNTIES

Albany, Allegany, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Dutchess, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Niagara, Oneida, Onondaga, Ontario, Orange, Orleans, Oswego, Otsego, Putnam, Rensselaer, Rockland, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Wyoming, Yates

WAGES

Per hour:

NOTE: Includes Teledata Work within ten (10) feet of High Voltage Transmission Lines

Below rates applicable on all overhead and underground distribution and maintenance work, and all overhead and underground transmission line work and the installation of fiber optic cable where no other construction trades are or have been involved. (Ref #14.01.01)

| | 07/01/2018 | 05/06/2019 | 05/04/2020 |
|-------------------------|------------|------------|------------|
| Lineman, Technician | \$ 50.60 | \$ 52.05 | \$ 53.50 |
| Crane, Crawler Backhoe | 50.60 | 52.05 | 53.50 |
| Welder, Cable Splicer | 50.60 | 52.05 | 53.50 |
| Digging Mach. Operator | 45.54 | 46.85 | 48.15 |
| Tractor Trailer Driver | 43.01 | 44.24 | 45.48 |
| Groundman, Truck Driver | 40.48 | 41.64 | 42.80 |
| Equipment Mechanic | 40.48 | 41.64 | 42.80 |
| Flagman | 30.36 | 31.23 | 32.10 |

Additional \$1.00 per hour for entire crew when a helicopter is used.

Below rates applicable on all electrical sub-stations, switching structures, fiber optic cable and all other work not defined as "Utility outside electrical work". (Ref #14.02.01-A)

| | | | |
|-------------------------|----------|----------|----------|
| Lineman, Technician | \$ 50.60 | \$ 52.05 | \$ 53.50 |
| Crane, Crawler Backhoe | 50.60 | 52.05 | 53.50 |
| Cable Splicer | 55.66 | 57.26 | 58.85 |
| Certified Welder - | | | |
| Pipe Type Cable | 53.13 | 54.65 | 56.18 |
| Digging Mach. Operator | 45.54 | 46.85 | 48.15 |
| Tractor Trailer Driver | 43.01 | 44.24 | 45.48 |
| Groundman, Truck Driver | 40.48 | 41.64 | 42.80 |
| Equipment Mechanic | 40.48 | 41.64 | 42.80 |
| Flagman | 30.36 | 31.23 | 32.10 |

Additional \$1.00 per hour for entire crew when a helicopter is used.

Below rates apply on switching structures, maintenance projects, railroad catenary install/maintenance third rail installation, bonding of rails and pipe type cable and installation of fiber optic cable. (Ref #14.02.01-B)

| | | | |
|-------------------------|----------|----------|----------|
| Lineman, Tech, Welder | \$ 51.92 | \$ 53.37 | \$ 54.82 |
| Crane, Crawler Backhoe | 51.92 | 53.37 | 54.82 |
| Cable Splicer | 57.11 | 58.71 | 60.30 |
| Certified Welder - | | | |
| Pipe Type Cable | 54.52 | 56.04 | 57.56 |
| Digging Mach. Operator | 46.73 | 48.03 | 49.34 |
| Tractor Trailer Driver | 44.13 | 45.36 | 46.60 |
| Groundman, Truck Driver | 41.54 | 42.70 | 43.86 |
| Equipment Mechanic | 41.54 | 42.70 | 43.86 |
| Flagman | 31.15 | 32.02 | 32.89 |

Additional \$1.00 per hour for entire crew when a helicopter is used.

Below rates applicable on all overhead and underground transmission line work & fiber optic cable where other construction trades are or have been involved. This applies to transmission line work only, not other construction. (Ref #14.03.01)

| | | | |
|-------------------------|----------|----------|----------|
| Lineman, Tech, Welder | \$ 53.11 | \$ 54.56 | \$ 56.01 |
| Crane, Crawler Backhoe | 53.11 | 54.56 | 56.01 |
| Cable Splicer | 53.11 | 54.56 | 56.01 |
| Digging Mach. Operator | 47.80 | 49.10 | 50.41 |
| Tractor Trailer Driver | 45.14 | 46.38 | 47.61 |
| Groundman, Truck Driver | 42.49 | 43.65 | 44.81 |
| Equipment Mechanic | 42.49 | 43.65 | 44.81 |
| Flagman | 31.87 | 32.74 | 33.61 |

Additional \$1.00 per hour for entire crew when a helicopter is used.

NOTE: THE FOLLOWING RATES WILL APPLY ON ALL CONTRACTING AGENCY MANDATED MULTIPLE SHIFTS OF AT LEAST FIVE (5) DAYS DURATION WORKED BETWEEN THE HOURS LISTED BELOW:

| | |
|-----------|--|
| 1ST SHIFT | 8:00 AM to 4:30 PM REGULAR RATE |
| 2ND SHIFT | 4:30 PM to 1:00 AM REGULAR RATE PLUS 17.3 % |
| 3RD SHIFT | 12:30 AM to 9:00 AM REGULAR RATE PLUS 31.4 % |

**** IMPORTANT NOTICE ****

Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day.
*Effective 05/06/2013, Tuesday thru Friday may be worked with no make-up day.

NOTE - In order to use the '4 Day/10 Hour Work schedule', as your normal schedule, you must submit an 'Employer Registration for Use of 4 Day/10 Hour Work Schedule,' form PW30.1; and there must be a dispensation of hours in place on the project. If the PW30.1 is not submitted you may be liable for overtime payments for work over 8 hours per day.

SUPPLEMENTAL BENEFITS

Per hour worked (also required on non-worked holidays):

The following SUPPLEMENTAL BENEFITS apply to all classification categories of CONSTRUCTION, TRANSMISSION and DISTRIBUTION.

| | | | |
|------------|---|---|---|
| Journeyman | \$ 23.40 *plus 6.75% of hourly wage | \$ 24.15 *plus 6.75% of hourly wage | \$ 24.90 *plus 6.75% of hourly wage |
|------------|---|---|---|

*The 6.75% is based on the hourly wage paid, straight time rate or premium rate.

OVERTIME PAY

See (B, E, Q,) on OVERTIME PAGE. *Note* Double time for all emergency work designated by the Dept. of Jurisdiction.
NOTE: WAGE CAP...Double the straight time hourly base wage shall be the maximum hourly wage compensation for any hour worked.
Contractor is still responsible to pay the hourly benefit amount for each hour worked.

HOLIDAY

Paid See (5, 6, 8, 13, 25) on HOLIDAY PAGE plus Governor of NYS Election Day.
Overtime See (5, 6, 8, 13, 25) on HOLIDAY PAGE plus Governor of NYS Election Day.

NOTE: All paid holidays falling on Saturday shall be observed on the preceding Friday. All paid holidays falling on Sunday shall be observed on the following Monday. Supplements for holidays paid at straight time.

REGISTERED APPRENTICES

WAGES: 1000 hour terms at the following percentage of the applicable Journeyman Lineman wage.

| | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|
| 1st | 2nd | 3rd | 4th | 5th | 6th | 7th |
| 60% | 65% | 70% | 75% | 80% | 85% | 90% |

SUPPLEMENTAL BENEFITS: Same as Journeyman

6-1249a

Lineman Electrician - Teledata

08/01/2018

JOB DESCRIPTION Lineman Electrician - Teledata
ENTIRE COUNTIES

DISTRICT 6

Albany, Allegany, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Dutchess, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Niagara, Oneida, Onondaga, Ontario, Orange, Orleans, Oswego, Otsego, Putnam, Rensselaer, Rockland, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Westchester, Wyoming, Yates

WAGES

Per hour:

For outside work, stopping at first point of attachment (demarcation).

| | 07/01/2018 | 01/01/2019 | 01/01/2020 | 01/01/2021 |
|------------------------|------------|------------|------------|------------|
| Cable Splicer | \$ 31.83 | \$ 32.78 | \$ 33.77 | \$ 34.78 |
| Installer, Repairman | 30.21 | \$ 31.12 | \$ 32.05 | \$ 33.01 |
| Teledata Lineman | 30.21 | \$ 31.12 | \$ 32.05 | \$ 33.01 |
| Tech., Equip. Operator | 30.21 | \$ 31.12 | \$ 32.05 | \$ 33.01 |
| Groundman | 16.01 | \$ 16.49 | \$ 16.99 | \$ 17.50 |

NOTE: EXCLUDES Teledata work within ten (10) feet of High Voltage (600 volts and over) transmission lines. For this work please see LINEMAN.

NOTE: THE FOLLOWING RATES WILL APPLY ON ALL CONTRACTING AGENCY MANDATED MULTIPLE SHIFTS OF AT LEAST FIVE (5) DAYS DURATION WORKED:

| | |
|-----------|-----------------------|
| 1ST SHIFT | REGULAR RATE |
| 2ND SHIFT | REGULAR RATE PLUS 10% |
| 3RD SHIFT | REGULAR RATE PLUS 15% |

SUPPLEMENTAL BENEFITS

Per hour:

| | | | | |
|------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Journeyman | \$ 4.73 | \$ 4.73 | \$ 4.73 | \$ 4.73 |
| | *plus 3% of wage paid | *plus 3% of wage paid | *plus 3% of wage paid | *plus 3% of wage paid |

*The 3% is based on the hourly wage paid, straight time rate or premium rate.

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

NOTE: WAGE CAP...Double the straight time hourly base wage shall be the maximum hourly wage compensation for any hour worked. Contractor is still responsible to pay the hourly benefit amount for each hour worked.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6, 16) on HOLIDAY PAGE

6-1249LT - Teledata

Lineman Electrician - Traffic Signal, Lighting

08/01/2018

JOB DESCRIPTION Lineman Electrician - Traffic Signal, Lighting

DISTRICT 6

ENTIRE COUNTIES

Albany, Allegany, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Cortland, Delaware, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Niagara, Oneida, Onondaga, Ontario, Orleans, Oswego, Otsego, Rensselaer, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Sullivan, Tioga, Tompkins, Warren, Washington, Wayne, Wyoming, Yates

WAGES

Lineman/Technician shall perform all overhead aerial work. A Lineman/Technician on the ground will install all electrical panels, connect all grounds, install and connect all electrical conductors which includes, but is not limited to road loop wires; conduit and plastic or other type pipes that carry conductors, flex cables and connectors, and to oversee the encasement or burial of such conduits or pipes.

A Groundman/Groundman Truck Driver shall: Build and set concrete forms, handle steel mesh, set footer cages, transport concrete in a wheelbarrow, hand or machine concrete vibrator, finish concrete footers, mix mortar, grout pole bases, cover and maintain footers while curing in cold weather, operate jack hammer, operate hand pavement breaker, tamper, concrete and other motorized saws, as a drill helper, operate and maintain generators, water pumps, chainsaws, sand blasting, operate mulching and seeding machine, air tools, electric tools, gas tools, load and unload materials, hand shovel and/or broom, prepare and pour mastic and other fillers, assist digger operator equipment operator in ground excavation and restoration, landscape work and painting. Only when assisting a lineman technician, a groundman/groundman truck driver may assist in installing conduit, pipe, cables and equipment.

A flagger's duties shall consist of traffic control only.
(Ref #14.01.01)

Per hour:

| | 07/01/2018 | 05/06/2019 | 05/04/2020 |
|-------------------------|------------|------------|------------|
| Lineman, Technician | \$ 43.80 | \$ 45.00 | \$ 46.20 |
| Crane, Crawler Backhoe | 43.80 | 45.00 | 46.20 |
| Certified Welder | 45.99 | 47.25 | 48.51 |
| Digging Machine | 39.42 | 40.50 | 41.58 |
| Tractor Trailer Driver | 37.23 | 38.25 | 39.27 |
| Groundman, Truck Driver | 35.04 | 36.00 | 36.96 |
| Equipment Mechanic | 35.04 | 36.00 | 36.96 |
| Flagman | 26.28 | 27.00 | 27.72 |

Above rates applicable on all Lighting and Traffic Signal Systems with the installation, testing, operation, maintenance and repair of all traffic control and illumination projects, traffic monitoring systems, road weather information systems and the installation of Fiber Optic Cable.

NOTE: THE FOLLOWING RATES WILL APPLY ON ALL CONTRACTING AGENCY MANDATED MULTIPLE SHIFTS OF AT LEAST FIVE (5) DAYS DURATION WORKED BETWEEN THE HOURS LISTED BELOW:

| | | |
|-----------|---------------------|-------------------------|
| 1ST SHIFT | 8:00 AM TO 4:30 PM | REGULAR RATE |
| 2ND SHIFT | 4:30 PM TO 1:00 AM | REGULAR RATE PLUS 17.3% |
| 3RD SHIFT | 12:30 AM TO 9:00 AM | REGULAR RATE PLUS 31.4% |

**** IMPORTANT NOTICE ****

Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day.

*Effective 05/06/2013, Tuesday thru Friday may be worked with no make-up day.

NOTE - In order to use the '4 Day/10 Hour Work schedule', as your normal schedule, you must submit an 'Employer Registration for Use of 4 Day/10 Hour Work Schedule,' form PW30.1; and there must be a dispensation of hours in place on the project. If the PW30.1 is not submitted you may be liable for overtime payments for work over 8 hours per day.

SUPPLEMENTAL BENEFITS

Per hour worked (but also required on non-worked holidays):

| | | | |
|------------|----------------------------|----------------------------|----------------------------|
| Journeyman | \$ 23.40 | \$ 24.15 | \$ 24.90 |
| | *plus 6.75% of hourly wage | *plus 6.75% of hourly wage | *plus 6.75% of hourly wage |

*The 6.75% is based on the hourly wage paid, straight time rate or premium rate.

Supplements paid at STRAIGHT TIME rate for holidays.

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE. *Note* Double time for all emergency work designated by the Dept. of Jurisdiction.

NOTE: WAGE CAP...Double the straight time hourly base wage shall be the maximum hourly wage compensation for any hour worked.

Contractor is still responsible to pay the hourly benefit amount for each hour worked.

HOLIDAY

Paid: See (5, 6, 8, 13, 25) on HOLIDAY PAGE plus Governor of NYS Election Day.

Overtime: See (5, 6, 8, 13, 25) on HOLIDAY PAGE plus Governor of NYS Election Day.

NOTE: All paid holidays falling on Saturday shall be observed on the preceding Friday. All paid holidays falling on Sunday shall be observed on the following Monday. Supplements for holidays paid at straight time.

REGISTERED APPRENTICES

WAGES: Per hour. 1000 hour terms.

| | 07/01/2018 | 05/06/2019 | 05/04/2020 |
|----------|------------|------------|------------|
| 1st term | \$ 26.28 | \$ 27.00 | \$ 27.72 |
| 2nd term | 28.47 | 29.25 | 30.03 |
| 3rd term | 30.66 | 31.50 | 32.34 |
| 4th term | 32.85 | 33.75 | 34.65 |
| 5th term | 35.04 | 36.00 | 36.96 |
| 6th term | 37.23 | 38.25 | 39.27 |
| 7th term | 39.42 | 40.50 | 41.58 |

SUPPLEMENTAL BENEFITS: Same as Journeyman

6-1249a-LT

Lineman Electrician - Tree Trimmer

08/01/2018

JOB DESCRIPTION Lineman Electrician - Tree Trimmer

DISTRICT 6

ENTIRE COUNTIES

Albany, Allegany, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Dutchess, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Niagara, Oneida, Onondaga, Ontario, Orange, Orleans, Oswego, Otsego, Putnam, Rensselaer, Rockland, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Wyoming, Yates

WAGES

Per hour:

Applies to line clearance, tree work and right-of-way preparation on all new or existing energized overhead or underground electrical, telephone and CATV lines. This also would include stump removal near underground energized electrical lines, including telephone and CATV lines.

| | 07/01/2018 | 01/01/2019 |
|--------------------|------------|------------|
| Tree Trimmer | \$ 25.10 | \$ 25.79 |
| Equipment Operator | 22.20 | 22.81 |
| Equipment Mechanic | 22.20 | 22.81 |
| Truck Driver | 18.48 | 18.99 |
| Groundman | 15.22 | 15.64 |
| Flag person | 10.97 | 11.27 |

SUPPLEMENTAL BENEFITS

Per hour worked (but also required on non-worked holidays):

| | | |
|------------|-------------------------|-------------------------|
| Journeyman | \$ 9.98 | \$ 9.98 |
| | *plus 3% of hourly wage | *plus 3% of hourly wage |

* The 3% is based on the hourly wage paid, straight time rate or premium rate.

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

NOTE: WAGE CAP...Double the straight time hourly base wage shall be the maximum hourly wage compensation for any hour worked. Contractor is still responsible to pay the hourly benefit amount for each hour worked.

HOLIDAY

Paid: See (5, 6, 8, 15, 16, 25) on HOLIDAY PAGE

Overtime: See (5, 6, 8, 15, 16, 25) on HOLIDAY PAGE

NOTE: All paid holidays falling on a Saturday shall be observed on the preceding Friday.

All paid holidays falling on a Sunday shall be observed on the following Monday.

6-1249TT

Mason - Building

08/01/2018

JOB DESCRIPTION Mason - Building

DISTRICT 5

ENTIRE COUNTIES

Chautauqua

PARTIAL COUNTIES

Allegany: Entire county except the Townships of Alfred, Almond, Andover and Burns.

Cattaraugus: Entire county except the Township of Perrysburg and the Village of Gowanda.

WAGES

| | | | |
|-------------------------|------------|------------|------------|
| Per hour: | 07/01/2018 | 07/01/2019 | 07/01/2020 |
| Building: | | Additional | Additional |
| Bricklayer Cement | \$ 31.67 | \$ 0.95 | \$ 1.00 |
| Mason, Plasterer, Stone | | | |
| Mason, Tuck Pointer | | | |

Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day.

NOTE - In order to use the '4 Day/10 Hour Work Schedule,' as your normal schedule, you must submit an 'Employer Registration for Use of 4 Day/10 Hour Work Schedule,' form PW30.1; and there must be a dispensation of hours in place on the project. If the PW30.1 is not submitted you may be liable for overtime payments for work over 8 hours per day.

SUPPLEMENTAL BENEFITS

Per hour:

| | |
|------------|----------|
| Journeyman | \$ 20.08 |
|------------|----------|

OVERTIME PAY

See (B,E,E2*,Q) on OVERTIME PAGE

*Note - Or other conditions beyond the employer's control such as fire or natural disaster.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour:

One year terms at the following percentage of Journeyman's wage:

| 1st | 2nd | 3rd | 4th |
|---------|---------|---------|---------|
| \$14.99 | \$18.89 | \$21.37 | \$24.42 |

Supplemental benefits per hour:

| 1st | 2nd | 3rd | 4th |
|---------|---------|---------|---------|
| \$10.79 | \$13.38 | \$15.47 | \$17.56 |

5-3B - Jam - Z2

Mason - Building

08/01/2018

JOB DESCRIPTION Mason - Building

DISTRICT 5

ENTIRE COUNTIES

Erie, Niagara

PARTIAL COUNTIES

Cattaraugus: Only the Township of Perrysburg and the Village of Gowanda.

WAGES

Per Hour: 07/01/2018
Building:
Bricklayer \$ 31.32
Stone Mason 31.32
Tuck Pointer 31.32

Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day.

NOTE - In order to use the '4 Day/10 Hour Work schedule', as your normal schedule, you must submit an 'Employer Registration for Use of 4 Day/10 Hour Work Schedule,' form PW30.1; and there must be a dispensation of hours in place on the project. If the PW30.1 is not submitted you may be liable for overtime payments for work over 8 hours per day.

SUPPLEMENTAL BENEFITS

Per hour:

Journeyman \$ 26.68

OVERTIME PAY

See (B,E,E2*,Q) on OVERTIME PAGE

*Note - Or other conditions beyond the employer's control such as fire or natural disaster.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour:

1250 hour terms at the following wage:

| 1st | 2nd | 3rd | 4th |
|----------|----------|----------|----------|
| \$ 18.41 | \$ 18.91 | \$ 21.82 | \$ 25.77 |

Supplemental benefits per hour:

| 1st | 2nd | 3rd | 4th |
|----------|----------|----------|----------|
| \$ 10.58 | \$ 17.33 | \$ 19.53 | \$ 21.32 |

5-3B-Z3

Mason - Building

08/01/2018

JOB DESCRIPTION Mason - Building

DISTRICT 3

ENTIRE COUNTIES

Erie, Niagara

PARTIAL COUNTIES

Cattaraugus: Only the Township of Perrysburg and the Village of Gowanda.

WAGES

| | | |
|-----------|------------|------------|
| Per hour: | 07/01/2018 | 04/01/2019 |
| Plasterer | \$ 29.65 | \$ 30.15 |

Additional \$3.00/hr for work on swing stage over 20 feet.

SUPPLEMENTAL BENEFITS

| | | |
|-----------|----------|----------|
| Per hour: | \$ 19.74 | \$ 20.49 |
|-----------|----------|----------|

OVERTIME PAY

Exterior work only See (B, E, E2, Q) on OVERTIME PAGE.

All other work See (B, E, Q) on OVERTIME PAGE.

HOLIDAY

| | |
|-----------|----------------------------|
| Paid: | See (1) on HOLIDAY PAGE |
| Overtime: | See (5, 6) on HOLIDAY PAGE |

REGISTERED APPRENTICES

Wages per hour:

Hour terms at the following dollar amounts:

| | | | | | | | | | |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|---------|
| 0 | to 1000 | to 2000 | to 3000 | to 4000 | to 4700 | to 5400 | to 6000 | to 7000 | to 8000 |
| \$ 12.00 | \$ 14.00 | \$ 15.00 | \$ 16.00 | \$ 17.00 | \$ 18.00 | \$ 19.00 | \$ 20.00 | \$ 21.00 | |

Supplemental benefits per hour:

Hour terms at the following dollar amounts:

| | | | | | |
|---------|---------|---------|---------|---------|---------|
| 0 | to 4000 | to 4700 | to 5400 | to 6000 | to 8000 |
| \$ 2.50 | \$ 3.50 | \$ 4.50 | \$ 5.50 | \$ 7.50 | |

3-9-Pltr

Mason - Building / Heavy&Highway

08/01/2018

JOB DESCRIPTION Mason - Building / Heavy&Highway

DISTRICT 3

ENTIRE COUNTIES

Erie

PARTIAL COUNTIES

Cattaraugus: Only the Township of Perrysburg and the Village of Gowanda.

WAGES

| | | | |
|--------------|------------|------------|------------|
| Per hour: | 07/01/2018 | 07/01/2019 | 07/01/2020 |
| | | Additional | Additional |
| Cement Mason | \$ 30.00 | \$ 1.00 | \$ 1.25 |

Additional \$0.25 per hr for Swing scaffold or exterior scaffold 42' or higher.

Additional \$1.00 per hr when required to wear respirator.

SUPPLEMENTAL BENEFITS

| | |
|-----------|----------|
| Per hour: | \$ 30.67 |
|-----------|----------|

OVERTIME PAY

See (B, E, Q, V) on OVERTIME PAGE

HOLIDAY

| | |
|-----------|----------------------------|
| Paid: | See (1) on HOLIDAY PAGE |
| Overtime: | See (5, 6) on HOLIDAY PAGE |

REGISTERED APPRENTICES

Wages per hour:

750 hour terms at the following dollar amounts:

| | | | | | |
|----------|----------|----------|----------|----------|----------|
| 1st | 2nd | 3rd | 4th | 5th | 6th |
| \$ 13.65 | \$ 14.65 | \$ 17.65 | \$ 19.65 | \$ 21.65 | \$ 23.65 |

Supplemental benefits per hour:

| | | | | | |
|-----|-----|-----|-----|-----|-----|
| 1st | 2nd | 3rd | 4th | 5th | 6th |
|-----|-----|-----|-----|-----|-----|

\$ 8.91 \$ 11.82 \$ 13.55 \$ 16.77 \$ 19.06 \$ 22.49

3-111Erie

Mason - Heavy&Highway

08/01/2018

JOB DESCRIPTION Mason - Heavy&Highway

DISTRICT 5

ENTIRE COUNTIES

Allegany, Broome, Cattaraugus, Chautauqua, Chemung, Chenango, Cortland, Delaware, Erie, Genesee, Livingston, Monroe, Niagara, Ontario, Orleans, Otsego, Schuyler, Seneca, Steuben, Tioga, Tompkins, Wayne, Wyoming, Yates

WAGES

| | | | |
|------------------|------------|------------|------------|
| Per hour: | 07/01/2018 | 07/01/2019 | 07/01/2020 |
| Heavy & Highway: | | Additional | Additional |
| Cement Mason | \$30.91 | \$ 0.95 | \$ 1.00 |
| Bricklayer | 30.91 | 0.95 | 0.95 |

Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day.

NOTE - In order to use the '4 Day/10 Hour Work schedule', as your normal schedule, you must submit an 'Employer Registration for Use of 4 Day/10 Hour Work Schedule,' form PW30.1; and there must be a dispensation of hours in place on the project. If the PW30.1 is not submitted you may be liable for overtime payments for work over 8 hours per day.

SUPPLEMENTAL BENEFITS

Per hour:

Journeyman \$ 21.65

OVERTIME PAY

See (B, E, E2, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour:

1500 hour terms at the following percentage of Journeyman's wage:

| | | | |
|-----|-----|-----|-----|
| 1st | 2nd | 3rd | 4th |
| 50% | 60% | 70% | 80% |

Supplemental benefits per hour:

| | |
|----------------|----------|
| 1st term | \$ 13.75 |
| 2nd - 4th term | 21.65 |

5-3h

Mason - Tile Finisher

08/01/2018

JOB DESCRIPTION Mason - Tile Finisher

DISTRICT 5

ENTIRE COUNTIES

Chautauqua

PARTIAL COUNTIES

Allegany: Entire County with the exception of the Towns of Alfred, Almond, Andover and Burns.
Cattaraugus: With the exception of the Township of Perrysburg and the Village of Gowanda.

WAGES

| | | | |
|--|------------|------------|------------|
| Per hour: | 07/01/2018 | 07/01/2019 | 07/01/2020 |
| Building: | | Additional | Additional |
| Marble, Slate, Terrazzo and Tile Finisher | \$ 26.69 | \$ 0.95 | \$ 1.00 |

Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day.

NOTE - In order to use the '4 Day/10 Hour Work schedule', as your normal schedule, you must submit an 'Employer Registration for Use of 4 Day/10 Hour Work Schedule,' form PW30.1; and there must be a dispensation of hours in place on the project. If the PW30.1 is not submitted you may be liable for overtime payments for work over 8 hours per day.

SUPPLEMENTAL BENEFITS

Per hour: \$ 17.27

OVERTIME PAY

See (B,E,E2*,Q) on OVERTIME PAGE

*Note - Or other conditions beyond the employer's control such as fire or natural disaster.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour:

1st and 2nd term 1200 hours and 3rd term 1300 hours at the following percentage of Journeyman's rate:

| | | |
|---------|---------|---------|
| 1st | 2nd | 3rd |
| \$13.65 | \$16.16 | \$21.49 |

Supplemental benefits per hour:

| | | |
|---------|----------|----------|
| 1st | 2nd | 3rd |
| \$ 8.23 | \$ 10.14 | \$ 13.64 |

5-3TF - Z2

Mason - Tile Finisher

08/01/2018

JOB DESCRIPTION Mason - Tile Finisher

DISTRICT 5

ENTIRE COUNTIES

Erie, Niagara, Orleans

PARTIAL COUNTIES

Cattaraugus: Only the Township of Perrysburg and the Village of Gowanda.

WAGES

Per hour: 07/01/2018

Building:

Marble, Slate, Terrazzo \$ 29.13
and Tile Finisher

Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day.

NOTE - In order to use the '4 Day/10 Hour Work schedule', as your normal schedule, you must submit an 'Employer Registration for Use of 4 Day/10 Hour Work Schedule,' form PW30.1; and there must be a dispensation of hours in place on the project. If the PW30.1 is not submitted you may be liable for overtime payments for work over 8 hours per day.

SUPPLEMENTAL BENEFITS

Per hour: \$ 16.05

OVERTIME PAY

See (B,E,E2*,Q) on OVERTIME PAGE

*Note - Or other conditions beyond the employer's control such as fire or natural disaster.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour:

1200 hours 1st and 2nd term and 1300 hours 3rd term at the following wage:

| | | |
|----------|----------|----------|
| 1st | 2nd | 3rd |
| \$ 15.26 | \$ 17.92 | \$ 24.01 |

Supplemental benefits per hour:

| | | |
|---------|---------|----------|
| 1st | 2nd | 3rd |
| \$ 7.23 | \$ 9.11 | \$ 12.09 |

5-3TF - Z3

Mason - Tile Setter

08/01/2018

JOB DESCRIPTION Mason - Tile Setter

DISTRICT 5

ENTIRE COUNTIES

Erie, Niagara, Orleans

PARTIAL COUNTIES

Cattaraugus: Only in the Township of Perrysburg and the Village of Gowanda.

WAGES

Per hour: 07/01/2018
Building:
Marble, Slate, Terrazzo and Tile Setter \$ 31.57

Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day.

NOTE - In order to use the '4 Day/10 Hour Work schedule', as your normal schedule, you must submit an 'Employer Registration for Use of 4 Day/10 Hour Work Schedule,' form PW30.1; and there must be a dispensation of hours in place on the project. If the PW30.1 is not submitted you may be liable for overtime payments for work over 8 hours per day.

SUPPLEMENTAL BENEFITS

Per hour: \$ 25.76

OVERTIME PAY

See (B,E,E2*,Q) on OVERTIME PAGE

*Note - Or other conditions beyond the employer's control such as fire or natural disaster.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour:

1250 hour terms at the following wage:

| | | | |
|----------|----------|----------|----------|
| 1st | 2nd | 3rd | 4th |
| \$ 18.14 | \$ 18.68 | \$ 21.63 | \$ 25.79 |

Supplemental benefits per hour:

| | | | |
|----------|----------|----------|----------|
| 1st | 2nd | 3rd | 4th |
| \$ 10.43 | \$ 17.08 | \$ 19.19 | \$ 20.72 |

5-3TS - Z3

Mason - Tile Setter

08/01/2018

JOB DESCRIPTION Mason - Tile Setter

DISTRICT 5

ENTIRE COUNTIES

Chautauqua

PARTIAL COUNTIES

Allegany: Entire County with the exception of the towns of Alfred, Almond, Andover and Burns.
Cattaraugus: With the exception of the Township of Perrysburg and the Village of Gowanda.

WAGES

| | | | |
|---|------------|------------|------------|
| Per hour: | 07/01/2018 | 07/01/2019 | 07/01/2020 |
| Building: | | Additional | Additional |
| Marble, Slate, Terrazzo and Tile Setter | \$ 31.69 | \$ 0.95 | \$ 1.00 |

Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day.

NOTE - In order to use the '4 Day/10 Hour Work schedule', as your normal schedule, you must submit an 'Employer Registration for Use of 4 Day/10 Hour Work Schedule,' form PW30.1; and there must be a dispensation of hours in place on the project. If the PW30.1 is not submitted you may be liable for overtime payments for work over 8 hours per day.

SUPPLEMENTAL BENEFITS

Per hour:

Journeyman \$ 17.71

OVERTIME PAY

See (B,E,E2*,Q) on OVERTIME PAGE

*Note - Or other conditions beyond the employer's control such as fire or natural disaster.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour:

One year terms at the following percentage of Journeyman's wage:

| 1st | 2nd | 3rd | 4th |
|---------|---------|---------|---------|
| \$15.32 | \$19.43 | \$21.70 | \$24.53 |

Supplemental benefits per hour:

| 1st | 2nd | 3rd | 4th |
|---------|----------|----------|----------|
| \$ 9.28 | \$ 11.37 | \$ 13.46 | \$ 15.55 |

5-3TS - Z2

Millwright

08/01/2018

JOB DESCRIPTION Millwright

DISTRICT 7

ENTIRE COUNTIES

Allegany, Broome, Cattaraugus, Cayuga, Chautauqua, Herkimer, Madison, Seneca, Tioga, Yates

WAGES

| Per Hour | 07/01/2018 | 05/01/2019 | 07/01/2019 Additional | 07/01/2020 Additional |
|------------------|------------|------------|--------------------------|--------------------------|
| Building | \$ 27.78 | \$27.78 | \$ 1.60 | \$ 1.60 |
| Heavy & Highway* | N/A | 29.78 | 1.60 | 1.60 |

*Effective 5/1/2019, all Heavy and Highway Millwright construction will be paid at the rate indicated above.

NOTE - ADDITIONAL PREMIUMS PAID FOR THE FOLLOWING WORK LISTED BELOW (amount subject to any overtime premiums):

- Certified Welders shall receive \$1.75 per hour in addition to the current Millwright's rate, provided he/she is directed to perform certified welding.
- If a work site has been declared a hazardous site by the Owner and the use of protective gear (including, as a minimum, air purifying canister-type chemical respirators) is required, then that employee shall receive a \$1.50 premium per hour.
- An employee performing the work of a machinist shall receive \$2.00 per hour in addition to the current Millwright's rate. For the purpose of this premium to apply, a "machinist" is a person who uses a lathe, Bridgeport, milling machine or similar type of tool to make or modify parts.
- When performing work underground at 500 feet and below, the employee shall receive an additional \$0.25. This amount will increase to \$0.50 on 7/1/2019 and to \$1.00 on 7/1/2020.

SUPPLEMENTAL BENEFITS

Per hour:

Journeyman \$ 20.85

OVERTIME PAY

See (B, E, *E2, Q) on OVERTIME PAGE

*Note - Saturday may be used as a make-up day and worked at the straight time rate of pay during a work week when conditions such as weather, power failure, fire, or natural disaster prevent the performance of work on a regular scheduled work day.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

NOTE: Any holiday that falls on Sunday shall be observed the following Monday. Any holiday that falls on a Saturday shall be observed the preceding Friday.

REGISTERED APPRENTICES

WAGES: (1) year terms at the following percentage of Journeyman's wage.

| 1st | 2nd | 3rd | 4th |
|-----|-----|-----|-----|
| 60% | 70% | 80% | 90% |

SUPPLEMENTAL BENEFITS per hour worked:

| | |
|----------------|----------|
| Appr. 1st year | \$ 10.15 |
| Appr. 2nd year | 17.65 |
| Appr. 3rd year | 18.71 |
| Appr. 4th year | 19.79 |

7-1163 Zone 2

Operating Engineer - Building

08/01/2018

JOB DESCRIPTION Operating Engineer - Building

DISTRICT 12

ENTIRE COUNTIES

Cattaraugus, Chautauqua, Erie, Orleans, Wyoming

PARTIAL COUNTIES

Genesee: Only that portion of the county that lies west of a line down the center of Route 98 excluding that area that lies within the City of Batavia.

WAGES

CLASS A: Air Hoist, All Boom Type Equipment, All Pans and Carry-Alls, Archer Hoist, Asphalt Curb and Gutter Machines, Asphalt Roller, Asphalt Spreader or Paver, Automatic Fine Grade Machine (CMI or similar, first and second operator), Backhoe and Pullhoe, Backhoe and Pullhoe (tractor mounted, rubber tired), Back Filling Machine, Belt Placer (CMI or similar type), Bending Machine (Pipe), Bituminous Spreader and Mixer, Blacktop Plants (Automated and Non-automated), Blast or Rotary Drill (Truck or Track Mounted), Blower for Burning Brush, Boiler (when used for power), Boom Truck (excluding pick-up and delivery), Boring Machine, Bulldozer, Cableway, Cage Hoist, Caisson Auger, Central Mix Plant (and all concrete batching plants), Cherry Picker, Concrete Cleaning Decontamination Machine Operator, Concrete Curb and Gutter Machine, Concrete Curing Machine, Concrete Cutters (Vermeer or Similar Type), Concrete Mixer (over 1/2 cu yd.), Concrete Pavement Spreaders and Finishers, Concrete Paver, Concrete Pump, Conveyor, Core Drill, Crane, Crusher, Decon of Equipment, Derrick, Dragline, Dredge, Drill Rig (Tractor Mounted), Dual Drum Paver, Electric Pump used in conjunction with Well Point Systems, Elevating Grader (self propelled or towed), Elevator, Excavator (all purpose, hydraulically operated), Farm Tractor with Accessories, Fine Grade Machine, Forklift, Front End Loader, Generator (10 outlets or more), Gradall, Grader, Grout or Guniting Machine, Head Tower, Heavy Equipment Robotics Operator/Mechanic, Helicopter (when used for hoisting), Hoist (one drum), Hoisting Engine, Horizontal Directional Drill Locator, Horizontal Directional Drill Operator, Hydraulic Boom, Hydraulic Hammer (self-propelled), Hydraulic Pipe Jack Machine (or similar type machine), Hydraulic Rock Expander (or similar type machine), Hydraulic System Pumps, Hydro Crane, Hydro Hammer (or similar type), Industrial Tractor, Jersey Spreader, Kolman Plant Loader (and similar type loaders), Laser Screed, Locomotive, Lubrication Truck, Maintenance Engineer, Maintenance, Lubrication Unit or Truck, Mine Hoist, Mixer for Stabilized Base (self-propelled), Monorail, Motorized Hydraulic Pin Puller, Motorized Hydraulic Seeder, Mucking Machine, Mulching Machine, Multiple Drum Hoist (more than one drum in use), Overhead Crane, Peine Crane (or similar type), Pile Driver, Plant Engineer, Pneumatic Mixer, Post Hole Digger and Driver, Power Broom, Pump Crete, Push Button Hoist, Push or Snatch Cat, Quarry Master or equivalent, Road Widener, Rock Bit Sharpener (all types), Roller (all), Rolling Machine (pipe), Rotomill, Scissors Trucks, Lift, or Boom Lift of any type (when used for hoisting), Scoopmobile, Shovel, SideBoom, Skidsteer/Bobcat (Similar Type), Skimmer, Slip Form Paver (CMI or similar type), Snorkel/Vacuum Truck, Strato-Tower, Stump Chipping Machine, Tire Truck and Drivers performing tire repair (exclude outside vendor), Towed Roller, Tractor Drawn Belt-Type Grader/Loader, Tractor Shovel, Tractor with Towed Accessories, Tractor (when using winch power), Tractors, Trencher, Truck Crane, Truck Mechanic and Helper (exclude Teamsters when repairing their own trucks), Tunnel Shovel, Tube Finisher (CMI and similar type), Ultra High Pressure Waterjet Cutting Tool System Operator/Mechanic, Vacuum Blasting Machine Operator/Mechanic, Vibratory Compactor, Vibro Tamp, Well Drilling Machine, Well Point, Winch, Winch Truck with A Frame.

CLASS B: Aggregate Bin, Aggregate Plant, Apprentice Engineer, Apprentice Engineer Driver, Articulated Off Road Material Hauler, Boiler (used in conjunction with production), CMI and similar type Concrete Spreads (Apprentice Engineer), Cement Bin, Chipping Machine and Chip Spreader, Compressors (4 or less), Compressors (any size, but subject to other provisions for Compressors, Dust Collectors, Generators, Mechanical Heaters, Pumps, Welding Machines - four of any type or combination), Concrete Mixer (1/2 cu. yd. and under), Fireman, Form Tamper, Form Trucks (excluding Teamster or delivery), Fuel Truck or Drivers (exclude Teamster or delivery), Heaters, Heating Boiler (used for temporary heat), Helper on Lubrication Unit or Truck, Jeep Trencher, Power Heaterman, Power Plant in excess of 10 K.W., Pumps, Revinus Widener, Steam Boilers (if manning or license by local law is required), Steam Cleaner (when used for cleaning equipment on the job site), Welding Machine (1 machine over 300 amps or 2 or 3 machines regardless of amps).

Operating Engineer- Building:

| | |
|------------------------|------------|
| Per hour: | 07/01/2018 |
| Class A | \$ 36.86 |
| Class B | 32.38 |
| Crane(boom over 100ft) | 37.39 |
| " (boom over 200ft) | 37.86 |
| " (boom over 300ft) | 38.36 |

Additional \$3.00/hr. for Lattice Boom

Additional \$3.00/hr. for Hydraulic Crane over 60 tons.

Additional \$2.50/hr. for Hazardous Work Site

Additional \$1.00/hr. for Tunnel Work

Additional \$1.50/hr. for Mandated Off-Shift Work

SUPPLEMENTAL BENEFITS

Per Hour:

Journeyman \$ 28.45*

*Note: For Overtime Hours \$20.25 of this amount is paid a straight time, the remaining balance of \$8.20 is paid at the same premium as the wage.

OVERTIME PAY

See (B, E, *E2, P) on OVERTIME PAGE

* Only Saturdays between October 15th and April 15th.

HOLIDAY

Paid: See (5, 6) on HOLIDAY PAGE
Overtime: See (1) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour:

1 year Terms

| 1st | 2nd | 3rd | 4th |
|---------|---------|---------|---------|
| \$26.70 | \$27.59 | \$28.47 | \$29.36 |

Supplemental benefits Per Hour:

All Apprentices \$27.55*

*Note: For Overtime Hours \$20.25 of this amount to be paid a straight time rate
remaining balance of \$7.30 is paid at same premium as the wage.

12-17b

Operating Engineer - Heavy&Highway

08/01/2018

JOB DESCRIPTION Operating Engineer - Heavy&Highway

DISTRICT 12

ENTIRE COUNTIES

Cattaraugus, Chautauqua, Erie, Orleans, Wyoming

PARTIAL COUNTIES

Genesee: Only that portion of the county that lies west of a line down the center of Route 98 excluding that area that lies within the City of Batavia.

WAGES

CLASS A: Air Hoist, All Boom Type Equipment, All Pans and Carry-Alls, Asphalt Curb and Cutter Machines, Asphalt Roller, Asphalt Spreader or Paver, Automatic Fine Grade Machine (CMI or similar, first and second operator), Backhoe and Pullhoe (all), Back Filling Machine, Belt Placer (CMI or similar type), Bending Machine (pipe), Bituminous Spreader and Mixer, Blacktop Plant (all), Blast or Rotary Drill (Truck or Track Mounted), Blower for Burning Brush, Boiler (when used for power), Boom Truck, Boring Machine, Bulldozer, Cableway, Cage Hoist, Caisson Auger, Central Mix Plant (and all Concrete Batching Plants), Cherry Picker, Concrete Cleaning Decontamination Machine, Concrete Curb and Gutter Machine, Concrete Curing Machine, Concrete Mixer (over 1/2 cu. yd.), Concrete Pavement Spreaders and Finishers, Concrete Paver, Concrete Pump, Concrete Saw (self propelled), Conveyor, Conveying Vehicles Conveying Engineer's Equipment, Core Drill, Crane, Crusher, Decontamination of Equipment, Derrick, Dragline, Dredge, Drill Rig (Tractor Mounted), Dual Drum Paver, Electric Pump used in conjunction with Well Point Systems, Elevating Grader (self propelled or towed), Elevator, Excavator (all purpose, hydraulically operated), Farm Tractor with Accessories, Fine Grade Machine, Forklift, Front End Loader, Gradall, Grader, Grout or Gunite Machine, Head Tower, Heavy Equipment Robotics Operator/Mechanic, Hoist (all types), Hoisting Engine, Horizontal Directional Drill Locator, Horizontal Directional Drill Operator, Hydraulic Boom, Hydraulic Hammer (self propelled), Hydraulic Pipe Jack Machine, (or similar type machine), Hydraulic Rock Expander (or similar type machine), Hydraulic System Pumps, Industrial Tractor, Jersey Spreader, Kolman Plant Loader (and similar type Loaders), Laser Screed, Locomotive, Log Skidder (similar type), Maintenance Engineer, Maintenance, Lubrication Unit or Truck, Mine Hoist, Mixer for Stabilized Base (self propelled), Monorail, Motorized Hydraulic Pin Puller, Motorized Hydraulic Seeder, Mucking Machine, Mulching Machine, Overhead Crane, Parts Chasing, Peine Crane (or similar type), Pile Driver, Plant Engineer, Pneumatic Mixer, Post Hole Digger and Post Driver, Power Broom, Pump Crete, Push Button Hoist, Push or Snatch Cat, Quarry Master (or equivalent), Road Widener, Rock Bit Sharpener (all types), Roller (all), Rolling Machine (Pipe), Rotomill, Scoopmobile, Shovel, Side Boom, Skidsteer/Bobcat (similar type), Skimmer, Slip Form Paver (CMI or similar, first and second operator), Snorkel/Vacuum Truck, Strato-Tower, Tire Truck & Repair, Towed Roller, Tractor Drawn Belt-Type Grader/Loader, Tractor Shovel, Tractor with Towed Accessories, Tractors (when using winch power), Trencher, Truck Crane, Tug Boats, Tunnel Shovel, Tube Finisher (CMI and similar), Vacuum Blasting Machine Operator/Mechanic, Vibratory Compactor, Vibro Tamp, Waterjet Cutting Tool System Operator/Mechanic (Ultra High Pressure), Well Drilling Machine, Well Point, Winch, Winch Truck with A Frame.

CLASS B: Aggregate Bin, Aggregate Plant, Apprentice Engineer, Apprentice Engineer Driver, Articulated Off Road Material Hauler, CMI and similar type Concrete Spreads (Apprentice Engineer), Cement Bin, Chipping Machine and Chip Spreader, Compressors (4 or less), Compressors: any size, but subject to other provisions for Compressors, Dust Collectors, Generators, Mechanical Heaters, Pumps, Welding Machines (four of any type or combination), Concrete Mixer (1/2 cu. yd. and under), Fireman, Form Tamper, Fuel Truck, Heating Boiler (used for temporary heat), Helper on Lubrication Unit or Truck, Jeep Trencher, Power Heaterman, Power Plant in excess of 10 K.W., Pumps (4" or over), Revinus Widener, Steam Cleaner, Stump Chipping Machine, Welding Machine (1 machine over 300 amps or 2 or 3 machines regardless of amps).

Operating Engineer- Building Site, Heavy/Highway, Sewer/Water, Tunnel:

| | |
|------------------------|------------|
| Per hour: | 07/01/2018 |
| Class A | \$ 38.09 |
| Class B | 33.59 |
| Crane(boom over 100ft) | 38.84 |
| " (boom over 200ft) | 39.09 |

" (boom over 300ft) 39.59

Additional \$3.00/hr. for Lattice Boom
Additional \$3.00/hr. for Hydraulic Crane over 60 tons
Additional \$2.50/hr. for Hazardous Work Site
Additional \$1.00/hr. for Tunnel Work
Additional \$1.50/hr. for Mandated Off-Shift Work

SUPPLEMENTAL BENEFITS

Per hour:

Journeyman \$ 30.31*

*Note: For Overtime Hours \$22.61 of the amount paid at straight time, the remaining balance of \$7.70 is paid at the same premium as the wage.

OVERTIME PAY

See (B, E, Q, T) on OVERTIME PAGE

HOLIDAY

Paid: See (*5, **6) on HOLIDAY PAGE

Overtime: See (***5, ****6) on HOLIDAY PAGE

*,** NOTE: If Holiday falls on a Sunday it will be celebrated on Monday

,* NOTE: If employee works that Monday use "T" under Overtime Pay.

REGISTERED APPRENTICES

Wages per hour:

Apprentices at 1 year terms

| 1st | 2nd | 3rd | 4th |
|---------|---------|---------|---------|
| \$30.59 | \$31.59 | \$32.59 | \$33.59 |

Supplemental Benefits

All Apprentices \$29.91*

Note: For Overtime Hours \$22.61 of this amount is paid at straight time , the remaining balance of \$7.30 is paid at the same premium as the wage.

12-17 hh/sw/t

Operating Engineer - Survey Crew

08/01/2018

JOB DESCRIPTION Operating Engineer - Survey Crew

DISTRICT 12

ENTIRE COUNTIES

Cattaraugus, Chautauqua, Erie, Orleans, Wyoming

PARTIAL COUNTIES

Genesee: Only that portion of the county that lies west of a line down the center of Route 98 excluding that area that lies within the City of Batavia.

WAGES

These rates apply to Building and Heavy Highway.

Per hour:

SURVEY CLASSIFICATIONS:

Party Chief - One who directs a survey party.

Instrument Person - One who operates the surveying instruments.

Rod Person - One who holds the rods and assists the Instrument Person.

07/01/2018

| | |
|-------------------|----------|
| Party Chief | \$ 40.45 |
| Instrument Person | 38.17 |
| Rod Person | 26.48 |

Additional \$3.00 per hr. for work in a Tunnel.

Additional \$2.50 per hr. for EPA or DEC certified toxic or hazardous waste work.

SUPPLEMENTAL BENEFITS

Per hour worked:

Journeyman \$ 25.75

OVERTIME PAY

See (B, E, P, T) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 6) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

WAGES: 1000 hour terms for at percentage of Wage:

07/01/2018

| | |
|---------------|-----|
| 0-1000 Hrs | 60% |
| 1001-2000 Hrs | 70% |
| 2001-3000 Hrs | 80% |

SUPPLEMENTAL BENEFITS per hour worked:

| | |
|---------------|----------|
| 0-1000 Hrs | \$ 15.83 |
| 1001-2000 Hrs | 18.48 |
| 2001-3000 Hrs | 21.13 |

12-17D Sur

Operating Engineer - Survey Crew - Consulting Engineer

08/01/2018

JOB DESCRIPTION Operating Engineer - Survey Crew - Consulting Engineer

DISTRICT 12

ENTIRE COUNTIES

Cattaraugus, Chautauqua, Erie, Orleans, Wyoming

PARTIAL COUNTIES

Genesee: Only that portion of the county that lies west of a line down the center of Route 98 excluding that area that lies within the City of Batavia.

WAGES

These rates apply to feasibility and preliminary design surveying, line of grade surveying for inspection or supervision of construction when performed under a Consulting Engineer Agreement.

Per hour:

SURVEY CLASSIFICATIONS:

Party Chief - One who directs a survey party.

Instrument Person - One who operates the surveying instruments.

Rod Person - One who holds the rods and assists the Instrument Person.

07/01/2018

| | |
|-------------------|----------|
| Party Chief | \$ 40.45 |
| Instrument Person | 38.17 |
| Rod Person | 26.48 |

SUPPLEMENTAL BENEFITS

Per hour worked:

Journeyman \$ 25.75

OVERTIME PAY

See (B, E, P, T) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 6) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

WAGES: 1000 hour terms based on the Percentage of Rod Persons Wage:

07/01/2018

| | |
|-----------|-----|
| 0-1000 | 60% |
| 1001-2000 | 70% |
| 2001-3000 | 80% |

SUPPLEMENTAL BENEFITS per hour worked:

| | |
|-----------|----------|
| 0-1000 | \$ 15.83 |
| 1001-2000 | 18.48 |
| 2001-3000 | 21.13 |

12-17D Con Eng

| | |
|----------------|-------------------|
| Painter | 08/01/2018 |
|----------------|-------------------|

JOB DESCRIPTION Painter

DISTRICT 3

ENTIRE COUNTIES

Allegany, Erie, Genesee, Niagara, Orleans, Wyoming

PARTIAL COUNTIES

Cattaraugus: Entire County except the Townships of Conewango, Leon, Napoli, New Albion, Randolph and South Valley.

Chautauqua: Only the Townships of Awkright, Dunkirk, Hanover, Pomfret, Portland, Sheridan and Villenova.

Livingston: Only the Townships of North Dansville, Nunda, Ossian, Portage, Sparta, Spring Water and West Sparta.

Steuben: Only the Townships of Avoca, Canisteo, Cohocton, Dansville, Fremont, Greenwood, Hartsville, Hornellsville, Howard, Jasper, Prattsburg, Pulteney, Troupsburg, Tuscarora, Urbana, Wayland, Wayne, Woodhull, West Union, Wheeler, and the City of Hornell.

WAGES

| Per hour: | 07/01/2018 | 05/01/2019 |
|------------------------------|------------|------------|
| | | Additional |
| Basic Rate (Brush & Roll) | \$ 25.95 | \$ 1.00 |
| Spray painting, wallcovering | 25.95 | 1.00 |
| Abrasive and hydroblasting | 25.95 | 1.00 |
| Taping/DryWall Finisher | 26.45 | 1.00 |
| Skeleton Steel* | 26.70 | 1.00 |

* Skeleton Steel: No floors, walls or ceiling are constructed, including radio and television towers, flagpoles, smokestacks, cranes and the abatement of coatings with lead, asbestos and/or arsenic, etc. All work within the confines of a plant shall be paid the skeleton steel rate (except in-plant tank work (see Tank Rate)).

Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day.

NOTE - In order to use the '4 Day/10 Hour Work schedule', as your normal schedule, you must submit an 'Employer Registration for Use of 4 Day/10 Hour Work Schedule,' form PW30.1; and there must be a dispensation of hours in place on the project. If the PW30.1 is not submitted you may be liable for overtime payments for work over 8 hours per day.

SUPPLEMENTAL BENEFITS

Per hour:

\$ 24.84

OVERTIME PAY

Exterior work only See (B, E4, F*, R) on OVERTIME PAGE.

All other work See (B, F*, R) on OVERTIME PAGE.

* Note - Saturday is payable at straight time if the employee misses work, except where a doctor's or hospital verification of illness is produced Monday through Friday when work was available to the employee.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour:

Painter/Decorator: 750 hour terms at the following percentage of Journeyman's Basic wage rate:

| | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|
| 1st | 2nd | 3rd | 4th | 5th | 6th | 7th | 8th |
| 50% | 55% | 60% | 65% | 70% | 75% | 80% | 90% |

Taper/Drywall Finisher: 750 hour terms at the following percentage of Journeyman's Taper wage:

| | | | | | |
|-----|-----|-----|-----|-----|-----|
| 1st | 2nd | 3rd | 4th | 5th | 6th |
| 50% | 55% | 60% | 65% | 75% | 85% |

Supplemental benefits per hour:

Painter/Decorator and Taper/Drywall Finisher:

| | | | | | | | |
|---------|---------|---------|---------|---------|---------|---------|---------|
| 1st | 2nd | 3rd | 4th | 5th | 6th | 7th | 8th |
| \$ 2.30 | \$ 4.30 | \$ 5.30 | \$ 5.80 | \$ 6.30 | \$ 6.80 | \$ 7.30 | \$ 7.55 |

3-4-Buf, Nia, Olean

| | |
|----------------|-------------------|
| Painter | 08/01/2018 |
|----------------|-------------------|

JOB DESCRIPTION Painter

DISTRICT 3

ENTIRE COUNTIES

PARTIAL COUNTIES

Cattaraugus: Only the Townships of Conewango, Leon, Napoli, New Albion, Randolph and South Valley.
Chautauqua: Only the Townships of Busti, Carroll, Charlotte, Chautauqua, Cherry Creek, Clymer, Ellery, Ellicott, Ellington, French Creek, Gerry, Harmony, Kiantone, Mina, North Harmony, Poland, Ripley, Sherman, Stockton, Westfield and the City of Jamestown.

WAGES

| Per hour: | 07/01/2018 | 05/01/2019 Additional |
|---------------------------------|------------|--------------------------|
| Brush & Roller, taping, | \$ 25.65 | \$ 1.00 |
| wallcovering, swing & bosun | 25.65 | 1.00 |
| under 3 stories or under 35 ft | 25.65 | 1.00 |
| Swing & bosun over 3 stories or | 25.90 | 1.00 |
| over 35 feet, steel painting | 25.90 | 1.00 |
| All spraying, steam cleaning & | 26.30 | 1.00 |
| sandblasting, all toxic coating | 26.30 | 1.00 |
| Stacks | 26.95 | 1.00 |

Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day.

NOTE - In order to use the '4 Day/10 Hour Work schedule', as your normal schedule, you must submit an 'Employer Registration for Use of 4 Day/10 Hour Work Schedule,' form PW30.1; and there must be a dispensation of hours in place on the project. If the PW30.1 is not submitted you may be liable for overtime payments for work over 8 hours per day.

SUPPLEMENTAL BENEFITS

Per hour:

\$ 17.58

OVERTIME PAY

Exterior work only See (B, E4, F*, R) on OVERTIME PAGE.

All other work See (B, F*, R) on OVERTIME PAGE.

* Note - Saturday is payable at straight time if the employee misses work, except where a doctor's or hospital verification of illness is produced Monday through Friday when work was available to the employee.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour:

Painter/Decorator: 750 hour terms at the following percentage of Journeyman's Basic wage rate:

| | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|
| 1st | 2nd | 3rd | 4th | 5th | 6th | 7th | 8th |
| 50% | 55% | 60% | 65% | 70% | 75% | 80% | 90% |

Taper/Drywall Finisher: 750 hour terms at the following percentage of Journeyman's Taper wage:

| | | | | | |
|-----|-----|-----|-----|-----|-----|
| 1st | 2nd | 3rd | 4th | 5th | 6th |
| 50% | 55% | 60% | 65% | 75% | 85% |

Supplemental benefits per hour:

Painter/Decorator and Taper/Drywall Finisher:

| | | | | | | | |
|---------|---------|---------|---------|---------|---------|---------|---------|
| 1st | 2nd | 3rd | 4th | 5th | 6th | 7th | 8th |
| \$ 2.30 | \$ 4.30 | \$ 5.30 | \$ 5.80 | \$ 6.30 | \$ 6.80 | \$ 7.30 | \$ 7.55 |

3-4-Jamestown

Painter

08/01/2018

JOB DESCRIPTION Painter

DISTRICT 3

ENTIRE COUNTIES

Allegany, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Cortland, Delaware, Erie, Genesee, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Niagara, Oneida, Onondaga, Ontario, Orleans, Oswego, Otsego, Schuyler, Seneca, St. Lawrence, Steuben, Tioga, Tompkins, Wayne, Wyoming, Yates

WAGES

| Per hour: | 07/01/2018 | 05/01/2019 Additional |
|-----------|------------|--------------------------|
| Bridge | \$ 38.00 | \$ 1.05 |
| Tunnel | 38.00 | 1.05 |
| Tank* | 36.00 | 1.05 |

For Bridge Painting Contracts, ALL WORKERS on and off the bridge (including Flagmen) are to be paid Painter's Rate; the contract must be ONLY for Bridge Painting.

Tank rate applies to indoor and outdoor tanks, tank towers, standpipes, digesters, waste water treatment tanks, chlorinator tanks, etc. Covers all types of tanks including but not limited to steel tanks, concrete tanks, fiberglass tanks, etc.

Note an additional \$2.00 per hour is required when the contracting agency or project specification requires any shift to start prior to 6:00am or after 12:00 noon.

SUPPLEMENTAL BENEFITS

Per hour:

\$ 28.15

OVERTIME PAY

Exterior work only See (B, E4, F*, R) on OVERTIME PAGE.

All other work See (B, F*, R) on OVERTIME PAGE.

*Note - Saturday is payable at straight time if the employee misses work, except where a doctor's or hospital verification of illness is produced Monday through Friday when work was available to the employee.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour:

750 hour terms at the following percentage of Journeyman's wage rate:

| 1st | 2nd | 3rd | 4th | 5th | 6th |
|-----|-----|-----|-----|-----|-----|
| 50% | 55% | 60% | 65% | 75% | 85% |

Supplemental benefits per hour:

| | |
|-----------------|---------|
| 1st & 2nd terms | \$ 5.40 |
| 3rd & 4th terms | 5.40 |
| 5th & 6th terms | 6.40 |

3-4-Bridge, Tunnel, Tank

Painter - Metal Polisher

08/01/2018

JOB DESCRIPTION Painter - Metal Polisher

DISTRICT 8

ENTIRE COUNTIES

Albany, Allegany, Bronx, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Dutchess, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Kings, Lewis, Livingston, Madison, Monroe, Montgomery, Nassau, New York, Niagara, Oneida, Onondaga, Ontario, Orange, Orleans, Oswego, Otsego, Putnam, Queens, Rensselaer, Richmond, Rockland, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Suffolk, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Westchester, Wyoming, Yates

WAGES

07/01/2018

| | |
|------------------|----------|
| Metal Polisher | \$ 30.58 |
| Metal Polisher* | 31.53 |
| Metal Polisher** | 34.08 |

*Note: Applies on New Construction & complete renovation

** Note: Applies when working on scaffolds over 34 feet.

SUPPLEMENTAL BENEFITS

Per Hour: 07/01/2018

Journeyworker:

All classification \$ 7.72

OVERTIME PAY

See (B, E, P, T) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 6, 11, 15, 16, 25, 26) on HOLIDAY PAGE

Overtime: See (5, 6, 9, 11, 15, 16, 25, 26) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour:

One (1) year term at the following wage rates:

| | 07/01/2018 | 01/01/2019 |
|------------|------------|------------|
| 1st year | \$ 13.00 | \$ 15.00 |
| 2nd year | 13.00 | 15.00 |
| 3rd year | 15.75 | 15.75 |
| 1st year* | \$ 15.39 | \$ 17.39 |
| 2nd year* | 15.44 | 17.44 |
| 3rd year* | 16.29 | 18.29 |
| 1st year** | \$ 17.50 | 19.50 |
| 2nd year** | 17.50 | 19.50 |
| 3rd year** | 18.25 | 20.25 |

*Note: Applies on New Construction & complete renovation

** Note: Applies when working on scaffolds over 34 feet.

Supplemental benefits:
Per hour:

| | | |
|----------|---------|---------|
| 1st year | \$ 5.52 | \$ 5.52 |
| 2nd year | 5.52 | 5.52 |
| 3rd year | 5.52 | 5.52 |

8-8A/28A-MP

Plumber

08/01/2018

JOB DESCRIPTION Plumber

DISTRICT 3

ENTIRE COUNTIES

PARTIAL COUNTIES

Allegany: Only the Townships of Alma, Amity, Bolivar, Clarksville, Cuba, Friendship, Genesee, Wirt and that portion of Scio which lies west of Rt. 19.

Cattaraugus: Only the Townships of Allegany, Carrollton, Conewango, Cold Spring, Great Valley, Hinsdale, Humphrey, Ischua, Little Valley, Napoli, Olean, Portville, Randolph, Red House, Salamanca, South Valley, the City of Olean, the City of Salamanca, and the Allegany Indian Reservation.

Chautauqua: Only the Townships of Busti, Carroll, Chautauqua, Clymer, Ellery, Ellicott, Ellington, French Creek, Gerry, Harmony, Kiantone, Mina, North Harmony, Poland, Sherman, and the City of Jamestown.

WAGES

Per hour: 07/01/2018

| | |
|-------------|----------|
| Plumber | \$ 32.56 |
| Steamfitter | \$ 32.56 |

Note - Add 10% (ten-percent) to wage when HAZMAT training is required or when OSHA compliant respirator protection is required.

SUPPLEMENTAL BENEFITS

Per hour: \$ 25.31

Note - \$3.20 of this amount must be paid at the same premium as the wage.

OVERTIME PAY

See (*B, **E, Q) on OVERTIME PAGE

* Double time after 11 hours per day on Weekdays.

** Double time after 10 hours per day on Saturday.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6, 16) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour:

One year terms at the following percentage of Journeyman's wage:

| | | | | |
|-----|-----|-----|-----|-----|
| 1st | 2nd | 3rd | 4th | 5th |
| 45% | 55% | 65% | 75% | 90% |

Note - Add 10% (ten-percent) to wage when HAZMAT training is required or when OSHA compliant respirator protection is required.

Supplemental benefits per hour:

\$ 20.85

Note - \$3.20 of this amount must be paid at the same premium as the wage.

3-22-Southern

Plumber**08/01/2018**

JOB DESCRIPTION Plumber**DISTRICT 3****ENTIRE COUNTIES**

Erie, Niagara, Wyoming

PARTIAL COUNTIES

Allegany: Only the Townships of Allen, Angelica, Belfast, Caneadea, Centerville, Granger, Hume, New Hudson and Rushford

Cattaraugus: Only the Townships of Ashford, Dayton, East Otto, Ellicottville, Farmersville, Franklinville, Freedom, Leon, Lyndon, Machias, Mansfield, New Albion, Otto, Perrysburg, Persia and Yorkshire.

Chautauqua: Only the Townships of Arkwright, Charlotte, Cherry Creek, Dunkirk, Hanover, Pomfret, Portland, Ripley, Sheridan, Stockton, Villanova, Westfield, City of Dunkirk and Village of Fredonia.

Genesee: Only the Townships of Alabama, Alexander, Batavia, Darien, Elba, Oakfield, Pembroke and the City of Batavia.

Orleans: Only the Townships of Ridgeway, Shelby and Yates.

WAGES

Per hour: 07/01/2018

Plumber \$ 34.65

Steamfitter \$ 34.65

Note - Add 10% (ten-percent) to wage when HAZMAT training is required or when OSHA compliant respirator protection is required.

SUPPLEMENTAL BENEFITS

Per hour: \$ 25.31

Note - \$3.20 of this amount must be paid at the same premium as the wage.

OVERTIME PAY

See (*B, **E, Q) on OVERTIME PAGE

* Double time after 11 hours per day on Weekdays.

** Double time after 10 hours per day on Saturday.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6, 16) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour:

One year terms at the following percentage of Journeyman's wage:

| | | | | |
|-----|-----|-----|-----|-----|
| 1st | 2nd | 3rd | 4th | 5th |
| 45% | 55% | 65% | 75% | 90% |

Note - Add 10% (ten-percent) to wage when HAZMAT training is required or when OSHA compliant respirator protection is required.

Supplemental benefits per hour:

\$ 20.85

Note - \$3.20 of this amount must be paid at the same premium as the wage.

3-22-Buffalo, Niagara

Roofer**08/01/2018**

JOB DESCRIPTION Roofer**DISTRICT 3****ENTIRE COUNTIES**

Allegany, Cattaraugus, Chautauqua

WAGES

Per hour: 07/01/2018 05/01/2019

Additional

Roofer \$ 30.48 \$ 1.00

Waterproofing 30.48 1.00

Asbestos Removal with respirator or protective suit add \$1.00 per hour.

SUPPLEMENTAL BENEFITS

Per hour: \$ 13.47

OVERTIME PAY

See (B, E, E2, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour:

750 hour terms at the following percentage of Journeyman's wage:

| | | | | | |
|-----|-----|-----|-----|-----|-----|
| 1st | 2nd | 3rd | 4th | 5th | 6th |
| 50% | 50% | 60% | 70% | 80% | 90% |

Supplemental benefits per hour:

| | |
|-----------------|---------|
| 1st & 2nd terms | \$ 0.50 |
| All other terms | 13.47 |

3-210

Sheetmetal Worker

08/01/2018

JOB DESCRIPTION Sheetmetal Worker

DISTRICT 3

ENTIRE COUNTIES

Cattaraugus, Chautauqua

WAGES

Per hour: 07/01/2018

Sheet Metal Worker \$ 27.00

Additional \$1.00 per hour for work performed at a height of fifty (50) feet or more on boatswains chair, swing (of any type), picks and plank.

The following premiums apply when shift work is mandated in the job specification or by the contracting agency:

15% when the majority of the hours are worked between the hours of 3:30PM - 1:00AM

20% when the majority of the hours are worked between the hours of 11:00PM - 9:00AM

SUPPLEMENTAL BENEFITS

Per hour: \$ 23.51

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per:

1000 hour year terms:

| | | | | | | | |
|----------|----------|----------|----------|----------|----------|----------|----------|
| 1st | 2nd | 3rd | 4th | 5th | 6th | 7th | 8th |
| \$ 13.00 | \$ 13.50 | \$ 14.50 | \$ 15.50 | \$ 16.50 | \$ 17.55 | \$ 18.90 | \$ 20.25 |

Supplemental Benefits

07/01/2018

| | |
|----------|----------|
| 1st term | \$ 11.91 |
| 2nd term | 12.60 |
| 3rd term | 14.70 |
| 4th term | 15.51 |
| 5th term | 16.35 |
| 6th term | 17.17 |
| 7th term | 18.01 |
| 8th term | 18.82 |

3-112-Jamestown

Sprinkler Fitter

08/01/2018

JOB DESCRIPTION Sprinkler Fitter

DISTRICT 1

ENTIRE COUNTIES

Allegany, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Niagara, Oneida, Onondaga, Ontario, Orleans, Oswego, Otsego, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Tioga, Tompkins, Washington, Wayne, Wyoming, Yates

WAGES

| | | |
|-----------|------------|------------|
| Per hour | 07/01/2018 | 01/01/2019 |
| Sprinkler | \$ 34.91 | 34.91 |
| Fitter | | |

SUPPLEMENTAL BENEFITS

Per hour

| | | |
|------------|----------|-------|
| Journeyman | \$ 23.14 | 23.69 |
|------------|----------|-------|

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

Note: When a holiday falls on Sunday, the following Monday shall be considered a holiday and all work performed on either day shall be at the double time rate. When a holiday falls on Saturday, the preceding Friday shall be considered a holiday and all work performed on either day shall be at the double time rate.

REGISTERED APPRENTICES

Wages per hour

For Apprentices HIRED ON OR AFTER 04/01/2010:

One Half Year terms at the following percentage of journeyman's wage.

| | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|
| 1st | 2nd | 3rd | 4th | 5th | 6th | 7th | 8th | 9th | 10th |
| 45% | 50% | 55% | 60% | 65% | 70% | 75% | 80% | 85% | 90% |

Supplemental Benefits per hour worked

| | | | | | | | | | |
|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|
| 1st | 2nd | 3rd | 4th | 5th | 6th | 7th | 8th | 9th | 10th |
| \$ 8.93 | \$ 8.97 | \$ 17.09 | \$ 17.13 | \$ 17.68 | \$ 17.72 | \$ 17.77 | \$ 17.81 | \$ 17.86 | \$ 17.90 |

For Apprentices HIRED ON OR AFTER 04/01/2013:

One Half Year terms at the following percentage of journeyman's wage.

| | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|
| 1st | 2nd | 3rd | 4th | 5th | 6th | 7th | 8th | 9th | 10th |
| 45% | 50% | 55% | 60% | 65% | 70% | 75% | 80% | 85% | 90% |

Supplemental Benefits per hour worked

| | | | | | | | | | |
|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|
| 1st | 2nd | 3rd | 4th | 5th | 6th | 7th | 8th | 9th | 10th |
| \$ 8.27 | \$ 8.27 | \$ 17.24 | \$ 17.24 | \$ 17.49 | \$ 17.49 | \$ 17.49 | \$ 17.49 | \$ 17.49 | \$ 17.49 |

1-669

Teamster - Building / Heavy&Highway

08/01/2018

JOB DESCRIPTION Teamster - Building / Heavy&Highway

DISTRICT 3

ENTIRE COUNTIES

Cattaraugus, Chautauqua

PARTIAL COUNTIES

Allegany: Entire county except the Townships of Alfred, Almond, Burns and West Almond.

WAGES

GROUP 1: Warehousemen, Yardmen, Truck Helpers, Panel Trucks, Flatboy Material Trucks (straight jobs), Single Axle Dump Trucks, Dumpsters, Material Checkers and Receivers, Greasers, Truck Tiremen, Mechanics Helpers and Parts Chasers, Tandems and Batch Trucks, Mechanics, Dispatcher, Semi-Trailers, Low-boy Trucks, Asphalt Distributor Trucks, and Agitator, Mixer Trucks and Dumpcrete type vehicles, Truck Mechanic, Fuel Trucks.

GROUP 2: Specialized Earth Moving Equipment, Euclid type, or similar off-highway where not self-loading and self-contained concrete mobile unit, Off-highway Tandem Back-Dump, Twin Engine Equipment and Double-Hitched Equipment where not self-loading, Water Tanks, Sprinkler Trucks and Winch Trucks.

Per hour: 07/01/2018
GROUP 1 \$ 37.60
GROUP 2 37.60

Add \$ 2.00 when required to use personal protection when performing hazardous waste removal work.
Add \$ 2.00 while operating articulating truck.

SUPPLEMENTAL BENEFITS

Per hour:
\$ 13.94

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 20) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

3-264

Welder

08/01/2018

JOB DESCRIPTION Welder

DISTRICT 1

ENTIRE COUNTIES

Albany, Allegany, Bronx, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Dutchess, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Kings, Lewis, Livingston, Madison, Monroe, Montgomery, Nassau, New York, Niagara, Oneida, Onondaga, Ontario, Orange, Orleans, Oswego, Otsego, Putnam, Queens, Rensselaer, Richmond, Rockland, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Suffolk, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Westchester, Wyoming, Yates

WAGES

Per hour 07/01/2018

Welder: To be paid the same rate of the mechanic performing the work.*

*EXCEPTION: If a specific welder certification is required, then the 'Certified Welder' rate in that trade tag will be paid.

OVERTIME PAY

HOLIDAY

1-As Per Trade

Overtime Codes

Following is an explanation of the code(s) listed in the OVERTIME section of each classification contained in the attached schedule. Additional requirements may also be listed in the HOLIDAY section.

NOTE: Supplemental Benefits are 'Per hour worked' (for each hour worked) unless otherwise noted

- (AA) Time and one half of the hourly rate after 7 and one half hours per day
- (A) Time and one half of the hourly rate after 7 hours per day
- (B) Time and one half of the hourly rate after 8 hours per day
- (B1) Time and one half of the hourly rate for the 9th & 10th hours week days and the 1st 8 hours on Saturday.
Double the hourly rate for all additional hours
- (B2) Time and one half of the hourly rate after 40 hours per week
- (C) Double the hourly rate after 7 hours per day
- (C1) Double the hourly rate after 7 and one half hours per day
- (D) Double the hourly rate after 8 hours per day
- (D1) Double the hourly rate after 9 hours per day
- (E) Time and one half of the hourly rate on Saturday
- (E1) Time and one half 1st 4 hours on Saturday; Double the hourly rate all additional Saturday hours
- (E2) Saturday may be used as a make-up day at straight time when a day is lost during that week due to inclement weather
- (E3) Between November 1st and March 3rd Saturday may be used as a make-up day at straight time when a day is lost during that week due to inclement weather, provided a given employee has worked between 16 and 32 hours that week
- (E4) Saturday and Sunday may be used as a make-up day at straight time when a day is lost during that week due to inclement weather
- (E5) Double time after 8 hours on Saturdays
- (F) Time and one half of the hourly rate on Saturday and Sunday
- (G) Time and one half of the hourly rate on Saturday and Holidays
- (H) Time and one half of the hourly rate on Saturday, Sunday, and Holidays
- (I) Time and one half of the hourly rate on Sunday
- (J) Time and one half of the hourly rate on Sunday and Holidays
- (K) Time and one half of the hourly rate on Holidays
- (L) Double the hourly rate on Saturday
- (M) Double the hourly rate on Saturday and Sunday
- (N) Double the hourly rate on Saturday and Holidays
- (O) Double the hourly rate on Saturday, Sunday, and Holidays
- (P) Double the hourly rate on Sunday
- (Q) Double the hourly rate on Sunday and Holidays
- (R) Double the hourly rate on Holidays
- (S) Two and one half times the hourly rate for Holidays, if worked

- (S1) Two and one half times the hourly rate the first 8 hours on Sunday or Holidays One and one half times the hourly rate all additional hours.
- (T) Triple the hourly rate for Holidays, if worked
- (U) Four times the hourly rate for Holidays, if worked
- (V) Including benefits at SAME PREMIUM as shown for overtime
- (W) Time and one half for benefits on all overtime hours.
- (X) Benefits payable on Paid Holiday at straight time. If worked, additional benefit amount will be required for worked hours. (Refer to other codes listed.)

Holiday Codes

PAID Holidays:

Paid Holidays are days for which an eligible employee receives a regular day's pay, but is not required to perform work. If an employee works on a day listed as a paid holiday, this remuneration is in addition to payment of the required prevailing rate for the work actually performed.

OVERTIME Holiday Pay:

Overtime holiday pay is the premium pay that is required for work performed on specified holidays. It is only required where the employee actually performs work on such holidays. The applicable holidays are listed under HOLIDAYS: OVERTIME. The required rate of pay for these covered holidays can be found in the OVERTIME PAY section listings for each classification.

Following is an explanation of the code(s) listed in the HOLIDAY section of each classification contained in the attached schedule. The Holidays as listed below are to be paid at the wage rates at which the employee is normally classified.

- (1) None
- (2) Labor Day
- (3) Memorial Day and Labor Day
- (4) Memorial Day and July 4th
- (5) Memorial Day, July 4th, and Labor Day
- (6) New Year's, Thanksgiving, and Christmas
- (7) Lincoln's Birthday, Washington's Birthday, and Veterans Day
- (8) Good Friday
- (9) Lincoln's Birthday
- (10) Washington's Birthday
- (11) Columbus Day
- (12) Election Day
- (13) Presidential Election Day
- (14) 1/2 Day on Presidential Election Day
- (15) Veterans Day
- (16) Day after Thanksgiving
- (17) July 4th
- (18) 1/2 Day before Christmas
- (19) 1/2 Day before New Years
- (20) Thanksgiving
- (21) New Year's Day
- (22) Christmas
- (23) Day before Christmas
- (24) Day before New Year's
- (25) Presidents' Day
- (26) Martin Luther King, Jr. Day
- (27) Memorial Day
- (28) Easter Sunday



New York State Department of Labor - Bureau of Public Work
State Office Building Campus
Building 12 - Room 130
Albany, New York 12240

REQUEST FOR WAGE AND SUPPLEMENT INFORMATION

As Required by Articles 8 and 9 of the NYS Labor Law

Fax (518) 485-1870 or mail this form for new schedules or for determination for additional occupations.

This Form Must Be Typed

Submitted By:

(Check Only One)

☐

Contracting Agency

☐

Architect or Engineering Firm

☐

Public Work District Office

Date:

A. Public Work Contract to be let by: (Enter Data Pertaining to Contracting/Public Agency)

1. Name and complete address ☐ (Check if new or change)

Telephone: ()

Fax: ()

E-Mail:

2. NY State Units (see Item 5)

☐ 01 DOT

☐ 02 OGS

☐ 03 Dormitory Authority

☐ 04 State University
Construction Fund

☐ 05 Mental Hygiene
Facilities Corp.

☐ 06 OTHER N.Y. STATE UNIT

☐ 07 City

☐ 08 Local School District

☐ 09 Special Local District, i.e.,
Fire, Sewer, Water District

☐ 10 Village

☐ 11 Town

☐ 12 County

☐ 13 Other Non-N.Y. State
(Describe)

3. SEND REPLY TO ☐ (check if new or change)
Name and complete address:

Telephone:()

Fax: ()

E-Mail:

4. SERVICE REQUIRED. Check appropriate box and provide project information.

☐ New Schedule of Wages and Supplements.

APPROXIMATE BID DATE :

☐ Additional Occupation and/or Redetermination

PRC NUMBER ISSUED PREVIOUSLY FOR
THIS PROJECT :

OFFICE USE ONLY

B. PROJECT PARTICULARS

5. Project Title

Description of Work

Contract Identification Number

Note: For NYS units, the OSC Contract No.

6. Location of Project:

Location on Site

Route No/Street Address

Village or City

Town

County

7. Nature of Project - Check One:

☐ 1. New Building

☐ 2. Addition to Existing Structure

☐ 3. Heavy and Highway Construction (New and Repair)

☐ 4. New Sewer or Waterline

☐ 5. Other New Construction (Explain)

☐ 6. Other Reconstruction, Maintenance, Repair or Alteration

☐ 7. Demolition

☐ 8. Building Service Contract

8. OCCUPATION FOR PROJECT :

☐ Construction (Building, Heavy
Highway/Sewer/Water)

☐ Tunnel

☐ Residential

☐ Landscape Maintenance

☐ Elevator maintenance

☐ Exterminators, Fumigators

☐ Fire Safety Director, NYC Only

☐ Guards, Watchmen

☐ Janitors, Porters, Cleaners,
Elevator Operators

☐ Moving furniture and
equipment

☐ Trash and refuse removal

☐ Window cleaners

☐ Other (Describe)

9. Has this project been reviewed for compliance with the Wicks Law involving separate bidding?

YES ☐

NO ☐

10. Name and Title of Requester

Signature



NEW YORK STATE DEPARTMENT OF LABOR
Bureau of Public Work - Debarment List

**LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE
AWARDED ANY PUBLIC WORK CONTRACT**

Under Article 8 and Article 9 of the NYS Labor Law, a contractor, sub-contractor and/or its successor shall be debarred and ineligible to submit a bid on or be awarded any public work or public building service contract/sub-contract with the state, any municipal corporation or public body for a period of five (5) years from the date of debarment when:

- Two (2) final determinations have been rendered within any consecutive six-year (6) period determining that such contractor, sub-contractor and/or its successor has WILLFULLY failed to pay the prevailing wage and/or supplements;
- One (1) final determination involves falsification of payroll records or the kickback of wages and/or supplements.

The agency issuing the determination and providing the information, is denoted under the heading 'Fiscal Officer'. DOL = New York State Department of Labor; NYC = New York City Comptroller's Office; AG = New York State Attorney General's Office; DA = County District Attorney's Office.

Debarment Database: To search for contractors, sub-contractors and/or their successors debarred from bidding or being awarded any public work contract or subcontract under NYS Labor Law Articles 8 and 9, or under NYS Workers' Compensation Law Section 141-b, access the database at this link: <https://applications.labor.ny.gov/EDList/searchPage.do>

For inquiries where WCB is listed as the "Agency", please call 1-866-546-9322

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| AGENCY | Fiscal Officer | FEIN | EMPLOYER NAME | EMPLOYER DBA NAME | ADDRESS | DEBARMENT START DATE | DEBARMENT END DATE |
|--------|----------------|-----------|---|----------------------------------|---|----------------------|--------------------|
| DOL | DOL | *****0996 | A-1 CONSTRUCTION & RENOVATION INC | | 1973 81ST ST - SUITE A-5 BROOKLYN NY 11214 | 01/08/2015 | 01/08/2020 |
| DOL | NYC | | ABDUL KARIM | | C/O NORTH AMERICAN IRON W 1560 DECATUR STREETRIDGEWOOD NY 11385 | 05/15/2015 | 05/15/2020 |
| DOL | DOL | *****8488 | ABELCRAFT OF NEW YORK CORP | | 640 ASHFORD AVENUE ARDSLEY NY 10502 | 08/27/2013 | 08/27/2018 |
| DOL | DOL | *****4539 | ACCOMPLISHED WALL SYSTEMS INC | | 112 OSCAWANA HEIGHTS ROAD PUTNAM VALLEY NY 10542 | 08/27/2013 | 08/27/2018 |
| DOL | DOL | *****8018 | ACCURATE MECHANICAL LLC | | 9547 BUSTLETON AVENUE PHILADELPHIA PA 19115 | 02/05/2014 | 02/05/2019 |
| DOL | DOL | | ACCURATE MECHANICAL OF PHILADELPHIA LLC | | 9547 BUSTLETON AVENUE PHILADELPHIA PA 19115 | 02/05/2014 | 02/05/2019 |
| DOL | DOL | *****3344 | ACT INC | | 6409 LAND O LAKES BLVD LAND O LAKES FL 34638 | 11/10/2015 | 11/10/2020 |
| DOL | NYC | | ADRIANA SELA | C/O COLONIAL ROOFING COMPANY INC | 247 48TH STREET BROOKLYN NY 11220 | 02/05/2014 | 02/05/2019 |
| DOL | DOL | *****1687 | ADVANCED SAFETY SPRINKLER INC | | 261 MILL ROAD P O BOX 296EAST AURORA NY 14052 | 07/29/2015 | 07/29/2020 |
| DOL | NYC | *****6775 | ADVENTURE MASONRY CORP. | | 1535 RICHMOND AVENUE STATEN ISLAND NY 10314 | 12/13/2017 | 12/13/2022 |
| DOL | DOL | | AJ TORCHIA | | 10153 ROBERTS RD SAUQUOIT NY 13456 | 08/09/2016 | 08/09/2021 |
| DOL | DOL | *****3344 | ALL CATASTROPHE CONSTRUCTION TEAM INC | ACT INC | 6409 LAND O LAKES BLVD LAND O LAKES FL 34638 | 11/10/2015 | 11/10/2020 |
| DOL | DOL | *****8740 | ALLSTATE ENVIRONMENTAL CORP | | C/O JOSE MONTAS 27 BUTLER PLACEYONKERS NY 10710 | 03/18/2011 | 03/19/2020 |
| DOL | DOL | | AMADEO J TORCHIA | TORCHIA'S HOME IMPROVEMENT | 10153 ROBERTS RD SAUQUOIT NY 13456 | 08/09/2016 | 08/09/2021 |
| DOL | NYC | | ANISUL ISLAM | | C/O RELIANCE GENERAL CONS 644 OCEAN PARKWAYBROOKLYN NY 11230 | 09/02/2015 | 09/02/2020 |
| DOL | DOL | *****7004 | ANNEX CONTRACTING LTD | | 3005 WYNSUM AVENUE MERRICK NY 11566 | 08/18/2014 | 08/18/2019 |
| DOL | DOL | *****7004 | ANNEX GENERAL CONTRACTING INC | | 3005 WYNSUM AVENUE MERRICK NY 11566 | 08/18/2014 | 08/18/2019 |
| DOL | DA | | ANTHONY CARDINALE | | 58-48 59TH STREET MASPETH NY 11378 | 05/16/2012 | 05/08/2020 |
| DOL | DOL | | ANTHONY J MINGARELLI JR | | C/O T & T CONCRETE INC 2560 HAMBURG TURNPIKELACKAWANNA NY 14218 | 07/08/2015 | 07/08/2020 |
| DOL | DOL | | ANTHONY PERGOLA | | 3 WEST MAIN ST/SUITE 208 ELMSFORD NY 10323 | 01/23/2017 | 01/23/2022 |
| DOL | DOL | | ANTONIO ESTIVEZ | | 442 ARMONK RD MOUNT KISCO NY 10549 | 06/12/2018 | 06/12/2023 |
| DOL | DOL | *****3020 | APCO CONTRACTING CORP | | 24 SOUTH MARYLAND AVENUE PORT WASHINGTON NY 11050 | 09/24/2012 | 09/02/2020 |
| DOL | DOL | *****3219 | APOLLO CONSTRUCTION SERVICES CORP | APOLLO PAINTING CO | 157 TIBBETTS ROAD YONKERS NY 10705 | 03/12/2014 | 03/12/2019 |
| DOL | DOL | | APOLLO PAINTING CO | | 157 TIBBETTS ROAD YONKERS NY 10705 | 03/12/2014 | 03/12/2019 |
| DOL | DOL | *****3295 | APOLLO PAINTING CORP | | 3 ALAN B SHEPART PLACE YONKERS NY 10705 | 03/12/2014 | 03/12/2019 |
| DOL | AG | *****0194 | APPLIED CONSTRUCTION INC | | 46 RUGBY ROAD WESTBURY NY 11590 | 11/20/2013 | 11/20/2018 |
| DOL | NYC | *****8403 | AQUA JET PAINTING CORP | | 10 VIKING DRIVE WEST ISLIP NY 11795 | 04/16/2014 | 04/16/2019 |
| DOL | NYC | *****9232 | ARKAY CONSTRUCTION INC | | 102-104 GREYLOCK AVENUE BELLEVILLE NJ 07109 | 07/15/2015 | 07/15/2020 |
| DOL | DOL | *****3953 | ASCAPE LANDSCAPE & CONSTRUCTION CORP | | 634 ROUTE 303 BLAUVELT NY 10913 | 07/26/2012 | 11/19/2018 |
| DOL | NYC | *****4779 | ASTORIA GENERAL CONTRACTING CORP | | 35-34 31ST STREET LONG ISLAND CITY NY 11106 | 09/02/2015 | 09/02/2020 |
| DOL | NYC | *****7217 | ASTRO COMMUNICATIONS OF NY CORP | | 79 ALEXANDER AVE- STE 36A BRONX NY 10454 | 10/30/2015 | 10/30/2020 |

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| DOL | NYC | *****6046 | ATLANTIC SUN CONSTRUCTION CORP | | 58-46 59TH AVENUE MASPETH NY 11378 | 05/08/2015 | 05/08/2020 |
| DOL | NYC | *****6683 | ATLAS RESTORATION CORP. | | 35-12 19TH AVENUE ASTORIA NY 11105 | 08/02/2017 | 08/02/2022 |
| DOL | NYC | | AUDLEY O'BRIEN | | 1273 NORTH AVENUE/#1 CP NEW ROCHELLE NY 10804 | 04/07/2015 | 04/07/2020 |
| DOL | DOL | | AVIS R HILL | | 3510 HICKORY WALK LANE ELLENWOOD GA 32094 | 01/22/2015 | 01/22/2020 |
| DOL | AG | | AVTAR SINGH | | 116-24 127TH STREET SOUTH OZONE PARK NY 11420 | 12/22/2015 | 12/22/2020 |
| DOL | AG | | BALDEV SINGH | | 116-24 127TH STREET SOUTH OZONE PARK NY 11420 | 12/22/2015 | 12/22/2020 |
| DOL | DOL | | BARBARA CASSIDY | | 7 BLENIS PLACE VALHALLA NY 10595 | 04/02/2015 | 04/02/2020 |
| DOL | DOL | | BARRY KINNEY | | 6409 LAND O LAKES BLVD LAND O LAKES FL 34638 | 11/10/2015 | 11/10/2020 |
| DOL | NYC | *****3915 | BEACON RESTORATION INC | | SUITE B-8 782 PELHAM PARKWAY SOUTHBRONX NY 10462 | 04/21/2016 | 04/21/2021 |
| DOL | DOL | | BEVERLY F WILLIAMS | | 1238 PRESIDENT STREET BROOKLYN NY 11225 | 11/18/2013 | 11/18/2018 |
| DOL | DOL | | BIAGIO CANTISANI | | | 06/12/2018 | 06/12/2023 |
| DOL | DOL | *****4512 | BOB BRUNO EXCAVATING, INC. | | 5 MORNINGSIDE DRIVE AUBURN NY 13021 | 11/15/2016 | 11/15/2021 |
| DOL | DOL | *****4512 | BOB BRUNO EXCAVATING, INC. | | 5 MORNINGSIDE DRIVE AUBURN NY 13021 | 11/15/2016 | 11/15/2021 |
| DOL | DOL | *****8551 | BRANDY'S MASONRY | | 216 WESTBROOK STREET P O BOX 304SAYRE PA 18840 | 08/09/2016 | 08/09/2021 |
| DOL | NYC | *****6555 | BROOKLYN WELDING CORP | | 1273 NORTH AVENUE/ #1 CP NEW ROCHELLE NY 10804 | 04/07/2015 | 04/07/2020 |
| DOL | DOL | *****1449 | BRRESTORATION NY INC | | 140 ARCADIA AVENUE OSWEGO NY 13126 | 09/12/2016 | 09/12/2021 |
| DOL | DOL | | BRUCE MORSEY | | C/O KENT HOLLOW SIDING LL 29A BRIDGE STREETNEW MILFORD CT 06776 | 01/15/2016 | 01/15/2021 |
| DOL | DOL | *****6156 | C & J LANDSCAPING & MAINTENANCE INC | | 520 PINE HILL ROAD CHESTER NY 10940 | 06/23/2014 | 06/23/2019 |
| DOL | DOL | *****8809 | C.B.E. CONTRACTING CORPORATION | | 310 MCGUINNESS BLVD GREENPOINT NY 11222 | 03/07/2017 | 03/07/2022 |
| DOL | DOL | | CANTISANI & ASSOCIATES LTD | | 442 ARMONK RD MOUNT KISCO NY 10549 | 06/12/2018 | 06/12/2023 |
| DOL | DOL | | CANTISANI HOLDING LLC | | | 06/12/2018 | 06/12/2023 |
| DOL | DOL | | CARIBBEAN POOLS | | C/O DOUGLAS L MALARKEY 64 VICTORIA DRIVEBINGHAMTON NY 13904 | 02/04/2016 | 02/04/2021 |
| DOL | DOL | *****3812 | CARMODY "2" INC | | | 06/12/2018 | 06/12/2023 |
| DOL | DOL | *****1143 | CARMODY BUILDING CORP | CARMODY CONTRACTIN G AND CARMODY CONTRACTIN G CORP. | 442 ARMONK RD MOUNT KISCO NY 10549 | 06/12/2018 | 06/12/2023 |
| DOL | DOL | | CARMODY CONCRETE CORPORATION | | | 06/12/2018 | 06/12/2023 |
| DOL | DOL | | CARMODY ENTERPRISES, LTD. | | 442 ARMONK RD MOUNT KISCO NY 10549 | 06/12/2018 | 06/12/2023 |
| DOL | DOL | | CARMODY INC | | 442 ARMONK RD MOUNT KISCO NY 10549 | 06/12/2018 | 06/12/2023 |
| DOL | DOL | *****3812 | CARMODY INDUSTRIES INC | | | 06/12/2018 | 06/12/2023 |
| DOL | DOL | | CARMODY MAINTENANCE CORPORATION | | 442 ARMONK RD MOUNT KISCO NY 10549 | 06/12/2018 | 06/12/2023 |
| DOL | DOL | | CARMODY MASONRY CORP | | 442 ARMONK RD MOUNT KISCO NY 10549 | 06/12/2018 | 06/12/2023 |
| DOL | NYC | *****9172 | CASSIDY EXCAVATING INC | | 14 RAILROAD AVENUE VALHALLA NY 10595 | 05/15/2014 | 04/02/2020 |
| DOL | DOL | *****6745 | CATSKILL FENCE INSTALLATIONS INC | | 5445 ROUTE 32 CATSKILL NY 12414 | 08/22/2014 | 08/22/2019 |
| DOL | DOL | *****8530 | CAZ CONTRACTING CORP | | 37-11 35TH AVENUE LONG ISLAND CITY NY 11101 | 08/26/2013 | 08/26/2018 |
| DOL | DOL | *****8809 | CBE CONTRACTING CORP | | 142 EAST MARKET STREET LONG BEACH NY 11561 | 03/07/2017 | 03/07/2022 |

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| DOL | AG | | CESAR J. AGUDELO | | 81-06 34TH AVENUE APT. 6EJACKSON HEIGHTS NY 11372 | 02/07/2018 | 02/07/2023 |
| DOL | DOL | *****7655 | CHAMPION CONSTRUCTION SERVICES CORP | | 2131 SCHENECTADY AVENUE BROOKLYN NY 11234 | 11/18/2015 | 11/18/2020 |
| DOL | NYC | | CHARLES CASSIDY JR | | 14 RAILROAD AVENUE VALHALLA NY 10595 | 05/15/2014 | 04/02/2020 |
| DOL | DOL | | CHARLES ZIMMER JR | | 216 WESTBROOK STREET P O BOX 304SAYRE PA 18840 | 08/09/2016 | 08/09/2021 |
| DOL | DOL | | CHRISTINE J HEARNE | | C/O CJ-HEARNE CONSTRUCTIO 131 PONCE DE LEON AVE NEATLANTA GA 30308 | 12/01/2015 | 12/01/2020 |
| DOL | DOL | *****3360 | CITY LIMITS GROUP INC | | 2279 HOLLERS AVENUE BRONX NY 10475 | 01/07/2014 | 06/23/2019 |
| DOL | DOL | *****0671 | CJ-HEARNE CONSTRUCTION CO | | SUITE 204 131 PONCE DE LEON AVENUEATLANTA GA 30308 | 12/01/2015 | 12/01/2020 |
| DOL | NYC | *****2905 | COLONIAL ROOFING COMPANY INC | | 247 48TH STREET BROOKLYN NY 11220 | 02/05/2014 | 02/05/2019 |
| DOL | NYC | *****3182 | COLORTECH INC | | 5990 58TH AVENUE MASPETH NY 11378 | 11/18/2013 | 11/18/2018 |
| DOL | DOL | *****2703 | CONKLIN'S TECH- MECHANICAL INC | | 5 PARKER AVENUE POUGHKEEPSIE NY 12601 | 03/25/2014 | 03/25/2019 |
| DOL | DOL | | CONSTANTINOS ZERVAS | | 37-11 35TH AVENUE LONG ISLAND CITY NY 11101 | 08/26/2013 | 08/26/2018 |
| DOL | NYC | *****4468 | CRAFT CONTRACTING GROUP INC | | 3256 BRUNER AVENUE BRONX NY 10469 | 07/29/2014 | 07/29/2019 |
| DOL | NYC | *****8507 | CRAFT FENCE INC | | 3256 BRUNER AVENUE BRONX NY 10469 | 07/29/2014 | 07/29/2019 |
| DOL | NYC | *****2164 | CREATIVE TRUCKING INC | | 58-83 54TH STREET MASPETH NY 11378 | 02/26/2016 | 02/26/2021 |
| DOL | DOL | *****7761 | D L MALARKEY CONSTRUCTION | | 64 VICTORIA DRIVE BINGHAMTON NY 13904 | 02/04/2016 | 02/04/2021 |
| DOL | DOL | *****7888 | D L MALARKEY CONSTRUCTION INC | | 64 VICTORIA DRIVE BINGHAMTON NY 13904 | 02/04/2016 | 02/04/2021 |
| DOL | DOL | *****5629 | DAKA PLUMBING AND HEATING LLC | | 2561 ROUTE 55 POUGHQUAG NY 12570 | 02/19/2016 | 02/19/2021 |
| DOL | DOL | | DANICA IVANOSKI | | 61 WILLETT ST. PASSAIC NJ 07503 | 10/26/2016 | 10/26/2021 |
| DOL | DOL | | DARYL T RIEKS | | C/O RIEKS CONTRACTING LLC 4804 GAHWILER ROADAUBURN NY 13021 | 05/01/2015 | 05/01/2020 |
| DOL | NYC | *****7707 | DASSLE CONTRACTING INC | | 213-37 39TH AVE/SUITE 120 BAYSIDE NY 11360 | 05/08/2015 | 05/08/2020 |
| DOL | DOL | | DAVID MARTINEZ | | C/O EMPIRE TILE INC 6 TREMONT COURTHUNTINGTON STATION NY 11746 | 03/08/2016 | 03/08/2021 |
| DOL | NYC | | DAWN AVILA AKA DAWN BECHTOLD | | 1ST FLOOR STORE FRONT 88-10 LITTLE NECK PARKWAYFLORAL PARK NY 11001 | 06/24/2014 | 06/24/2019 |
| DOL | NYC | | DAWN BECHTOLD AKA DAWN AVILA | | 1ST FLOOR STORE FRONT 88-10 LITTLE NECK PARKWAYFLORAL PARK NY 11001 | 06/24/2014 | 06/24/2019 |
| DOL | DOL | | DEAN ROBBINS III | | 212 OXFORD WAY SCHENECTADY NY 12309 | 12/11/2012 | 09/16/2018 |
| DOL | DOL | | DEBBIE STURDEVANT | | 29 MAPLEWOOD DRIVE BINGHAMTON NY 13901 | 02/21/2017 | 02/21/2022 |
| DOL | AG | | DEBRA MARTINEZ | | 31 BAY ST BROOKLYN NY 11231 | 03/28/2018 | 03/28/2023 |
| DOL | NYC | *****3865 | DECOMA BUILDING CORPORATION | | 134 EVERGREEN PL/STE 101 EAST ORANGE NJ 07018 | 12/30/2013 | 12/30/2018 |
| DOL | DOL | | DEDA GAZIVODAN | | C/O DAKA PLUMBING AND H 2561 ROUTE 55POUGHQUAG NY 12570 | 02/19/2016 | 02/19/2021 |
| DOL | DOL | *****1446 | DELTA CONTRACTING PAINTING AND DECORATING INC | | 437 SUNRISE HIGHWAY WEST BABYLON NY 11707 | 08/12/2013 | 08/12/2018 |
| DOL | DOL | *****3538 | DELTA CONTRACTING PAINTING AND DESIGN INC | | 75 MCCULLOCH DRIVE DIX HILLS NY 11746 | 10/19/2010 | 08/12/2018 |
| DOL | DOL | | DENNIS SCHWANDTNER | | C/O YES SERVICE AND REPAI 145 LODGE AVEHUNTINGTON STATION NY 11476 | 08/09/2016 | 08/09/2021 |
| DOL | DOL | *****9868 | DESANTIS ENTERPRISES | | 161 OSWEGO RIVER ROAD PHOENIX NY 13135 | 09/24/2013 | 11/18/2018 |

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| DOL | DOL | | DF CONTRACTORS OF ROCHESTER, INC. | | 1835 DAANSEN RD. PALMYRA NY 14522 | 05/16/2017 | 05/16/2022 |
| DOL | DOL | | DF CONTRACTORS, INC. | | 1835 DAANSEN RD. PALMYRA NY 14522 | 05/16/2017 | 05/16/2022 |
| DOL | DOL | *****9252 | DI BERNARDO TILE AND MARBLE CO INC | | 15 WALKER WAY ALBANY NY 12205 | 03/21/2014 | 03/21/2019 |
| DOL | NYC | | DIMITRIOS KOUTSOUKOS | | C/O ASTORIA GENERAL CONTR 35-34 31ST STREETLONG ISLAND CITY NY 11106 | 09/02/2015 | 09/02/2020 |
| DOL | NYC | | DIMITRIOS TSOUMAS | | 35-12 19TH AVENUE ASTORIA NY 11105 | 08/02/2017 | 08/02/2022 |
| DOL | DOL | *****3242 | DONALD R. FORSAY | DF LAWN SERVICE | 1835 DAANSEN RD. PALMYRA NY 14522 | 05/16/2017 | 05/16/2022 |
| DOL | DOL | | DONALD R. FORSAY | | 1835 DAANSEN RD. PALMYRA NY 14522 | 05/16/2017 | 05/16/2022 |
| DOL | DOL | | DORIS SKODA | | C/O APCO CONTRACTING CORP 24 SOUTH MARYLAND AVENUEPORT WASHINGTON NY 11050 | 09/24/2012 | 09/02/2020 |
| DOL | NYC | *****7404 | DOSANJH CONSTRUCTION CORP | | 9439 212TH STREET QUEENS VILLAGE NY 11428 | 02/25/2016 | 02/25/2021 |
| DOL | DOL | | DOUGLAS L MALARKEY | MALARKEY CONSTRUCTION | 64 VICTORIA DRIVE B INGHAMTON NY 13904 | 02/04/2016 | 02/04/2021 |
| DOL | DOL | *****6982 | DUFOUR GROUP INC | DUFOUR MASONRY | 353 WEST 56TH STREET #7M NEW YORK NY 10019 | 06/10/2014 | 06/10/2019 |
| DOL | DOL | | DUFOUR MASONRY | | 353 WEST 56TH ST #7M NEW YORK NY 10019 | 06/10/2014 | 06/10/2019 |
| DOL | DOL | | DUFOUR MASONRY & RESTORATION INC | | 353 WEST 56TH STREET #7M NEW YORK NY 10019 | 06/10/2014 | 06/10/2019 |
| DOL | DOL | *****5840 | DYNA CONTRACTING INC | | 363 88TH STREET BROOKLYN NY 11209 | 11/18/2013 | 11/18/2018 |
| DOL | DOL | | E C WEBB | | 6409 LAND O LAKES BLVD LAND O LAKES FL 34638 | 11/10/2015 | 11/10/2020 |
| DOL | DOL | | EARL GALBREATH | | 640 ASHFORD AVENUE ARDSLEY NY 10502 | 08/27/2013 | 08/27/2018 |
| DOL | DOL | | EARL L WILSON | WILSON BROTHER DRYWALL CONTRACTORS | 36 ABERSOLD STREET ROCHESTER NY 14621 | 08/31/2015 | 08/31/2020 |
| DOL | DOL | *****1496 | EAST COAST DRYWALL INC | | 1238 PRESIDENT STREET BROOKLYN NY 11225 | 11/18/2013 | 11/18/2018 |
| DOL | DOL | | EAST COAST PAVING | | 2238 BAKER RD GILLET PA 16923 | 03/12/2018 | 03/12/2023 |
| DOL | NYC | | EDWARD MENKEN | | C/O AQUA JET PAINTING 10 VIKING DRIVEWEST ISLIP NY 11795 | 04/16/2014 | 04/16/2019 |
| DOL | NYC | *****0900 | EF PRO CONTRACTING INC | | 147 BROOME AVENUE ATLANTIC BEACH NY 11509 | 03/03/2014 | 03/03/2019 |
| DOL | NYC | | EFSTRATIOS BERNARDIS | | 23-73 48TH STREET LONG ISLAND CITY NY 11103 | 04/24/2014 | 04/24/2019 |
| DOL | DOL | | ELIZABETH RAMADANI | | C/O RAMADA CONSTRUCTION 80 SAVO LOOPSTATEN ISLAND NY 10309 | 01/07/2014 | 01/07/2019 |
| DOL | DOL | | ELLEN DESANTIS | DESANTIS ENTERPRISES | 161 OSWEGO RIVER ROAD PHOENIX NY 13135 | 09/24/2013 | 11/18/2018 |
| DOL | DOL | *****0780 | EMES HEATING & PLUMBING CONTR | | 5 EMES LANE MONSEY NY 10952 | 01/20/2002 | 01/20/3002 |
| DOL | AG | | EMILIO FRANZA | | 90 JUNIUS STREET BROOKLYN NY 11212 | 01/23/2014 | 01/23/2019 |
| DOL | DOL | | EMPIRE CONCRETE SERVICES LLC | | 101 SULLYS TRAIL/SUITE 20 PITTSFORD NY 14534 | 11/18/2013 | 01/07/2019 |
| DOL | DOL | *****0511 | EMPIRE CONCRETE SYSTEMS LLC | | 101 SULLYS TRAIL/ SUITE 2 PITTSFORD NY 14534 | 11/18/2013 | 01/07/2019 |
| DOL | DOL | *****2353 | EMPIRE CONSTRUCTORS LLC | | 101 SULLYS TRAIL/SUITE 20 PITTSFORD NY 14534 | 11/18/2013 | 01/07/2019 |
| DOL | DOL | | EMPIRE PRECAST LLC | | 101 SULLYS TRAIL/SUITE 20 PITTSFORD NY 14534 | 11/18/2013 | 01/07/2019 |
| DOL | DOL | *****3270 | EMPIRE TILE INC | | 6 TREMONT COURT HUNTINGTON STATION NY 11746 | 03/08/2016 | 03/08/2021 |
| DOL | NYC | | EVERTON CARLESS | | 134 EVERGREEN PL/STE 101 EAST ORANGE NJ 07018 | 12/30/2013 | 12/30/2018 |
| DOL | DOL | *****7403 | F & B PAINTING CONTRACTING INC | | 2 PARKVIEW AVENUE HARRISON NY 10604 | 09/26/2016 | 09/26/2021 |

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| DOL | DOL | | F KALAFATIS | | 2279 HOLLERS AVENUE BRONX NY 10475 | 01/07/2014 | 06/23/2019 |
| DOL | DOL | | FANTASTIC PAINTING | | 493 LANSING ROAD FULTONVILLE NY 12072 | 11/18/2013 | 11/18/2018 |
| DOL | DOL | | FAY MATTHEW | | C/O CHAMPION CONSTRUCTION 2131 SCHENECTADY AVENUE BROOKLYN NY 11234 | 11/18/2015 | 11/18/2020 |
| DOL | DOL | | FAZIA GINA ALI-MOHAMMED | C/O CHAMPION CONSTRUCTI ON | 2131 SCHENECTADY AVENUE BROOKLYN NY 11234 | 11/18/2015 | 11/18/2020 |
| DOL | DOL | *****1311 | FLOZ-ON PAINTING & DECORATING INC | | 12 DUNDERBERG ROAD TOMKINS NY 10986 | 10/16/2013 | 10/16/2018 |
| DOL | DOL | *****8961 | FLOZ-ON PAINTING INC | | 12 DUNDERBERG ROAD TOMKINS NY 10986 | 10/16/2013 | 10/16/2018 |
| DOL | DOL | | FRAN MICELI | | 2279 HOLLERS AVENUE BRONX NY 10475 | 01/07/2014 | 06/23/2019 |
| DOL | DOL | | FRANCES KALAFATIS | | 2279 HOLLERS AVENUE BRONX NY 10475 | 01/07/2014 | 06/23/2019 |
| DOL | DOL | | FRANCES KALAFATIS-MICELI | | 2279 HOLLERS AVENUE BRONX NY 10475 | 01/07/2014 | 06/23/2019 |
| DOL | DOL | | FRANK BENEDETTO | | C/O F & B PAINTING CONTRA 2 PARKVIEW AVENUE HARRISON NY 10604 | 09/26/2016 | 09/26/2021 |
| DOL | DOL | | FRANK DEMARTINO | | 101-61 99TH STREET OZONE PARK NY 11416 | 02/15/2017 | 02/15/2022 |
| DOL | DOL | | FRANK DEMARTINO | | 101-61 99TH STREET OZONE PARK NY 11416 | 02/15/2017 | 02/15/2022 |
| DOL | DOL | | FRANK J MERCANDO | | 134 MURRAY AVENUE YONKERS NY 10704 | 12/11/2009 | 02/03/2019 |
| DOL | DOL | | FRANK MICELI JR | C/O FRANK MICELI JR CONTRACTIN G INC | 19 CLIFF STREET NEW ROCHELLE NY 10801 | 10/16/2013 | 10/16/2018 |
| DOL | DOL | *****1321 | FRANK MICELI JR CONTRACTING INC | | 19 CLIFF STREET NEW ROCHELLE NY 10801 | 10/16/2013 | 10/16/2018 |
| DOL | DOL | *****2724 | FRESH START PAINTING CORP | | 157 TIBBETS ROAD YONKERS NY 10705 | 03/12/2014 | 03/12/2019 |
| DOL | DOL | | G FUCCI CONSTRUCTION SERVICES | | 3 ALAN B SHEPARD PLACE YONKERS NY 10705 | 03/12/2014 | 03/12/2019 |
| DOL | DOL | *****6767 | G FUCCI PAINTING INC | | C/O SPIEGEL & UTRERA 1 MAIDEN LANE - 5TH FL NEW YORK NY 10038 | 03/12/2014 | 03/12/2019 |
| DOL | DOL | *****4546 | GAF PAINTING LLC | | 157 TIBBETS ROAD YONKERS NY 10705 | 03/12/2014 | 03/12/2019 |
| DOL | DOL | | GALINDA ROTENBERG | | C/O GMDV TRANS INC 67-48 182ND STREET FRESH MEADOWS NY 11365 | 06/24/2016 | 06/24/2021 |
| DOL | DOL | | GARDEN STATE PAINTING | | 157 TIBBETTS ROAD YONKERS NY 10705 | 03/12/2014 | 03/12/2019 |
| DOL | DOL | | GEORGE DI BERNARDO | | C/O DI BERNARDO TILE 15 WALKER WAY ALBANY NY 12205 | 03/21/2014 | 03/21/2019 |
| DOL | DA | | GEORGE LUCEY | | 150 KINGS STREET BROOKLYN NY 11231 | 01/19/1998 | 01/19/2998 |
| DOL | DOL | *****5674 | GMDV TRANS INC | | 67-48 182ND STREET FRESH MEADOWS NY 11365 | 06/24/2016 | 06/24/2021 |
| DOL | DOL | *****0090 | GOLDS FLOORING INSTALLATIONS INC | | 25 HAMILTON ROAD MONTICELLO NY 12701 | 10/16/2013 | 10/16/2018 |
| DOL | DOL | | GREGORY A FUCCI | | C/O PAF PAINTING SERVICES 157 TIBBETTS ROAD YONKERS NY 10705 | 03/12/2014 | 03/12/2019 |
| DOL | DOL | | GREGORY FUCCI JR | | C/O APOLLO CONSTRUCTION 157 TIBBETTS ROAD YONKERS NY 10705 | 03/12/2014 | 03/12/2019 |
| DOL | DOL | | GREGORY S. OLSON | | P.O BOX 100 200 LATTA BROOK PARK HORSEHEADS NY 14845 | 03/08/2018 | 03/08/2023 |
| DOL | NYC | *****0346 | H N H CONTRACTORS CORP | | 4558 BROADWAY # 6 NEW YORK NY 10040 | 08/04/2014 | 08/04/2019 |
| DOL | DOL | | HALSSAM FOSTOK | | 5 HANSEN PLACE WAYNE NJ 07470 | 09/18/2013 | 09/18/2018 |
| DOL | NYC | | HAMEEDUL HASAN | | 240 HOME STREET TEANECK NJ 07666 | 08/04/2014 | 08/04/2019 |
| DOL | AG | *****9918 | HARA ELECTRIC CORP | | 2461 47TH STREET ASTORIA NY 11103 | 09/26/2013 | 09/26/2018 |
| DOL | NYC | | HARMEL SINGH | | 15 CLINTON LANE HICKSVILLE NY 11801 | 02/25/2016 | 02/25/2021 |

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| DOL | NYC | | HAROLD KUEMMEL | | 58-83 54TH STREET MASPETH NY 11378 | 02/26/2016 | 02/26/2021 |
| DOL | AG | | HARVINDER SINGH PAUL | | 90 JUNIUS STREET BROOKLYN NY 11212 | 01/23/2014 | 01/23/2019 |
| DOL | DOL | | HENRY VAN DALRYMPLE | | 2663 LANTERN LANE ATLANTA GA 30349 | 12/01/2015 | 12/01/2020 |
| DOL | DOL | *****6370 | HILLIANO CONSTRUCTION & ELECTRICAL INC | | 354 MAGNOLIA STREET ROCHESTER NY 14611 | 01/22/2015 | 01/22/2020 |
| DOL | DOL | *****8282 | IDEMA DEVELOPMENT INC | | 91 COLLEGE AVENUE POUGHKEEPSIE NY 12603 | 12/04/2015 | 12/04/2020 |
| DOL | DOL | *****8282 | IDEMA GENERAL CONTRACTORS INC | | 91 COLLEGE AVENUE POUGHKEEPSIE NY 12603 | 12/04/2015 | 12/04/2020 |
| DOL | DOL | *****7001 | INTEGRATED CONSTRUCTION & POWER SYSTEMS INC | | SUITE 100 2105 W GENESEE STREETS YRACUSE NY 13219 | 01/06/2016 | 01/06/2021 |
| DOL | AG | | J A M CONSTRUCTION CORP | | SUITE 125 265 SUNRISE HIGHWAY ROCKVILLE CENTRE NY 10457 | 04/07/2016 | 04/07/2021 |
| DOL | DOL | *****7598 | J M RICH LLC | | P O BOX 268 STILLWATER NY 12170 | 09/16/2013 | 03/21/2019 |
| DOL | DOL | *****3478 | J N P CONSTRUCTION CORP | | 50 LOUIS COURT P O BOX 1907 SOUTH HACKENSACK NY 07606 | 03/21/2014 | 03/21/2019 |
| DOL | DOL | | J N RICH LLC | | P O BOX 268 STILLWATER NY 12170 | 09/16/2013 | 03/21/2019 |
| DOL | DOL | *****4910 | J V MAGIC TOUCH CORPORATION | | 94-25 57TH AVENUE, APT 5G ELMHURST NY 11373 | 01/12/2015 | 01/12/2020 |
| DOL | DOL | | J.A. HIRES CADWALLADER | | P.O BOX 100 200 LATTABROOK PARK HORSEHEADS NY 14845 | 03/08/2018 | 03/08/2023 |
| DOL | DOL | | JACQUELINE HOWE | | C/O FLOZ-ON PAINTING INC 12 DUNDERBERG ROAD TOMKINS NY 10986 | 10/16/2013 | 10/16/2018 |
| DOL | DOL | *****8627 | JAG I LLC | | 635 LUZERNE ROAD QUEENSBURY NY 12804 | 09/16/2013 | 09/16/2018 |
| DOL | DOL | *****2868 | JAG INDUSTRIES INC | | 175 BROAD ST - SUITE 320 GLENS FALLS NY 12801 | 09/16/2013 | 09/16/2018 |
| DOL | DOL | | JAMES B RHYNDERS | | 91 COLLEGE AVENUE POUGHKEEPSIE NY 12603 | 12/04/2015 | 12/04/2020 |
| DOL | DOL | | JAMES BOYCE | | C/O EMPIRE CONCRETE SYST 101 SULLYS TRAIL/SUITE 20 PITTSFORD NY 14534 | 11/18/2013 | 01/07/2019 |
| DOL | DOL | | JAMES E RHYNDERS | | 91 COLLEGE AVENUE POUGHKEEPSIE NY 12603 | 12/04/2015 | 12/04/2020 |
| DOL | AG | | JAMES FALCONE | | SUITE 125 265 SUNRISE HIGHWAY ROCKVILLE CENTRE NY 10457 | 04/07/2016 | 04/07/2021 |
| DOL | DOL | | JAMES RHYNDERS SR | | 91 COLLEGE AVENUE POUGHKEEPSIE NY 12603 | 12/04/2015 | 12/04/2020 |
| DOL | DOL | | JAMES SICKAU | | 3090 SHIRLEY ROAD NORTH COLLINS NY 14111 | 04/19/2011 | 07/08/2020 |
| DOL | DOL | | JASON M RICH | | P O BOX 268 STILLWATER NY 12170 | 09/16/2013 | 03/21/2019 |
| DOL | DOL | | JASON W MILLIMAN | | C/O ROCHESTER ACOUSTICAL P O BOX 799 HILTON NY 14468 | 02/19/2016 | 02/19/2021 |
| DOL | DOL | | JEFF P BRADLEY | | 520 PINE HILL ROAD CHESTER NY 10940 | 06/23/2014 | 06/23/2019 |
| DOL | NYC | | JEFFREY CASSIDY | | 14 RAILROAD AVENUE VALHALLA NY 10595 | 05/15/2014 | 04/02/2020 |
| DOL | DOL | | JERALD HOWE | | C/O FLOZ-ON PAINTING INC 12 DUNDERBERG ROAD TOMKINS NY 10986 | 10/16/2013 | 10/16/2018 |
| DOL | DOL | | JEROME LACITIGNOLA | | C/O CATSKILL FENCE INSTAL 5445 ROUTE 32 CATSKILL NY 12414 | 08/22/2014 | 08/22/2019 |
| DOL | DOL | | JESSICA WHITESIDE | | C/O BR RESTORATION NY INC 140 ARCADIA AVENUE OSWEGO NY 13126 | 09/12/2016 | 09/12/2021 |
| DOL | AG | | JOHN ANTHONY MASSINO | | 36-49 204TH STREET BAYSIDE NY 11372 | 02/07/2018 | 02/07/2023 |
| DOL | DOL | | JOHN DESCUL | | 437 SUNRISE HIGHWAY A WEST BABYLON NY 11704 | 08/12/2013 | 08/12/2018 |
| DOL | DOL | | JOHN F. CADWALLADER | | 200 LATTABROOK PARK HORSEHEADS NY 14845 | 03/08/2018 | 03/08/2023 |

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| DOL | DOL | *****4612 | JOHN F. CADWALLADER, INC. | THE GLASS COMPANY | P O BOX 100 200 LATTA BROOK PARKHORSEHEADS NY 14845 | 03/08/2018 | 03/08/2023 |
| DOL | AG | *****0600 | JOHNCO CONTRACTING, INC. | | 36-49 204TH STREET BAYSIDE NY 11372 | 02/07/2018 | 02/07/2023 |
| DOL | DOL | | JON E DEYOUNG | | 261 MILL ROAD P O BOX 296EAST AURORA NY 14052 | 07/29/2015 | 07/29/2020 |
| DOL | DOL | | JORGE VILLALOBOS | | 94-25 57TH AVENUE - APT 5 ELMHURST NY 11373 | 01/12/2015 | 01/12/2020 |
| DOL | DOL | | JOSE MONTAS | | 27 BUTLER PLACE YONKERS NY 10710 | 03/18/2011 | 03/19/2020 |
| DOL | AG | | JOSEPH FALCONE | | SUITE 125 265 SUNRISE HIGHWAYROCKVILLE CENTRE NY 10457 | 04/07/2016 | 04/07/2021 |
| DOL | DOL | *****9273 | JOSEPH M LOVETRO | | P O BOX 812 BUFFALO NY 14220 | 08/09/2016 | 08/09/2021 |
| DOL | NYC | | JOSEPH MARTINO | | 1535 RICHMOND AVENUE STATEN ISLAND NY 10314 | 12/13/2017 | 12/13/2022 |
| DOL | DOL | | JOSEPH MARTONE | | 112 OSCAWANA HEIGHTS ROAD PUTNAM VALLEY NY 10542 | 08/27/2013 | 08/27/2018 |
| DOL | DOL | | JOSHUA DEBOWSKY | | 9547 BUSTLETON AVENUE PHILADELPHIA PA 19115 | 02/05/2014 | 02/05/2019 |
| DOL | DOL | | JOYA MUSCOLINO | | 10 ST CHARLES STREET THORNWOOD NY 10594 | 09/03/2013 | 09/03/2018 |
| DOL | DOL | | JUANA MARTINEZ | | C/O LEAD CONSTRUCTION 27 BUTLER PLACEYONKERS NY 10710 | 03/19/2015 | 03/19/2020 |
| DOL | DOL | *****4340 | JUBCO SITE DEVELOPMENT LLC | | 462 LAKEVIEW AVENUE VALHALLA NY 10595 | 12/16/2013 | 12/16/2018 |
| DOL | DOL | | JULIUS AND GITA BEHREND | | 5 EMES LANE MONSEY NY 10952 | 11/20/2002 | 11/20/3002 |
| DOL | DOL | *****5062 | K R F SITE DEVELOPMENT INC | | 375 LAKE SHORE DRIVE PUTNAM VALLEY NY 10579 | 01/23/2017 | 01/23/2022 |
| DOL | NYC | | KATHLEEN SELA | C/O COLONIAL ROOFING COMPANY INC | 247 48TH STREET BROOKLYN NY 11220 | 02/05/2014 | 02/05/2019 |
| DOL | DOL | | KATIE BURDICK | | 2238 BAKER RD GILLET PA 16923 | 03/12/2018 | 03/12/2023 |
| DOL | DOL | | KENNETH FIORENTINO | | 375 LAKE SHORE DRIVE PUTNAM VALLEY NY 10579 | 01/23/2017 | 01/23/2022 |
| DOL | DOL | *****9732 | KENT HOLLOW SIDING LLC | | 29A BRIDGE STREET NEW MILFORD CT 06776 | 01/15/2016 | 01/15/2021 |
| DOL | DOL | | KEVIN BABCOCK JR | | P O BOX 46 THOMPSON RIDGE NY 10985 | 08/22/2014 | 08/22/2019 |
| DOL | DOL | | KEVIN M BABCOCK | | P O BOX 46 THOMPSON RIDGE NY 10985 | 08/22/2014 | 08/22/2019 |
| DOL | DOL | | KIM SOROCENSKI | | C/O SOLUTION MATTERS INC 198 NORWOOD ROADPORT JEFFERSON NY 11776 | 11/19/2015 | 11/19/2020 |
| DOL | AG | | KOSTAS "GUS" ANDRIKOPOULOS | | 2461 47TH STREET ASTORIA NY 11103 | 09/26/2013 | 09/26/2018 |
| DOL | DA | *****8816 | LAKE CONSTRUCTION AND DEVELOPMENT CORPORATION | | 150 KINGS STREET BROOKLYN NY 11231 | 08/19/1998 | 08/19/2998 |
| DOL | DOL | *****6224 | LAKESIDE FIRE SPRINKLERS LLC | | 125 CHAUTAUQUA AVENUE LAKEWOOD NY 14750 | 06/24/2015 | 06/24/2020 |
| DOL | AG | *****4643 | LALO DRYWALL, INC. | | 221 OLD FORD ROAD NEW PLATZ NY 12561 | 05/20/2016 | 05/20/2021 |
| DOL | DOL | *****4505 | LARAPINTA ASSOCIATES INC | | 29 MAPLEWOOD DRIVE BINGHAMTON NY 13901 | 02/21/2017 | 02/21/2022 |
| DOL | DOL | | LAURI MARTONE | | 112 OSCAWANA HEIGHTS ROAD PUTNAM VALLEY NY 10542 | 08/27/2013 | 08/27/2018 |
| DOL | DOL | | LAVERN GLAVE | | 161 ROBYN RD MONROE NY 10950 | 09/15/2014 | 09/15/2019 |
| DOL | DOL | | LAVERN GLAVE | | 161 ROBYN RD MONROE NY 10950 | 01/30/2018 | 01/30/2023 |
| DOL | DOL | | LAWRENCE J RUGGLES | | P O BOX 371 ROUND LAKE NY 12151 | 05/12/2014 | 05/12/2019 |
| DOL | DOL | *****1364 | LEAD CONSTRUCTION SERVICES INC | | 3 ALAN B SHEPARD PLACE YONKERS NY 10705 | 03/19/2015 | 03/19/2020 |
| DOL | DOL | *****4388 | LEN.J CONSTRUCTION, LLC | | PO BOX 10007 ALBANY NY 12201 | 06/24/2016 | 09/19/2022 |
| DOL | DOL | *****4388 | LEN.J CONSTRUCTION, LLC | | PO BOX 10007 ALBANY NY 12201 | 06/24/2016 | 09/19/2022 |

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| DOL | DOL | *****4388 | LEN.J CONSTRUCTION, LLC | | PO BOX 10007 ALBANY NY 12201 | 09/19/2017 | 09/19/2022 |
| DOL | DOL | *****4388 | LEN.J CONSTRUCTION, LLC | | PO BOX 10007 ALBANY NY 12201 | 09/19/2017 | 09/19/2022 |
| DOL | DOL | *****4388 | LEN.J CONSTRUCTION, LLC | | PO BOX 10007 ALBANY NY 12201 | 01/17/2017 | 09/19/2022 |
| DOL | DOL | *****4388 | LEN.J CONSTRUCTION, LLC | | PO BOX 10007 ALBANY NY 12201 | 09/19/2017 | 09/19/2022 |
| DOL | DOL | *****4388 | LEN.J CONSTRUCTION, LLC | | PO BOX 10007 ALBANY NY 12201 | 09/19/2017 | 09/19/2022 |
| DOL | DOL | *****4388 | LEN.J CONSTRUCTION, LLC | | PO BOX 10007 ALBANY NY 12201 | 08/14/2017 | 09/19/2022 |
| DOL | AG | | LEONID FRIDMAN | | APT 5 200 BRIGHTON, 15TH STBROOKLYN NY 11235 | 01/23/2014 | 01/23/2019 |
| DOL | DOL | | LEROY NELSON JR | | PO BOX 10007 ALBANY NY 12201 | 09/19/2017 | 09/19/2022 |
| DOL | DOL | | LEROY NELSON JR | | PO BOX 10007 ALBANY NY 12201 | 09/19/2017 | 09/19/2022 |
| DOL | DOL | | LEROY NELSON JR | | PO BOX 10007 ALBANY NY 12201 | 09/19/2017 | 09/19/2022 |
| DOL | DOL | | LEROY NELSON JR | | PO BOX 10007 ALBANY NY 12201 | 09/19/2017 | 09/19/2022 |
| DOL | DOL | | LEROY NELSON JR | | PO BOX 10007 ALBANY NY 12201 | 08/14/2017 | 08/14/2022 |
| DOL | DOL | | LEROY NELSON JR | | PO BOX 10007 ALBANY NY 12201 | 01/17/2017 | 09/19/2022 |
| DOL | DOL | | LINDSEY R CRILL | | 143 FILLMORE AVENUE BUFFALO NY 14210 | 01/08/2015 | 01/08/2020 |
| DOL | AG | *****4216 | LOTUS-C CORP. | | 81-06 34TH AVENUE APT. 6EJACKSON HEIGHTS NY 11372 | 02/07/2018 | 02/07/2023 |
| DOL | AG | | LUIS MARTINEZ | LALO DRYWALL | 211 MAIN ST. NEW PALTZ NY 12561 | 05/20/2016 | 05/20/2021 |
| DOL | NYC | *****2850 | M A 2 FLAGS CONTRACTING CORP | | 25-18 100TH STREET EAST ELMHURST NY 11369 | 08/21/2013 | 08/21/2018 |
| DOL | DOL | | M ANVER BEIG | | 142 EAST MARKET STREET LONG BEACH NY 11561 | 03/07/2017 | 03/07/2022 |
| DOL | AG | *****6957 | M B DIN CONSTRUCTION INC | | 8831 20TH AVENUE/SUITE 6E BROOKLYN NY 11214 | 11/17/2015 | 11/17/2020 |
| DOL | NYC | *****6317 | M S QUALITY CONSTRUCTION LLC | | 27 MAPLEWOOD AVENUE COLONIA NJ 07067 | 02/04/2015 | 02/04/2020 |
| DOL | DOL | | M. ANVER BEIG | | 142 EAST MARKET STREET LONG BEACH NY 11561 | 03/07/2017 | 03/07/2022 |
| DOL | NYC | | MACIEJ SONTOWSKI | | 27 MAPLEWOOD AVENUE COLONIA NJ 07067 | 02/04/2015 | 02/04/2020 |
| DOL | NYC | *****9590 | MACK GLASSNAUTH IRON WORKS INC | | 137 LIBERTY AVENUE BROOKLYN NY 11212 | 12/21/2015 | 12/21/2020 |
| DOL | NYC | *****3141 | MACKIE REED ELECTRIC INC | | 1ST FLOOR STORE FRONT 88-10 LITTLE NECK PARKWAYFLORAL PARK NY 11001 | 06/24/2014 | 06/24/2019 |
| DOL | DOL | *****1784 | MADISON AVE CONSTRUCTION CORP | | 39 PENNY STREET WEST ISLIP NY 11795 | 11/02/2016 | 11/02/2021 |
| DOL | DOL | | MALARKEY'S BAR & GRILL LLC | | 64 VICTORIA DRIVE BINGHAMTON NY 13904 | 02/04/2016 | 02/04/2021 |
| DOL | DOL | *****0705 | MALARKEY'S PUB & GRUB LLC | | 64 VICTORIA DRIVE BINGHAMTON NY 13904 | 02/04/2016 | 02/04/2021 |
| DOL | DA | | MANUEL P TOBIO | | 150 KINGS STREET BROOKLYN NY 14444 | 08/19/1998 | 08/19/2998 |
| DOL | DA | | MANUEL TOBIO | | 150 KINGS STREET BROOKLYN NY 11231 | 08/19/1998 | 08/19/2998 |
| DOL | DOL | | MARIACHI'S PIZZERIA | | C/O DOUGLAS L MALARKEY 64 VICTORIA DRIVEBINGHAMTON NY 13904 | 02/04/2016 | 02/04/2021 |
| DOL | DOL | | MARK MIONIS | | 6409 LAND O LAKES BLVD LAND O LAKES FL 34638 | 11/10/2015 | 11/10/2020 |
| DOL | DOL | *****5533 | MARQUISE CONSTRUCTION & DEVELOPMENT CORP | | 10 ST CHARLES STREET THORNWOOD NY 10594 | 09/03/2013 | 09/03/2018 |
| DOL | DOL | *****8810 | MARQUISE CONSTRUCTION ASSOCIATES INC | | 20 BOSWELL ROAD PUTNAM VALLEY NY 10579 | 09/03/2013 | 09/03/2018 |
| DOL | DOL | *****1134 | MARQUISE CONSTRUCTION CORP | | 10 ST CHARLES STREET THORNWOOD NY 10594 | 09/03/2013 | 09/03/2018 |
| DOL | DOL | | MARVIN A STURDEVANT | | 29 MAPLEWOOD DRIVE BINGHAMTON NY 13901 | 02/21/2017 | 02/21/2022 |
| DOL | DOL | | MASONRY CONSTRUCTION, INC. | | 442 ARMONK RD MOUNT KISCO NY 10549 | 06/12/2018 | 06/12/2023 |

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| DOL | DOL | *****3333 | MASONRY INDUSTRIES, INC. | | 442 ARMONK RD MOUNT KISCO NY 10549 | 06/12/2018 | 06/12/2023 |
| DOL | DOL | | MATTHEW IDEMA GENERAL CONTRACTORS INC | | 91 COLLEGE AVENUE POUGHKEEPSIE NY 12603 | 12/04/2015 | 12/04/2020 |
| DOL | DOL | | MAURICE GAWENO | | 442 ARMONK RD MOUNT KISCO NY 10549 | 06/12/2018 | 06/12/2023 |
| DOL | DOL | *****6416 | MCCALL MASONRY | | P O BOX 304 SAYRE PA 18840 | 08/09/2016 | 08/09/2021 |
| DOL | DOL | *****4259 | MERCANDO CONTRACTING CO INC | | 134 MURRAY AVENUE YONKERS NY 10704 | 12/11/2009 | 02/03/2019 |
| DOL | DOL | *****0327 | MERCANDO INDUSTRIES LLC | | 134 MURRAY AVENUE YONKERS NY 10704 | 12/11/2009 | 02/03/2019 |
| DOL | NYC | *****5330 | METRO DUCT SYSTEMS INC | | 1219 ASTORIA BOULEVARD LONG ISLAND CITY NY 11102 | 04/16/2014 | 11/19/2020 |
| DOL | DOL | *****3368 | MICEK CONSTRUCTION CO INC | | 20 CROSS STREET FALCONER NY 14733 | 12/02/2014 | 12/02/2019 |
| DOL | DOL | | MICHAEL A PASCARELLA | | SUITE 100 2105 WEST GENESEE STREET SYRACUSE NY 13219 | 01/06/2016 | 01/06/2021 |
| DOL | NYC | | MICHAEL HIRSCH | | C/O MZM CORP 163 S MAIN STREET NEW CITY NY 10956 | 01/28/2016 | 01/28/2021 |
| DOL | DOL | | MICHAEL KTISTAKIS | | 363 88TH STREET BROOKLYN NY 11209 | 11/18/2013 | 11/18/2018 |
| DOL | AG | | MICHAEL RIGLIETTI | | 31 BAY ST BROOKLYN NY 11231 | 03/28/2018 | 03/28/2023 |
| DOL | DOL | | MICHAEL WILSON | WILSON BROTHER DRYWALL CONTRACTOR S | 36 ABERSOLD STREET ROCHESTER NY 14621 | 08/31/2015 | 08/31/2020 |
| DOL | DOL | | MICHELLE L BARBER | | 635 LUZERNE ROAD QUEENSBURY NY 12804 | 09/16/2013 | 09/16/2018 |
| DOL | NYC | | MIGUEL ACOSTA | | 25-18 100TH STREET EAST ELMHURST NY 11369 | 08/21/2013 | 08/21/2018 |
| DOL | NYC | | MILANCE HADZIC | | 22 CALIFORNIA AVE - STE 1 PATERSON NJ 07503 | 03/11/2015 | 03/11/2020 |
| DOL | AG | | MOHAMMAD RIAZ | | 46 RUGBY ROAD WESTBURY NY 11590 | 11/20/2013 | 11/20/2018 |
| DOL | AG | | MOHAMMED N CHATHA | | 8831 20TH AVENUE/SUITE 6E BROOKLYN NY 11214 | 11/17/2015 | 11/17/2020 |
| DOL | DOL | *****2737 | MOUNTAIN'S AIR INC | | 2471 OCEAN AVENUE- STE 7A BROOKLYN NY 11229 | 09/24/2012 | 09/18/2020 |
| DOL | AG | | MSR ELECTRICAL CONSTRUCTION CORP. | | 31 BAY ST BROOKLYN NY 11231 | 03/28/2018 | 03/28/2023 |
| DOL | DOL | | MUHAMMAD BEIG | | 142 EAST MARKET STREET LONG BEACH NY 11561 | 03/07/2017 | 03/07/2022 |
| DOL | DOL | | MUHAMMAD BEIG | | 142 EAST MARKET STREET LONG BEACH NY 11561 | 03/07/2017 | 03/07/2022 |
| DOL | DOL | | MUHAMMAD PERVAIZ | | C/O CHAMPION CONSTRUCTION 2131 SCHENECTADY AVENUE BROOKLYN NY 11234 | 11/18/2015 | 11/18/2020 |
| DOL | NYC | *****3613 | MZM CORP | | 163 S MAIN STREET NEW CITY NY 10956 | 01/28/2016 | 01/28/2021 |
| DOL | NYC | *****1284 | NEW AMERICAN RESTORATION INC | | 22 CALIFORNIA AVE - STE 1 PATERSON NJ 07503 | 03/11/2015 | 03/11/2020 |
| DOL | DA | *****6988 | NEW YORK INSULATION INC | | 58-48 59TH STREET MASPETH NY 11378 | 05/16/2012 | 05/08/2020 |
| DOL | NYC | *****4839 | NEW YORK RIGGING CORP | | 58-83 54TH STREET MASPETH NY 11378 | 02/26/2016 | 02/26/2021 |
| DOL | NYC | | NICHOLAS PROVENZANO | | 147 BROOME AVENUE ATLANTIC BEACH NY 11509 | 03/03/2014 | 03/03/2019 |
| DOL | NYC | | NICHOLAS PROVENZANO | | 147 BROOME AVENUE ATLANTIC BEACH NY 11509 | 03/03/2014 | 03/03/2019 |
| DOL | NYC | *****1968 | NORTH AMERICAN IRON WORKS INC | | 1560 DECATUR STREET RIDGWOOD NY 11385 | 05/15/2015 | 05/15/2020 |
| DOL | DOL | *****6966 | NORTH COUNTRY DRYWALL AND PAINT | | 23167 COUNTY ROUTE 59 DEXTER NY 13634 | 10/24/2016 | 10/24/2021 |
| DOL | DOL | *****0065 | NORTHEAST LANDSCAPE AND MASONRY ASSOC | | 3 WEST MAIN ST/SUITE 208 ELMSFORD NY 10523 | 01/23/2017 | 01/23/2022 |
| DOL | DOL | *****1845 | OC ERECTERS, LLC A/K/A OC ERECTERS OF NY INC. | | 1207 SW 48TH TERRACE DEERFIELD BEACH FL 33442 | 01/16/2018 | 01/16/2023 |
| DOL | NYC | *****8337 | OPTIMUM CONSTRUCTION INC | | 23-73 48TH STREET LONG ISLAND CITY NY 11103 | 04/24/2014 | 04/24/2019 |

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| DOL | NYC | | ORSON ARROYO | | C/O METRO DUCT SYSTEMS 12-19 ASTORIA BOULEVARDLONG ISLAND CITY NY 11102 | 04/16/2014 | 11/19/2020 |
| DOL | DOL | *****4546 | PAF PAINTING CORP | | 161 TIBBETTS ROAD YONKERS NY 10705 | 03/12/2014 | 03/12/2019 |
| DOL | DOL | *****5242 | PAF PAINTING SERVICES INC | GARDEN STATE PAINTING | 157 TIBBETTS ROAD YONKERS NY 10103 | 03/12/2014 | 03/12/2019 |
| DOL | DOL | | PAF PAINTING SERVICES OF WESTCHESTER INC | | C/O SPIEGEL & UTRERA 1 MAIDEN LANE - 5TH FLNEW YORK NY 10038 | 03/12/2014 | 03/12/2019 |
| DOL | DOL | *****8802 | PAT'S HEATING AND AIR CONDITIONING LTD | | P O BOX 371 ROUND LAKE NY 12151 | 05/12/2014 | 05/12/2019 |
| DOL | DOL | | PATRICIA M RUGGLES | | P O BOX 371 ROUND LAKE NY 12151 | 05/12/2014 | 05/12/2019 |
| DOL | NYC | *****9422 | PELIUM CONSTRUCTION, INC. | | 22-33 35TH ST. ASTORIA NY 11105 | 12/30/2016 | 12/30/2021 |
| DOL | DOL | | PETER M PERGOLA | | 3 WEST MAIN ST/SUITE 208 ELMSFORD NY 10523 | 01/23/2017 | 01/23/2022 |
| DOL | NYC | | PETER TRITARIS | | 5990 58TH AVENUE MASPETH NY 11378 | 11/18/2013 | 11/18/2018 |
| DOL | DOL | | PIERRE LAPORT | | 224 COUNTY HIGHWAY 138 BROADALBIN NY 12025 | 03/07/2017 | 03/07/2022 |
| DOL | DOL | *****1543 | PJ LAPORT FLOORING INC | | 224 COUNTY HIGHWAY 138 BROADALBIN NY 12025 | 03/07/2017 | 03/07/2022 |
| DOL | DOL | *****2989 | PROFESSIONAL ESTIMATING & BUSINESS CORP | | 157 TIBBETS ROAD YONKERS NY 10705 | 03/12/2014 | 03/12/2019 |
| DOL | DOL | *****6895 | PROLINE CONCRETE OF WNY INC | | 3090 SHIRLEY ROAD NORTH COLLINS NY 14111 | 04/19/2011 | 07/08/2020 |
| DOL | DA | *****6817 | QUADRANT METAL BUILDINGS LLC | | 2740 SW MARTIN DOWNS BLVD PALM CITY FL 34990 | 08/25/2016 | 08/25/2021 |
| DOL | DOL | *****0015 | RAMADA CONSTRUCTION CORP | | 80 SAVO LOOP STATEN ISLAND NY 10309 | 01/07/2014 | 01/07/2019 |
| DOL | NYC | | RAMESHWAR ASU | | 137 LIBERTY AVENUE BROOKLYN NY 11212 | 12/21/2015 | 12/21/2020 |
| DOL | DOL | | RANA A KAHN | | 1973 81ST ST - SUITE A-5 BROOKLYN NY 11214 | 01/08/2015 | 01/08/2020 |
| DOL | NYC | | RANTIK PARIKH | | 13 LORIANN ROAD WARREN NJ 07059 | 07/15/2015 | 07/15/2020 |
| DOL | DOL | *****2633 | RAW POWER ELECTRIC CORP | | 3 PARK CIRCLE MIDDLETOWN NY 10940 | 09/16/2013 | 09/15/2019 |
| DOL | DOL | *****2633 | RAW POWER ELECTRIC CORP | | 3 PARK CIRCLE MIDDLETOWN NY 10940 | 01/30/2018 | 01/30/2023 |
| DOL | NYC | | RAYMOND PEARSON | | P O BOX 957 PORT JEFFERSON STA NY 11776 | 03/12/2014 | 03/12/2019 |
| DOL | AG | *****7015 | RCM PAINTING INC. | | 69-06 GRAND AVENUE 2ND FLOORMASPETH NY 11378 | 02/07/2018 | 02/07/2023 |
| DOL | DOL | | REGINALD WARREN | | 161 ROBYN RD MONROE NY 10950 | 09/15/2014 | 09/15/2019 |
| DOL | DOL | | REGINALD WARREN | | 161 ROBYN RD MONROE NY 10950 | 01/30/2018 | 01/30/2023 |
| DOL | NYC | *****3461 | RELiance GENERAL CONSTRUCTION INC | | 644 OCEAN PARKWAY BROOKLYN NY 11230 | 09/02/2015 | 09/02/2020 |
| DOL | DOL | | REVOLUTIONARY FLOORS LLC | | P O BOX 268 STILLWATER NY 12170 | 09/16/2013 | 03/21/2019 |
| DOL | DOL | | RHINO CONCRETE LLC | | 101 SULLYS TRAIL/SUITE 20 PITTSFORD NY 14534 | 11/18/2013 | 01/07/2019 |
| DOL | DA | | RIANN MULLER | | 2740 SW MARTIN DOWNS BLVD PALM CITY FL 34990 | 08/25/2016 | 08/25/2021 |
| DOL | DOL | | RICHARD WILSON | | C/O DUFOUR GROUP INC 353 WEST 56TH STREET #7MNEW YORK NY 10019 | 06/10/2014 | 06/10/2019 |
| DOL | DOL | *****8618 | RIEKS CONTRACTING LLC | | 4804 GAHWILER ROAD AUBURN NY 13021 | 05/01/2015 | 05/01/2020 |
| DOL | DOL | | ROBBYE BISSEsar | | 89-51 SPRINGFIELD BLVD QUEENS VILLAGE NY 11427 | 01/11/2003 | 01/11/3003 |
| DOL | DOL | | ROBERT BRUNO | | 3 GAYLORD ST AUBURN NY 13021 | 11/15/2016 | 11/15/2021 |
| DOL | DOL | *****1855 | ROBERT D BISHOP JR | ROBERT D BISHOP JR | P O BOX 112 MORRISONVILLE NY 12962 | 07/15/2014 | 07/15/2019 |
| DOL | DOL | | ROBERT D BISHOP JR | | P O BOX 112 MORRISONVILLE NY 12962 | 07/15/2014 | 07/15/2019 |

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| DOL | NYC | | ROBERT GUIDO | | 3256 BRUNER AVENUE BRONX NY 10469 | 07/29/2014 | 07/29/2019 |
| DOL | DOL | | ROBERT TORDELLA | | 125 CHAUTAUQUA AVENUE LAKEWOOD NY 14750 | 06/24/2015 | 06/24/2020 |
| DOL | DOL | *****3859 | ROCHESTER ACOUSTICAL CORP | | P O BOX 799 HILTON NY 14468 | 02/19/2016 | 02/19/2021 |
| DOL | NYC | | RODNEY SCOTT | | 201 HEMPSTEAD AVENUE WEST HEMPSTEAD NY 11552 | 10/30/2015 | 10/30/2020 |
| DOL | DOL | | ROMEO WARREN | | 161 ROBYN RD MONROE NY 10950 | 09/16/2013 | 09/15/2019 |
| DOL | DOL | | ROMEO WARREN | | 161 ROBYN RD MONROE NY 10950 | 01/30/2018 | 01/30/2023 |
| DOL | DOL | | ROSEANNE CANTISANI | | | 06/12/2018 | 06/12/2023 |
| DOL | DOL | | ROSS J MUSCOLINO | | 10 ST CHARLES STREET THORNWOOD NY 10594 | 09/03/2013 | 09/03/2018 |
| DOL | DOL | | RYAN ALBIE | | 21 S HOWELLS POINT ROAD BELLPORT NY 11713 | 02/21/2017 | 02/21/2022 |
| DOL | DOL | *****3347 | RYAN ALBIE CONTRACTING INC | | 21 S HOWELLS POINT ROAD BELLPORT NY 11713 | 02/21/2017 | 02/21/2022 |
| DOL | NYC | | SABIR MUHAMMED | | SUITE B-8 782 PELHAM PARKWAY SOUTHBRONX NY 10462 | 04/21/2016 | 04/21/2021 |
| DOL | NYC | | SAEED HASAN | | 4558 BROADWAY #6 NEW YORK NY 10040 | 08/04/2014 | 08/04/2019 |
| DOL | NYC | *****2117 | SCOTT ELECTRICAL LLC | | 201 HEMPSTEAD AVENUE WEST HEMPSTEAD NY 11552 | 10/30/2015 | 10/30/2020 |
| DOL | DOL | *****9751 | SCW CONSTRUCTION | | 544 OLD ROUTE 23 ACRE NY 12405 | 02/14/2017 | 02/14/2022 |
| DOL | DOL | | SEAN BURBAGE | C/O SEAN BURBAGE CORP | 445 ROOSA GAP ROAD BLOOMINGBURG NY 12721 | 04/14/2014 | 04/14/2019 |
| DOL | DOL | *****6586 | SEAN BURBAGE CORP | | 445 ROOSA GAP ROAD BLOOMINGBURG NY 12721 | 04/14/2014 | 04/14/2019 |
| DOL | AG | | SERGIO RAYMUNDO | | 109 DUBOIS RD. NEW PALTZ NY 12561 | 05/20/2016 | 05/20/2021 |
| DOL | DOL | *****1961 | SHANE BURDICK | CENTRAL TRAFFIC CONTROL, LLC. | 2238 BAKER ROAD GILLET PA 16923 | 03/12/2018 | 03/12/2023 |
| DOL | DOL | | SHANE BURDICK | | 2238 BAKER ROAD GILLET PA 16923 | 03/12/2018 | 03/12/2023 |
| DOL | DOL | *****6904 | SIGNING STAR LIMITED LIABILITY COMPANY | | 5 HANSEN PLACE WAYNE NJ 07470 | 09/18/2013 | 09/18/2018 |
| DOL | DOL | *****4025 | SOLUTION MATTERS INC | | 198 NORWOOD ROAD PORT JEFFERSON NY 11776 | 11/19/2015 | 11/19/2020 |
| DOL | NYC | *****4934 | SPHINX CONTRACTING CORP | | 240 HOME STREET TEANECK NJ 07666 | 08/04/2014 | 08/04/2019 |
| DOL | DOL | *****3496 | STAR INTERNATIONAL INC | | 89-51 SPRINGFIELD BLVD QUEENS VILLAGE NY 11427 | 08/11/2003 | 08/11/3003 |
| DOL | DOL | | STEPHEN BIANCHI | | 462 LAKEVIEW AVENUE VALHALLA NY 10595 | 12/16/2013 | 12/16/2018 |
| DOL | DOL | *****9751 | STEPHEN C WAGAR | | 544 OLD ROUTE 23 ACRE NY 12405 | 02/14/2017 | 02/14/2022 |
| DOL | DOL | | STEPHEON SHELTON | FANTASTIC PAINTING | 493 LANSING ROAD FULTONVILLE NY 12072 | 11/18/2013 | 11/18/2018 |
| DOL | DOL | | STEVEN P SUCATO | | 15-68 208TH STREET BAYSIDE NY 11360 | 06/23/2016 | 06/23/2021 |
| DOL | DOL | | STEVEN SAGGESE | | 3005 WYNSUM AVENUE MERRICK NY 11566 | 08/18/2014 | 08/18/2019 |
| DOL | DOL | | STEVEN TESTA | | 50 SALEM STREET - BLDG B LYNNFIELD MA 01940 | 01/23/2017 | 01/23/2022 |
| DOL | DOL | | STUART CHAITIN | | 634 ROUTE 303 BLAUDET NY 10913 | 07/26/2012 | 11/19/2018 |
| DOL | NYC | *****9432 | SUBLINK LTD | | 346 THIRD AVENUE PELHAM NY 10803 | 11/19/2015 | 11/19/2020 |
| DOL | DOL | | SUZANNE G GOLD | C/O GOLDS FLOORING INSTALLATION S INC | 25 HAMILTON ROAD MONTICELLO NY 12701 | 10/16/2013 | 10/16/2018 |
| DOL | DOL | *****7441 | T & T CONCRETE INC | | 2560 HAMBURG TURNPIKE P O BOX 367LACKAWANNA NY 14218 | 07/08/2015 | 07/08/2020 |
| DOL | DOL | *****7417 | TADCO CONSTRUCTION | | 101-61 99TH STREET OZONE PARK NY 11416 | 02/15/2017 | 02/15/2022 |
| DOL | DOL | | TADCO CONSTRUCTION | | 101-61 99TH STREET OZONE PARK NY 11416 | 02/15/2017 | 02/15/2022 |

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| DOL | DOL | *****7417 | TADCO CONSTRUCTION CORP | | 101-61 99TH STREET OZONE PARK NY 11416 | 02/15/2017 | 02/15/2022 |
| DOL | DOL | | TALAILA OCAMPA | | 1207 SW 48TH TERRACE DEERFIELD BEACH FL 33442 | 01/16/2018 | 01/16/2023 |
| DOL | DOL | | TAMMY LACITIGNOLA | | C/O CATSKILL FENCE INSTAL 5445 ROUTE 32CATSKILL NY 12414 | 08/22/2014 | 08/22/2019 |
| DOL | DOL | *****9852 | TAP STEEL INC | | ROUTE 26 3101 P O BOX 457CONSTABLEVILLE NY 13325 | 01/28/2016 | 01/28/2021 |
| DOL | DOL | | TECH-MECHANICAL FAB DC INC | | 5 PARKER AVENUE POUGHKEEPSIE NY 12601 | 03/25/2014 | 03/25/2019 |
| DOL | DOL | *****5570 | TESTA CORP | | 50 SALEM STREET - BLDG B LYNNFIELD MA 01940 | 01/23/2017 | 01/23/2022 |
| DOL | DOL | *****0887 | THE BRINSON PAINTING CORPORATION | | 72 TAUNTON PLACE BUFFALO NY 14216 | 04/14/2015 | 04/14/2020 |
| DOL | DOL | *****8174 | THE DALRYMPLE CORPORATION | | UNIT 278 541 10TH STREET NWLANTA GA 30318 | 12/01/2015 | 12/01/2020 |
| DOL | DOL | *****8174 | THE DALRYMPLE GROUP LLC | | 289 JONESBORO RD/ STE 216 MCDONOUGH GA 30253 | 12/01/2015 | 12/01/2020 |
| DOL | DOL | *****2070 | THE UNIVERSAL GROUP OF NEW YORK INC | | 212 OXFORD WAY SCHENECTADY NY 12309 | 12/11/2012 | 09/16/2018 |
| DOL | DOL | *****9243 | THE WELCOME MAT PROPERTY MANAGEMENT LLC | | P O BOX 268 STILLWATER NY 12170 | 09/16/2013 | 03/21/2019 |
| DOL | DOL | | THOMAS DESANTIS | DESANTIS ENTERPRISES | 161 OSWEGO RIVER ROAD PHOENIX NY 13135 | 09/24/2013 | 11/18/2018 |
| DOL | NYC | | THOMAS SCARINCI | | 130-43 92ND AVENUE RICHMOND HILLS NY 11418 | 11/27/2013 | 11/27/2018 |
| DOL | DOL | | TIMOTHY A PALUCK | | C/O TAP STEEL INC RTE 26 3101/ P O BOX 457CONSTABLEVILLE NY 13325 | 01/28/2016 | 01/28/2021 |
| DOL | DOL | | TIMOTHY F BARBER | | 635 LUZERNE ROAD QUEENSBURY NY 12804 | 09/16/2013 | 09/16/2018 |
| DOL | NYC | *****1523 | TM MECHANICAL CORP | | 130-43 92ND AVENUE RICHMOND HILLS NY 11418 | 11/27/2013 | 11/27/2018 |
| DOL | DOL | *****0600 | TOMSON ALLOYS RECYCLING INC | | 143 FILLMORE AVENUE BUFFALO NY 14210 | 01/08/2015 | 01/08/2020 |
| DOL | DOL | *****3453 | TORCHIA'S HOME IMPROVEMENT | | 10153 ROBERTS RD SAUQUOIT NY 13456 | 08/09/2016 | 08/09/2021 |
| DOL | DOL | *****6914 | TRI-COUNTY RESTORATIONS & CONSTRUCTION INC | | 13 SUMMERSET DRIVE WALLKILL NY 12589 | 08/22/2014 | 08/22/2019 |
| DOL | DOL | | TRI-COUNTY RESTORATIONS INC | | 392 ROCK CUT ROAD WALDEN NY 12586 | 08/22/2014 | 08/22/2019 |
| DOL | DOL | *****8311 | TRIPLE B FABRICATING, INC. | | 61 WILLETT ST. PASSAIC NJ 07503 | 10/26/2016 | 10/26/2021 |
| DOL | DOL | *****9407 | TURBO GROUP INC | | 15-68 208TH STREET BAYSIDE NY 11360 | 06/23/2016 | 06/23/2021 |
| DOL | AG | *****6490 | UNIVERSAL STEEL FABRICATORS INC | | 90 JUNIUS STREET BROOKLYN NY 11212 | 01/23/2014 | 01/23/2019 |
| DOL | NYC | *****7174 | V&R CONTRACTING | | P O BOX 957 PORT JEFFERSON STA NY 11776 | 03/12/2014 | 03/12/2019 |
| DOL | NYC | | VALERIE VISCONTI | | 346 THIRD AVENUE PELHAM NY 10803 | 11/19/2015 | 11/19/2020 |
| DOL | NYC | | VEAP SELA | C/O COLONIAL ROOFING COMPANY INC | 247 48TH STREET BROOKLYN NY 11220 | 02/05/2014 | 02/05/2019 |
| DOL | NYC | | VICK CONSTRUCTION | | 21 DAREWOOD LANE VALLEY STREAM NY 11581 | 12/31/2013 | 12/31/2018 |
| DOL | NYC | | VICKRAM MANGRU | VICK CONSTRUCTION | 21 DAREWOOD LANE VALLEY STREAM NY 11581 | 12/31/2013 | 12/31/2018 |
| DOL | DOL | | VICTOR ROTENBERG | | C/O GMDV TRANS INC 67048 182ND STREETFRESH MEADOWS NY 11365 | 06/24/2016 | 06/24/2021 |
| DOL | NYC | | VINCENT PIZZITOLA | | P O BOX 957 PORT JEFFERSON STA NY 11776 | 03/12/2014 | 03/12/2019 |
| DOL | NYC | | VITO GARGANO | | 1535 RICHMOND AVE STATEN ISLAND NY 10314 | 12/13/2017 | 12/13/2022 |
| DOL | DOL | | WAYNE LIVINGSTON JR | NORTH COUNTRY DRYWALL AND PAINT | 23167 COUNTY ROUTE 59 DEXTER NY 13634 | 10/24/2016 | 10/24/2021 |
| DOL | DOL | | WHITE PLAINS CARPENTRY CORP | | 442 ARMONK RD | 06/12/2018 | 06/12/2023 |

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| DOL | DOL | | WILLIAM CONKLIN | | 5 PARKER AVENUE POUGHKEEPSIE NY 12601 | 03/25/2014 | 03/25/2019 |
| DOL | DOL | | WILLIAM DEAK | | C/O MADISON AVE CONSTR CO 39 PENNY STREETWEST ISLIP NY 11795 | 11/02/2016 | 11/02/2021 |
| DOL | DOL | | WILLIAM MAZZELLA | | 134 MURRAY AVENUE YONKERS NY 10704 | 02/03/2014 | 02/03/2019 |
| DOL | DOL | | WILLIE BRINSON | | 72 TAUNTON PLACE BUFFALO NY 14216 | 04/14/2015 | 04/14/2020 |
| DOL | DOL | *****6195 | WILSON BROTHER DRYWALL CONTRACTORS | | 36 ABERSOLD STREET ROCHESTER NY 14621 | 08/31/2015 | 08/31/2020 |
| DOL | DOL | *****4043 | WINDSHIELD INSTALLATION NETWORK, INC. | | 200 LATTA BROOK PARK HORSEHEADS NY 14845 | 03/08/2018 | 03/08/2023 |
| DOL | DOL | *****7345 | YES SERVICE AND REPAIRS CORPORATION | | 145 LODGE AVE HUNTINGTON STATION NY 11476 | 08/09/2016 | 08/09/2021 |
| DOL | DOL | | YURIY IVANIN | | C/O MOUNTAIN'S AIR INC 2471 OCEAN AVENUE-STE 7ABROOKLYN NY 11229 | 09/24/2012 | 09/18/2020 |

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| AGENCY | Fiscal Officer | FEIN | EMPLOYER NAME | EMPLOYER DBA NAME | ADDRESS | DEBARMENT START DATE | DEBARMENT END DATE |
|--------|----------------|-----------|--------------------------------|------------------------------------|--|----------------------|--------------------|
| DOL | DOL | *****5530 | CFM SERVICE CORPORATION INC | | P O BOX 548 225 MONTAUK HWY/SUITE 219MORICHES NY 11955 | 11/28/2012 | 04/15/2021 |
| DOL | DOL | | JOSEPH KLEINPETER | CFM SERVICE CORPORATIO N INC | P O BOX 548 225 MONTAUK HWY/SUITE 219MORICHES NY 11955 | 11/28/2012 | 04/15/2021 |
| DOL | NYC | | ROBERT SARDINA | | C/O TRAFFIC MOVING SYSTEM 66 ALEXANDER STREETYONKERS NY 10701 | 03/31/2015 | 03/31/2020 |
| DOL | NYC | *****2049 | TRAFFIC MOVING SYSTEMS INC | | 66 ALEXANDER STREET YONKERS NY 10701 | 03/31/2015 | 03/31/2020 |

SECTION F

TECHNICAL SPECIFICATIONS

SECTION 210517 - SLEEVES AND SLEEVE SEALS FOR FIRE-SUPPRESSION PIPING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:

- 1. Sleeves
 - 2. Grout
 - 3. Silicone sealants

- B. Related Sections:

- 1. Section 210518 "Escutcheons for Fire-Suppression Piping"
 - 2. Section 210523 "General Duty Valves for Fire Protection Piping"
 - 3. Section 210529 "Hangers and Supports for Fire Suppression Piping and Equipment"
 - 4. Section 210553 "Identification for Fire-Suppression Piping and Equipment"
 - 5. Section 211316 "Dry-Pipe Sprinkler Systems"
 - 6. Section 212200 "Clean Agent Fire Extinguishing Systems"

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated.

PART 2 - PRODUCTS

2.1 SLEEVES

- A. Galvanized Steel Pipe Sleeves: ASTM A 53/A 53M, Type E, Grade B, Schedule 40, galvanized, with plain ends and integral welded waterstop collar.
- B. PVC Pipe Sleeves: ASTM D 1785, Schedule 40.

2.2 GROUT

- A. Standard: ASTM C 1107/C 1107M, Grade B, post-hardening and volume-adjusting, dry, hydraulic-cement grout.
- B. Characteristics: Non-shrink; recommended for interior and exterior applications.
- C. Design Mix: 5000-psi, 28-day compressive strength.
- D. Packaging: Premixed and factory packaged.

2.3 SILICONE SEALANTS

- A. Silicone, S, NS, 25, NT: Single-component, non-sag, plus 25 percent and minus 25 percent movement capability, non-traffic use, neutral-curing silicone joint sealant, ASTM C 920, Type S, Grade NS, Class 25, Use NT.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Dow Corning Corporation
 - b. GE Construction Sealants
 - c. Polymeric Systems, Inc.
 - d. Schnee-Morehead, Inc., an ITW Company
 - e. The Sherwin-Williams Company
- B. Silicone, S, P, 25, T, NT: Single-component, pourable, plus 25 percent and minus 25 percent movement capability, traffic and non-traffic use, neutral-curing silicone joint sealant; ASTM C 920, Type S, Grade P, Class 25, Uses T and NT. Grade P Pourable (self-leveling) formulation is for opening in floors and other horizontal surfaces that are not fire rated.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. May National Associates, Inc., A subsidiary of Sika Corporation

PART 3 - EXECUTION

3.1 SLEEVE INSTALLATION

- A. Install sleeves for piping passing through penetrations in floors, partitions, roofs, and walls.
- B. For sleeves that will have sleeve-seal system installed, select sleeves of size large enough to provide 1-inch annular clear space between piping and concrete slabs and walls.
 - 1. Sleeves are not required for core-drilled holes in concrete.

- C. Install sleeves in concrete floors, concrete roof slabs, and concrete walls as new slabs and walls are constructed.
 - 1. Permanent sleeves are not required for holes in slabs formed by molded-PE or -PP sleeves.
 - 2. Cut sleeves to length for mounting flush with both surfaces.
 - a. Exception: Extend sleeves installed in floors of mechanical equipment areas or other wet areas 2 inches above finished floor level.
 - 3. Using grout or silicone sealant, seal the space outside of sleeves in slabs and walls without sleeve-seal system.
- D. Install sleeves for pipes passing through interior partitions.
 - 1. Cut sleeves to length for mounting flush with both surfaces.
 - 2. Install sleeves that are large enough to provide 1/4-inch annular clear space between sleeve and pipe.
 - 3. Seal annular space between sleeve and piping; use joint sealants appropriate for size, depth, and location of joint.
- E. Fire-Barrier Penetrations: Maintain indicated fire rating of walls, partitions, ceilings, and floors at pipe penetrations. Seal pipe penetrations with fire- and smoke-stop materials. Comply with requirements for firestopping and fill materials specified in Section 078413 "Penetration Firestopping."

3.2 SLEEVE-SEAL-SYSTEM INSTALLATION

- A. Install sleeve-seal systems in sleeves in exterior concrete walls and slabs-on-grade at service piping entries into building.
- B. Select type, size, and number of sealing elements required for piping material and size and for sleeve ID or hole size. Position piping in center of sleeve. Center piping in penetration, assemble sleeve-seal system components, and install in annular space between piping and sleeve. Tighten bolts against pressure plates that cause sealing elements to expand and make a watertight seal.

3.3 FIELD QUALITY CONTROL

- A. Perform the following tests and inspections:
 - 1. Leak Test: After allowing for a full cure, test sleeves and sleeve seals for leaks. Repair leaks and retest until no leaks exist.
- B. Sleeves and sleeve seals will be considered defective if they do not pass tests and inspections.
- C. Prepare test and inspection reports.

Cattaraugus County Jail
Sheriff's Office Fire Protection Improvements
Little Valley, NY
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3.4 SLEEVE AND SLEEVE-SEAL SCHEDULE

- A. Use sleeves and sleeve seals for the following piping-penetration applications:
 - 1. Concrete Slabs above Grade:
 - a. Piping Smaller Than NPS 6: PVC pipe sleeves.
 - 2. Interior Partitions:
 - a. Piping Smaller Than NPS 6: Galvanized-steel-pipe sleeves or PVC pipe sleeves.

END OF SECTION 210517

SECTION 210518 - ESCUTCHEONS FOR FIRE-SUPPRESSION PIPING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:

- 1. Escutcheons.
- 2. Floor plates.

- B. Related Sections:

- 1. Section 210517 "Sleeves and Sleeve Seals for Fire-Suppression Piping"
- 2. Section 210523 "General Duty Valves for Fire Protection Piping"
- 3. Section 210529 "Hangers and Supports for Fire Suppression Piping and Equipment"
- 4. Section 210553 "Identification for Fire-Suppression Piping and Equipment"
- 5. Section 211316 "Dry-Pipe Sprinkler Systems"
- 6. Section 212200 "Clean Agent Fire Extinguishing Systems"

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. BrassCraft Manufacturing Co., A Masco company
 - 2. Dearborn Brass
 - 3. Jones Stephens Corp.
 - 4. Keeney Manufacturing Company
 - 5. Mid-America Fittings, Inc.
 - 6. ProFlo; a Ferguson Enterprises, Inc. brand

2.2 ESCUTCHEONS

- A. One-Piece, Cast-Brass Type: With polished, chrome-plated finish and setscrew fastener.
- B. One-Piece, Deep-Pattern Type: Deep-drawn, box-shaped brass with chrome-plated finish and spring-clip fasteners.
- C. One-Piece, Stamped-Steel Type: With chrome-plated finish and spring-clip fasteners.
- D. Split-Plate, Stamped-Steel Type: With chrome-plated finish, concealed hinge, and spring-clip fasteners.

2.3 FLOOR PLATES

- A. One-Piece Floor Plates: Cast-iron flange with holes for fasteners.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install escutcheons for piping penetrations of walls, ceilings, and finished floors.
- B. Install escutcheons with ID to closely fit around pipe, tube, and insulation of piping and with OD that completely covers opening.
 - 1. Escutcheons for New Piping:
 - a. Piping with Fitting or Sleeve Protruding from Wall: One-piece, deep-pattern type.
 - b. Bare Piping at Wall and Floor Penetrations in Finished Spaces: One-piece, cast-brass type with polished, chrome-plated finish.
 - c. Bare Piping at Ceiling Penetrations in Finished Spaces: One-piece, cast-brass type with polished, chrome-plated finish.
 - d. Bare Piping in Unfinished Service Spaces: One-piece, cast-brass or split-casting brass type with chrome-plated finish.
 - e. Bare Piping in Equipment Rooms: One-piece, stamped-steel type or split-plate, stamped-steel type with concealed hinge.
- C. Install floor plates for piping penetrations of equipment-room floors.
- D. Install floor plates with ID to closely fit around pipe, tube, and insulation of piping and with OD that completely covers opening.
 - 1. New Piping: One-piece, floor-plate type.

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3.2 FIELD QUALITY CONTROL

- A. Replace broken and damaged escutcheons and floor plates using new materials.

END OF SECTION 210518

SECTION 210523 - GENERAL-DUTY VALVES FOR WATER-BASED FIRE-SUPPRESSION PIPING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:

- 1. Two-piece ball valves with indicators.
 - 2. Check valves.
 - 3. Bronze OS&Y gate valves.
 - 4. Iron OS&Y gate valves.
 - 5. NRS gate valves.
 - 6. Trim and drain valves.

- B. Related Sections:

- 1. Section 210517 "Sleeves and Sleeve Seals for Fire-Suppression Piping"
 - 2. Section 210518 "Escutcheons for Fire-Suppression Piping"
 - 3. Section 210529 "Hangers and Supports for Fire Suppression Piping and Equipment"
 - 4. Section 210553 "Identification for Fire-Suppression Piping and Equipment"
 - 5. Section 211316 "Dry-Pipe Sprinkler Systems"
 - 6. Section 212200 "Clean Agent Fire Extinguishing Systems"

1.3 DEFINITIONS

- A. NBR: Acrylonitrile-butadiene, Buna-N, or nitrile rubber.
- B. NRS: Non-rising stem.
- C. OS&Y: Outside screw and yoke.
- D. SBR: Styrene-butadiene rubber.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of valve.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Prepare valves for shipping as follows:

1. Protect internal parts against rust and corrosion.
2. Protect threads, flange faces, and weld ends.
3. Set valves open to minimize exposure of functional surfaces.

B. Use the following precautions during storage:

1. Maintain valve end protection.
2. Store valves indoors and maintain at higher than ambient dew point temperature. If outdoor storage is necessary, store valves off the ground in watertight enclosures.

C. Use sling to handle large valves; rig sling to avoid damage to exposed parts. Do not use operating handles or stems as lifting or rigging points.

D. Protect flanges and specialties from moisture and dirt.

PART 2 - PRODUCTS

2.1 GENERAL REQUIREMENTS FOR VALVES

A. UL Listed: Valves shall be listed in UL's "Online Certifications Directory" under the headings listed below and shall bear UL mark:

1. Main Level: HAMV - Fire Main Equipment.
 - a. Level 1: HCBZ - Indicator Posts, Gate Valve.
 - b. Level 1: HLOT - Valves.
 - 1) Level 3: HLUG - Ball Valves, System Control.
 - 2) Level 3: HLXS - Butterfly Valves.
 - 3) Level 3: HMER - Check Valves.
 - 4) Level 3: HMRZ - Gate Valves.
2. Main Level: VDGT - Sprinkler System & Water Spray System Devices.
 - a. Level 1: VQGU - Valves, Trim and Drain.

B. FM Global Approved: Valves shall be listed in its "Approval Guide," under the headings listed below:

1. Automated Sprinkler Systems:
 - a. Indicator posts.
 - b. Valves.

- 1) Gate valves.
 - 2) Check valves.
 - a) Single check valves.
 - 3) Miscellaneous valves.
- C. Source Limitations for Valves: Obtain valves for each valve type from single manufacturer.
- D. ASME Compliance:
1. ASME B16.1 for flanges on iron valves.
 2. ASME B1.20.1 for threads for threaded-end valves.
 3. ASME B31.9 for building services piping valves.
- E. AWWA Compliance: Comply with AWWA C606 for grooved-end connections.
- F. NFPA Compliance: Comply with NFPA 24 for valves.
- G. Valve Pressure Ratings: Not less than the minimum pressure rating indicated or higher as required by system pressures.
- H. Valve Sizes: Same as upstream piping unless otherwise indicated.
- I. Valve Actuator Types:
1. Worm-gear actuator with handwheel for quarter-turn valves, except for trim and drain valves.
 2. Handwheel: For other than quarter-turn trim and drain valves.
 3. Handlever: For quarter-turn trim and drain valves NPS 2 and smaller.

2.2 TWO-PIECE BALL VALVES WITH INDICATORS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
1. NIBCO INC.
 2. Victaulic Company.
- B. Description:
1. UL 1091, except with ball instead of disc and FM Global standard for indicating valves (ball type), Class Number 1112.
 2. Minimum Pressure Rating: 175 psig.
 3. Body Design: Two piece.
 4. Body Material: Forged brass or bronze.
 5. Port Size: Full.
 6. Seats: PTFE.

7. Stem: Bronze or stainless steel.
8. Ball: Chrome-plated brass.
9. Actuator: Worm gear or traveling nut.
10. Supervisory Switch: Internal or external.
11. End Connections for Valves NPS 1 through NPS 2: Threaded ends.
12. End Connections for Valves NPS 2-1/2: Grooved ends.

2.3 CHECK VALVES

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Anvil International, Inc.
2. NIBCO INC.
3. Reliable Automatic Sprinkler Co., Inc.
4. Tyco Fire & Building Products LP.
5. Victaulic Company.
6. Viking Corporation.
7. Watts Water Technologies, Inc.

- B. Description:

1. Standard: UL 312 and FM Global standard for swing check valves, Class Number 1210.
2. Minimum Pressure Rating: 175 psig.
3. Type: Single swing check.
4. Body Material: Cast iron, ductile iron, or bronze.
5. Clapper: Bronze, ductile iron, or stainless steel with elastomeric seal.
6. Clapper Seat: Brass, bronze, or stainless steel.
7. Hinge Shaft: Bronze or stainless steel.
8. Hinge Spring: Stainless steel.
9. End Connections: Flanged, grooved, or threaded.

2.4 BRONZE OS&Y GATE VALVES

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Milwaukee Valve Company.
2. NIBCO INC.
3. United Brass Works, Inc.

- B. Description:

1. Standard: UL 262 and FM Global standard for fire-service water control valves (OS&Y- and NRS-type gate valves).
2. Minimum Pressure Rating: 175 psig.
3. Body and Bonnet Material: Bronze or brass.

4. Wedge: One-piece bronze or brass.
5. Wedge Seat: Bronze.
6. Stem: Bronze or brass.
7. Packing: Non-asbestos PTFE.
8. Supervisory Switch: External.
9. End Connections: Threaded.

2.5 IRON OS&Y GATE VALVES

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Kennedy Valve; a division of McWane, Inc.
2. Mueller Co.; Water Products Division.
3. NIBCO INC.
4. Victaulic Company.
5. Watts Water Technologies, Inc.

- B. Description:

1. Standard: UL 262 and FM Global standard for fire-service water control valves (OS&Y- and NRS-type gate valves).
2. Minimum Pressure Rating: 175 psig.
3. Body and Bonnet Material: Cast or ductile iron.
4. Wedge: Cast or ductile iron, or bronze with elastomeric coating.
5. Wedge Seat: Cast or ductile iron, or bronze with elastomeric coating.
6. Stem: Brass or bronze.
7. Packing: Non-asbestos PTFE.
8. Supervisory Switch: External.
9. End Connections: Flanged or Grooved.

2.6 NRS GATE VALVES

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Kennedy Valve; a division of McWane, Inc.
2. Mueller Co.; Water Products Division.
3. NIBCO INC.
4. Victaulic Company.

- B. Description:

1. Standard: UL 262 and FM Global standard for fire-service water control valves (OS&Y- and NRS-type gate valves).
2. Minimum Pressure Rating: 175 psig.
3. Body and Bonnet Material: Cast or ductile iron.

4. Wedge: Cast or ductile iron with elastomeric coating.
5. Wedge Seat: Cast or ductile iron, or bronze with elastomeric coating.
6. Stem: Brass or bronze.
7. Packing: Non-asbestos PTFE.
8. Supervisory Switch: External.
9. End Connections: Flanged or Grooved.

2.7 TRIM AND DRAIN VALVES

A. Ball Valves:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Fire Protection Products, Inc.
 - b. Milwaukee Valve Company.
 - c. NIBCO INC.
 - d. Potter Roemer.
 - e. Tyco Fire & Building Products LP.
 - f. Victaulic Company.
 - g. Watts Water Technologies, Inc.
2. Description:
 - a. Pressure Rating: 175 psig
 - b. Body Design: Two piece.
 - c. Body Material: Forged brass or bronze.
 - d. Port size: Full.
 - e. Seats: PTFE.
 - f. Stem: Bronze or stainless steel.
 - g. Ball: Chrome-plated brass.
 - h. Actuator: Handlever.
 - i. End Connections for Valves NPS 1 through NPS 2-1/2: Threaded ends.
 - j. End Connections for Valves NPS 1-1/4 and NPS 2-1/2: Grooved ends.

B. Angle Valves:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Fire Protection Products, Inc.
 - b. NIBCO INC.
 - c. United Brass Works, Inc.
2. Description:
 - a. Pressure Rating: 175 psig.
 - b. Body Material: Brass or bronze.

- c. Ends: Threaded.
- d. Stem: Bronze.
- e. Disc: Bronze.
- f. Packing: Asbestos free.
- g. Handwheel: Malleable iron, bronze, or aluminum.

C. Globe Valves:

- 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. NIBCO INC.
 - b. United Brass Works, Inc.
- 2. Description:
 - a. Pressure Rating: 175 psig.
 - b. Body Material: Bronze with integral seat and screw-in bonnet.
 - c. Ends: Threaded.
 - d. Stem: Bronze.
 - e. Disc Holder and Nut: Bronze.
 - f. Disc Seat: Nitrile.
 - g. Packing: Asbestos free.
 - h. Handwheel: Malleable iron, bronze, or aluminum.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine valve interior for cleanliness, freedom from foreign matter, and corrosion. Remove special packing materials, such as blocks, used to prevent disc movement during shipping and handling.
- B. Operate valves in positions from fully open to fully closed. Examine guides and seats made accessible by such operations.
- C. Examine threads on valve and mating pipe for form and cleanliness.
- D. Examine mating flange faces for conditions that might cause leakage. Check bolting for proper size, length, and material. Verify that gasket is of proper size, that its material composition is suitable for service, and that it is free from defects and damage.
- E. Do not attempt to repair defective valves; replace with new valves.

3.2 GENERAL REQUIREMENTS FOR VALVE INSTALLATION

- A. Comply with requirements in the following Sections for specific valve installation requirements and applications:
 - 1. Section 211313 "Wet-Pipe Sprinkler Systems" for application of valves in wet-pipe, fire-suppression sprinkler systems.
- B. Install listed fire-protection shutoff valves supervised-open, located to control sources of water supply except from fire-department connections. Install permanent identification signs indicating portion of system controlled by each valve.
- C. Install check valve in each water-supply connection. Install backflow preventers instead of check valves in potable-water-supply sources.
- D. Install valves having threaded connections with unions at each piece of equipment arranged to allow easy access, service, maintenance, and equipment removal without system shutdown. Provide separate support where necessary.
- E. Install valves in horizontal piping with stem at or above the pipe center.
- F. Install valves in position to allow full stem movement.
- G. Install valve tags. Comply with requirements in Section 210553 "Identification for Fire-Suppression Piping and Equipment" for valve tags and schedules and signs on surfaces concealing valves; and the NFPA standard applying to the piping system in which valves are installed. Install permanent identification signs indicating the portion of system controlled by each valve.

END OF SECTION 210523

SECTION 210529 - HANGERS AND SUPPORTS FOR FIRE SUPPRESSION PIPING AND EQUIPMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:

- 1. Metal pipe hangers and supports.
 - 2. Fastener systems.
 - 3. Equipment supports.

- B. Related Sections:

- 1. Section 210517 "Sleeves and Sleeve Seals for Fire-Suppression Piping"
 - 2. Section 210518 "Escutcheons for Fire-Suppression Piping"
 - 3. Section 210523 "General Duty Valves for Fire Protection Piping"
 - 4. Section 210553 "Identification for Fire-Suppression Piping and Equipment"
 - 5. Section 211316 "Dry-Pipe Sprinkler Systems"
 - 6. Section 212200 "Clean Agent Fire Extinguishing Systems"

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Shop Drawings: Signed and sealed by a qualified professional engineer. Show fabrication and installation details and include calculations for the following:
 - 1. Metal framing systems.
 - 2. Equipment supports.

1.4 INFORMATIONAL SUBMITTALS

- A. Welding certificates.

1.5 QUALITY ASSURANCE

- A. Structural-Steel Welding Qualifications: Qualify procedures and personnel according to AWS D1.1/D1.1M.
- B. Pipe Welding Qualifications: Qualify procedures and operators according to 2015 ASME Boiler and Pressure Vessel Code, Section IX.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Structural Performance: Hangers and supports for fire-suppression piping and equipment shall withstand the effects of gravity loads and stresses within limits and under conditions indicated according to ASCE/SEI 7.
 - 1. Design supports for multiple pipes, including pipe stands, capable of supporting combined weight of supported systems, system contents, and test water.
 - 2. Design equipment supports capable of supporting combined operating weight of supported equipment and connected systems and components.
- B. NFPA Compliance: Comply with NFPA 13.
- C. UL Compliance: Comply with UL 203.

2.2 METAL PIPE HANGERS AND SUPPORTS

- A. Carbon-Steel Pipe Hangers and Supports:
 - 1. Description: Factory-fabricated components, NFPA approved, UL listed, or FM approved for fire-suppression piping support.
 - 2. Galvanized Metallic Coatings: Pre-galvanized or hot-dip galvanized.
 - 3. Hanger Rods: Continuous-thread rod, nuts, and washer made of stainless steel.

2.3 FASTENER SYSTEMS

- A. Powder-Actuated Fasteners: NFPA-approved, UL-listed, or FM-approved threaded-steel stud, for use in hardened portland cement concrete, with pull-out, tension, and shear capacities appropriate for supported loads and building materials where used.
- B. Mechanical-Expansion Anchors: NFPA-approved, UL-listed, or FM-approved, insert-wedge-type anchors, for use in hardened portland cement concrete; with pull-out, tension, and shear capacities appropriate for supported loads and building materials where used.
 - 1. Indoor Applications: Zinc-coated or Stainless steel.
 - 2. Outdoor Applications: Stainless steel.

2.4 EQUIPMENT SUPPORTS

- A. Description: NFPA-approved, UL-listed, or FM-approved, welded, shop- or field-fabricated equipment support, made from structural-carbon-steel shapes.

2.5 MATERIALS

- A. Aluminum: ASTM B 221.
- B. Carbon Steel: ASTM A 1011/A 1011M.
- C. Structural Steel: ASTM A 36/A 36M, carbon-steel plates, shapes, and bars; black and galvanized.
- D. Stainless Steel: ASTM A 240/A 240M.
- E. Grout: ASTM C 1107/C 1107M, factory-mixed and -packaged, dry, hydraulic-cement, non-shrink and nonmetallic grout, suitable for interior and exterior applications.
 - 1. Properties: Non-staining, noncorrosive, and nongaseous.
 - 2. Design Mix: 5000-psi, 28-day compressive strength.

PART 3 - EXECUTION

3.1 APPLICATION

- A. Comply with requirements in Section 078413 "Penetration Firestopping" for firestopping materials and installation, for penetrations through fire-rated walls, ceilings, and assemblies.
- B. Strength of Support Assemblies: Where not indicated, select sizes of components, so strength will be adequate to carry present and future static loads within specified loading limits. Minimum static design load used for strength determination shall be weight of supported components plus 200 lb.

3.2 HANGER AND SUPPORT INSTALLATION

- A. Metal Pipe-Hanger Installation: Comply with installation requirements of approvals and listings. Install hangers, supports, clamps, and attachments as required to properly support piping from building structure.
- B. Fastener System Installation:
 - 1. Install powder-actuated fasteners for use in lightweight concrete or concrete slabs less than 4 inches thick in concrete, after concrete is placed and completely cured. Use operators that are licensed by powder-actuated tool manufacturer. Install fasteners

- according to powder-actuated tool manufacturer's operating manual. Install in accordance with approvals and listings.
2. Install mechanical-expansion anchors in concrete, after concrete is placed and completely cured. Install fasteners according to manufacturer's written instructions. Install in accordance with approvals and listings.
- C. Install hangers and supports complete with necessary attachments, inserts, bolts, rods, nuts, washers, and other accessories.
 - D. Equipment Support Installation: Fabricate from welded-structural-steel shapes.
 - E. Install lateral bracing with pipe hangers and supports to prevent swaying.
 - F. Install building attachments within concrete slabs or attach to structural steel. Install additional attachments at concentrated loads, including valves, flanges, and strainers, NPS 2-1/2 and larger and at changes in direction of piping. Install concrete inserts before concrete is placed; fasten inserts to forms, and install reinforcing bars through openings at top of inserts.
 - G. Load Distribution: Install hangers and supports, so that piping live and dead loads and stresses from movement will not be transmitted to connected equipment.
 - H. Pipe Slopes: Install hangers and supports to provide indicated pipe slopes and to not exceed maximum pipe deflections allowed by ASME B31.9 for building services piping.

3.3 EQUIPMENT SUPPORTS

- A. Fabricate structural-steel stands to suspend equipment from structure overhead or to support equipment above floor.
- B. Grouting: Place grout under supports for equipment, and make bearing surface smooth.
- C. Provide lateral bracing, to prevent swaying, for equipment supports.

3.4 METAL FABRICATIONS

- A. Cut, drill, and fit miscellaneous metal fabrications for equipment supports.
- B. Fit exposed connections together to form hairline joints. Field weld connections that cannot be shop welded because of shipping size limitations.
- C. Field Welding: Comply with AWS D1.1/D1.1M procedures for shielded, metal arc welding; appearance and quality of welds; and methods used in correcting welding work; and with the following:
 1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
 2. Obtain fusion without undercut or overlap.

3. Remove welding flux immediately.
4. Finish welds at exposed connections, so no roughness shows after finishing and so contours of welded surfaces match adjacent contours.

3.5 ADJUSTING

- A. Hanger Adjustments: Adjust hangers to distribute loads equally on attachments and to achieve indicated slope of pipe.
- B. Trim excess length of continuous-thread hanger and support rods to 1-1/2 inches.

3.6 PAINTING

- A. Touchup: Clean field welds and abraded, shop-painted areas. Paint exposed areas immediately after erecting hangers and supports. Use same materials as those used for shop painting. Comply with SSPC-PA 1 requirements for touching up field-painted surfaces.
 1. Apply paint by brush or spray to provide a minimum dry film thickness of 2.0.
- B. Touchup: Cleaning and touchup painting of field welds, bolted connections, and abraded, shop-painted areas on miscellaneous metal are specified in Section 099123 "Interior Painting" and/or Section 099600 "High-Performance Coatings".
- C. Galvanized Surfaces: Clean welds, bolted connections, and abraded areas, and apply galvanizing-repair paint to comply with ASTM A 780/A 780M.

3.7 HANGER AND SUPPORT SCHEDULE

- A. Specific hanger and support requirements are in Sections specifying piping systems and equipment.
- B. Comply with NFPA requirements for pipe-hanger selections and applications that are not specified in piping system Sections.
- C. Use hangers and supports with galvanized metallic coatings for piping and equipment that will not have field-applied finishes.
- D. Use carbon-steel pipe hangers, supports and attachments for general service applications.
- E. Horizontal-Piping Hangers and Supports: Comply with NFPA requirements. Unless otherwise indicated and except as specified in piping system Sections, install the following types:
 1. Adjustable, Steel Clevis Hangers (MSS Type 1): For suspension of non-insulated stationary pipes for sizes NPS 1/2 to NPS 30.
 2. Steel Pipe Clamps (MSS Type 4): For suspension of non-insulated stationary pipes for sizes NPS 1/2 to NPS 24.

3. Adjustable, Swivel-Ring Band Hangers (MSS Type 10): For suspension of non-insulated, stationary pipes for sizes NPS 1/2 to NPS 8.
 4. Extension Hinged or Two-Bolt Split Pipe Clamps (MSS Type 12): For suspension of non-insulated, stationary pipes for sizes NPS 3/8 to NPS 3.
 5. U-Bolts (MSS Type 24): For support of heavy pipes for sizes NPS 1/2 to NPS 30.
 6. Pipe Saddle Supports (MSS Type 36): For support of pipes for sizes NPS 4 to NPS 36, with steel-pipe base stanchion support and cast-iron floor flange or carbon-steel plate.
 7. Pipe Stanchion Saddles (MSS Type 37): For support of pipes for sizes NPS 4 to NPS 36, with steel-pipe base stanchion support and cast-iron floor flange or carbon-steel plate, and with U-bolt to retain pipe.
 8. Adjustable Pipe Saddle Supports (MSS Type 38): For stanchion-type support for pipes for sizes NPS 2-1/2 to NPS 36 if vertical adjustment is required, with steel-pipe base stanchion support and cast-iron floor flange.
- F. Vertical-Piping Clamps: Unless otherwise indicated and except as specified in piping system Sections, install the following types:
1. Extension Pipe or Riser Clamps (MSS Type 8): For support of pipe risers for sizes NPS 3/4 to NPS 24.
 2. Carbon- or Alloy-Steel Riser Clamps (MSS Type 42): For support of pipe risers for sizes NPS 3/4 to NPS 24, if longer ends are required for riser clamps.
- G. Hanger-Rod Attachments: Comply with NFPA requirements.
- H. Building Attachments: Comply with NFPA requirements. Unless otherwise indicated and except as specified in piping system Sections, install the following types:
1. Steel or Malleable-Concrete Inserts (MSS Type 18): For upper attachment to suspend pipe hangers from concrete ceiling.
 2. C-Clamps (MSS Type 23): For structural shapes.
 3. Side-Beam Brackets (MSS Type 34): For sides of steel or wooden beams.
- I. Comply with NFPA requirements for trapeze pipe-hanger selections and applications that are not specified in piping system Sections.
- J. Comply with MFMA-103 for metal framing system selections and applications that are not specified in piping system Sections.
- K. Use powder-actuated fasteners or mechanical-expansion anchors instead of building attachments where required in concrete construction.

END OF SECTION 210529

SECTION 21 0553 - IDENTIFICATION FOR FIRE-SUPPRESSION PIPING AND EQUIPMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:

- 1. Equipment labels.
 - 2. Warning signs and labels.
 - 3. Pipe labels.
 - 4. Valve tags.
 - 5. Warning tags.

- B. Related Sections:

- 1. Section 210517 "Sleeves and Sleeve Seals for Fire-Suppression Piping"
 - 2. Section 210518 "Escutcheons for Fire-Suppression Piping"
 - 3. Section 210523 "General Duty Valves for Fire Protection Piping"
 - 4. Section 210529 "Hangers and Supports for Fire Suppression Piping and Equipment"
 - 5. Section 211316 "Dry-Pipe Sprinkler Systems"
 - 6. Section 212200 "Clean Agent Fire Extinguishing Systems"

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Equipment-Label Schedule: Include a listing of all equipment to be labeled and the proposed content for each label.
- C. Valve Schedules: Valve numbering scheme.

1.4 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For each piping system to include in maintenance manuals.

PART 2 - PRODUCTS

2.1 EQUIPMENT LABELS

A. Metal Labels for Equipment:

1. Material and Thickness: Stainless steel, 0.025 inch thick, with predrilled holes for attachment hardware.
2. Letter Color: Black.
3. Background Color: Stainless Steel
4. Minimum Label Size: Length and width vary for required label content, but not less than 2-1/2 by 3/4 inch.
5. Minimum Letter Size: 1/4 inch for name of units if viewing distance is less than 24 inches, 1/2 inch for viewing distances up to 72 inches, and proportionately larger lettering for greater viewing distances. Include secondary lettering two-thirds to three-fourths the size of principal lettering.
6. Fasteners: Stainless-steel rivets or self-tapping screws.
7. Adhesive: Contact-type permanent adhesive, compatible with label and with substrate.

B. Label Content: Include equipment's Drawing designation or unique equipment number, Drawing numbers where equipment is indicated (plans, details, and schedules), and the Specification Section number and title where equipment is specified.

C. Equipment-Label Schedule: For each item of equipment to be labeled, on 8-1/2-by-11-inch bond paper. Tabulate equipment identification number and identify Drawing numbers where equipment is indicated (plans, details, and schedules) and the Specification Section number and title where equipment is specified. Equipment schedule shall be included in operation and maintenance data.

2.2 WARNING SIGNS AND LABELS

- A. Material and Thickness: Multilayer, multicolor, plastic labels for mechanical engraving, 1/16 inch thick, with predrilled holes for attachment hardware.
- B. Letter Color: Black.
- C. Background Color: Yellow.
- D. Maximum Temperature: Able to withstand temperatures up to 160 deg F.
- E. Minimum Label Size: Length and width vary for required label content, but not less than 2-1/2 by 3/4 inch.
- F. Minimum Letter Size: 1/4 inch for name of units if viewing distance is less than 24 inches, 1/2 inch for viewing distances up to 72 inches, and proportionately larger lettering for greater viewing distances. Include secondary lettering two-thirds to three-fourths the size of principal lettering.

- G. Fasteners: Stainless-steel rivets or self-tapping screws.
- H. Adhesive: Contact-type permanent adhesive, compatible with label and with substrate.
- I. Label Content: Include caution and warning information, plus emergency notification instructions.

2.3 PIPE LABELS

- A. Self-Adhesive Pipe Labels: Printed plastic with contact-type, permanent-adhesive backing.
- B. Pipe-Label Contents: Include identification of piping service using same designations or abbreviations as used on Drawings; pipe size; and an arrow indicating flow direction.
 - 1. Flow-Direction Arrows: Integral with piping-system service lettering to accommodate both directions, or as separate unit on each pipe label to indicate flow direction.
 - 2. Lettering Size: At least 1-1/2 inches high.
- C. Pipe-Label Colors:
 - 1. Background Color: Red.
 - 2. Letter Color: White.

2.4 VALVE TAGS

- A. Valve Tags: Stamped or engraved with 1/4-inch letters for piping-system abbreviation and 1/2-inch numbers.
 - 1. Tag Material: Brass, 0.032 inch thick, with predrilled holes for attachment hardware.
 - 2. Fasteners: Brass wire-link chain or S-hook.
 - 3. Valve-Tag Color: Red.
 - 4. Letter Color: White.
- B. Valve Schedules: For each piping system, on 8-1/2-by-11-inch bond paper. Tabulate valve number, piping system, system abbreviation (as shown on valve tag), location of valve (room or space), normal-operating position (open, closed, or modulating), and variations for identification. Mark valves for emergency shutoff and similar special uses.
 - 1. Valve-tag schedule shall be included in operation and maintenance data.

2.5 WARNING TAGS

- A. Warning Tags: Preprinted or partially preprinted, accident-prevention tags, of plasticized card stock with matte finish suitable for writing.
 - 1. Size: 3 by 5-1/4 inches minimum.
 - 2. Fasteners: Brass grommet and wire-link chain.

3. Nomenclature: Large-size primary caption such as "DANGER," "CAUTION," or "DO NOT OPERATE."
4. Color: Yellow background with black lettering.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Clean piping and equipment surfaces of substances that could impair bond of identification devices, including dirt, oil, grease, release agents, and incompatible primers, paints, and encapsulants.

3.2 GENERAL INSTALLATION REQUIREMENTS

- A. Coordinate installation of identifying devices with completion of covering and painting of surfaces where devices are to be installed.
- B. Coordinate installation of identifying devices with locations of access panels and doors.
- C. Install identifying devices before installing acoustical ceilings and similar concealment.

3.3 EQUIPMENT LABEL INSTALLATION

- A. Install or permanently fasten labels on each major item of mechanical equipment.
- B. Locate equipment labels where accessible and visible.

3.4 PIPE LABEL INSTALLATION

- A. Pipe-Label Locations: Locate pipe labels where piping is exposed or above accessible ceilings in finished spaces; machine rooms; accessible maintenance spaces such as shafts, tunnels, and plenums; and exterior exposed locations as follows:
 1. Near each valve and control device.
 2. Near each branch connection excluding short takeoffs. Where flow pattern is not obvious, mark each pipe at branch.
 3. Near penetrations through walls, floors, ceilings, and inaccessible enclosures.
 4. At access doors, manholes, and similar access points that permit view of concealed piping.
 5. Near major equipment items and other points of origination and termination.
 6. Spaced at maximum intervals of 50 feet along each run. Reduce intervals to 25 feet in areas of congested piping and equipment.
 7. On piping above removable acoustical ceilings. Omit intermediately spaced labels.

3.5 VALVE-TAG INSTALLATION

- A. Install tags on valves and control devices in piping systems. List tagged valves in a valve-tag schedule.
- B. Valve-Tag Application Schedule: Tag valves according to size, shape, and with captions similar to those indicated in "Valve-Tag Size and Shape" Subparagraph below:
 - 1. Valve-Tag Size and Shape:
 - a. Dry-Pipe Sprinkler System: 1-1/2 inches, round.
 - b. Clean Agent Fire Extinguishing System: 1-1/2 inches, round.

3.6 WARNING-TAG INSTALLATION

- A. Write required message on, and attach warning tags to, equipment and other items where required.

END OF SECTION 210553

SECTION 211316 - DRY-PIPE SPRINKLER SYSTEMS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:

1. Pipes, fittings, and specialties.
2. Fire-protection valves.
3. Sprinkler specialty pipe fittings.
4. Sprinklers.
5. Alarm devices.
6. Manual control stations.
7. Control panels.
8. Pressure gages.

- B. Related Sections:

1. Section 210517 "Sleeves and Sleeve Seals for Fire-Suppression Piping"
2. Section 210518 "Escutcheons for Fire-Suppression Piping"
3. Section 210523 "General Duty Valves for Fire Protection Piping"
4. Section 210529 "Hangers and Supports for Fire Suppression Piping and Equipment"
5. Section 210553 "Identification for Fire-Suppression Piping and Equipment"
6. Section 212200 "Clean Agent Fire Extinguishing Systems"

1.3 DEFINITIONS

- A. Standard-Pressure Sprinkler Piping: Dry-pipe sprinkler system piping designed to operate at working pressure 175 psig maximum.

1.4 SYSTEM DESCRIPTIONS

- A. Double-Interlock Pre-action Sprinkler System: Automatic sprinklers are attached to piping containing compressed air. A pneumatic actuator controlling a deluge valve is held closed by compressed air or nitrogen in the piping system AND a normally closed electric solenoid valve. Actuation of a fire-detection device (clean agent control panel) in the same area as sprinklers sends a signal to the releasing panel to release the solenoid valve holding closed the pneumatic actuator. Opening of sprinklers releases compressed air from the system and relieves the

pressure holding closed the pneumatic actuator. BOTH the fire detection system must activate AND the air pressure must be relieved from the system before the deluge valve will open and water will flow into the piping and discharge from open sprinkler heads.

1.5 PERFORMANCE REQUIREMENTS

- A. Standard-Pressure Piping System Component: Listed for 175-psig minimum working pressure.
- B. Delegated Design: Design sprinkler system(s), including comprehensive engineering analysis by a qualified professional engineer, using performance requirements and design criteria indicated.
- C. Sprinkler system design shall be approved by authorities having jurisdiction.
 - 1. Margin of Safety for Available Water Flow and Pressure: 10 percent, including losses through water-service piping, valves, and backflow preventers.
 - 2. Sprinkler Occupancy Hazard Classifications:
 - a. Mechanical Equipment Rooms: Ordinary Hazard, Group 1.
 - b. Office and Public Areas: Light Hazard.
 - c. Special Occupancy Hazard: As determined by NFPA 13 and authorities having jurisdiction.
 - 3. Minimum Density for Automatic-Sprinkler Piping Design:
 - a. Light-Hazard Occupancy: 0.10 gpm over 1500-sq. ft. area.
 - b. Ordinary-Hazard, Group 1 Occupancy: 0.15 gpm over 1500-sq. ft. area.
 - c. Special Occupancy Hazard: As determined by authorities having jurisdiction.
 - 4. Maximum Protection Area per Sprinkler: Per UL listing.
 - 5. Maximum Protection Area per Sprinkler:
 - a. Light Hazard Occupancy: 225 sq. ft..
 - b. Ordinary Hazard Occupancy: 130 sq. ft..
 - c. Other Areas: According to NFPA 13 recommendations unless otherwise indicated.
 - 6. Total Combined Hose-Stream Demand Requirement: According to NFPA 13 unless otherwise indicated:
 - a. Light-Hazard Occupancies: 100 gpm for 30 minutes.
 - b. Ordinary-Hazard Occupancies: 250 gpm for 60 to 90 minutes.

1.6 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated. Include rated capacities, operating characteristics, electrical characteristics, and furnished specialties and accessories.

- B. Shop Drawings: For dry-pipe sprinkler systems. Include plans, elevations, sections, details, and attachments to other work.
 - 1. Wiring Diagrams: For power, signal, and control wiring.
- C. Delegated-Design Submittal: For sprinkler systems indicated to comply with performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

1.7 INFORMATIONAL SUBMITTALS

- A. Coordination Drawings: Sprinkler systems, drawn to scale, on which the following items are shown and coordinated with each other, using input from installers of the items involved:
 - 1. Domestic water piping.
 - 2. HVAC hydronic piping.
 - 3. Items penetrating finished ceiling including the following:
 - a. Lighting fixtures.
 - b. Air outlets and inlets.
- B. Qualification Data: For qualified Installer and professional engineer.
- C. Approved Sprinkler Piping Drawings: Working plans, prepared according to NFPA 13, that have been approved by authorities having jurisdiction, including hydraulic calculations.
- D. Fire hydrant flow test must be performed within 12 months of permit plan submission. Perform fire-hydrant flow test report, record and submit the following information:
 - 1. Date
 - 2. Time
 - 3. Performed by
 - 4. Location of Residual Fire Hydrant R
 - 5. Location of Flow Fire Hydrant F
 - 6. Static Pressure at Residual Fire Hydrant R (psig)
 - 7. Measured Flow at Flow Fire Hydrant F (gpm)
 - 8. Residual Pressure at Residual Fire Hydrant R (psig)
- E. Field Test Reports and Certificates: Indicate and interpret test results for compliance with performance requirements and as described in NFPA 13. Include "Contractor's Material and Test Certificate for Aboveground Piping."
- F. Field quality-control reports.

1.8 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: For sprinkler specialties to include in emergency, operation, and maintenance manuals.

1.9 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Sprinkler Cabinets: Finished, wall-mounted, steel cabinet with hinged cover, and with space for minimum of six spare sprinklers plus sprinkler wrench. Include number of sprinklers required by NFPA 13 and sprinkler wrench. Include separate cabinet with sprinklers and wrench for each type of sprinkler used on Project.

1.10 QUALITY ASSURANCE

- A. Installer Qualifications:
 - 1. Installer's responsibilities include designing, fabricating, and installing sprinkler systems and providing professional engineering services needed to assume engineering responsibility. Base calculations on results of fire-hydrant flow test.
 - a. Engineering Responsibility: Preparation of working plans, calculations, and field test reports by a qualified professional engineer.
- B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- C. NFPA Standards: Sprinkler system equipment, specialties, accessories, installation, and testing shall comply with the following:
 - 1. NFPA 13, "Installation of Sprinkler Systems."

1.11 PROJECT CONDITIONS

- A. Interruption of Existing Sprinkler Service: Do not interrupt sprinkler service to facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary sprinkler service according to requirements indicated:
 - 1. Notify Owner no fewer than two days in advance of proposed interruption of sprinkler service.
 - 2. Do not proceed with interruption of sprinkler service without Owner's written permission.

1.12 COORDINATION

- A. Coordinate layout and installation of sprinklers with other construction that penetrates ceilings, including light fixtures, HVAC equipment, and partition assemblies.

PART 2 - PRODUCTS

2.1 PIPING MATERIALS

- A. Comply with requirements in "Piping Schedule" Article for applications of pipe, tube, and fitting materials, and joining methods for specific services, service locations, and pipe sizes.

2.2 STEEL PIPE AND FITTINGS

- A. Standard Weight, Galvanized-Steel Pipe: ASTM A 53/A 53M, Type E, Grade B. Pipe ends may be factory or field formed to match joining method.
- B. Galvanized-Steel Pipe Nipples: ASTM A 733, made of ASTM A 53/A 53M, standard-weight, seamless steel pipe with threaded ends.
- C. Galvanized, Steel Couplings: ASTM A 865, threaded.
- D. Galvanized, Gray-Iron Threaded Fittings: ASME B16.4, Class 125, standard pattern.
- E. Malleable- or Ductile-Iron Unions: UL 860.
- F. Cast-Iron Flanges: ASME B16.1, Class 125.
- G. Grooved-Joint, Steel-Pipe Appurtenances:
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Anvil International, Inc.
 - b. Corcoran Piping System Co.
 - c. National Fittings, Inc.
 - d. Shurjoint Piping Products.
 - e. Tyco Fire & Building Products LP.
 - f. Victaulic Company.
 - 2. Pressure Rating: 175 psig minimum.
 - 3. Galvanized, Grooved-End Fittings for Steel Piping: ASTM A 47/A 47M, malleable-iron casting or ASTM A 536, ductile-iron casting; with dimensions matching steel pipe.
 - 4. Grooved-End-Pipe Couplings for Steel Piping: AWWA C606 and UL 213, rigid pattern, unless otherwise indicated, for steel-pipe dimensions. Include ferrous housing sections, EPDM-rubber gasket, and bolts and nuts.

2.3 PIPING JOINING MATERIALS

- A. Pipe-Flange Gasket Materials: AWWA C110, rubber, flat face, 1/8 inch thick.
 - 1. Class 125, Cast-Iron and Class 150, Bronze Flat-Face Flanges: Full-face gaskets.

2. Class 250, Cast-Iron and Class 300, Raised-Face Flanges: Ring-type gaskets.

- B. Metal, Pipe-Flange Bolts and Nuts: ASME B18.2.1, carbon steel unless otherwise indicated.

2.4 LISTED FIRE-PROTECTION VALVES

- A. General Requirements:

1. Valves shall be UL listed or FM approved.
2. Minimum Pressure Rating for Standard-Pressure Piping: 175 psig.

- B. Ball Valves:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Anvil International, Inc.
 - b. NIBCO INC.
 - c. Victaulic Company.
2. Standard: UL 1091 except with ball instead of disc.
3. Valves NPS 1-1/2 and Smaller: Bronze body with threaded ends.
4. Valves NPS 2 and NPS 2-1/2: Bronze body with threaded ends or ductile-iron body with grooved ends.
5. Valves NPS 3: Ductile-iron body with grooved ends.

- C. Check Valves:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Anvil International, Inc.
 - b. Crane Co.; Crane Valve Group; Crane Valves.
 - c. Fire Protection Products, Inc.
 - d. Globe Fire Sprinkler Corporation.
 - e. Milwaukee Valve Company.
 - f. Mueller Co.; Water Products Division.
 - g. NIBCO INC.
 - h. Potter Roemer.
 - i. Reliable Automatic Sprinkler Co., Inc.
 - j. Tyco Fire & Building Products LP.
 - k. United Brass Works, Inc.
 - l. Victaulic Company.
 - m. Viking Corporation.
 - n. Watts Water Technologies, Inc.
2. Standard: UL 312
3. Pressure Rating: 250 psig minimum.

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4. Type: Swing check.
5. Body Material: Cast iron.
6. End Connections: Flanged or grooved.

D. Bronze OS&Y Gate Valves:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Crane Co.; Crane Valve Group; Crane Valves.
 - b. Milwaukee Valve Company.
 - c. NIBCO INC.
 - d. United Brass Works, Inc.
2. Standard: UL 262.
3. Pressure Rating: 175 psig.
4. Body Material: Bronze.
5. End Connections: Threaded.

E. Iron OS&Y Gate Valves:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Crane Co.; Crane Valve Group; Crane Valves.
 - b. Milwaukee Valve Company.
 - c. Mueller Co.; Water Products Division.
 - d. NIBCO INC.
 - e. Tyco Fire & Building Products LP.
 - f. United Brass Works, Inc.
 - g. Watts Water Technologies, Inc.
2. Standard: UL 262.
3. Pressure Rating: 250 psig minimum.
4. Body Material: Cast or ductile iron.
5. End Connections: Flanged or grooved.

F. NRS Gate Valves:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Crane Co.; Crane Valve Group; Stockham Division.
 - b. Mueller Co.; Water Products Division.
 - c. NIBCO INC.
 - d. Tyco Fire & Building Products LP.
2. Standard: UL 262.
3. Pressure Rating: 250 psig minimum.

4. Body Material: Cast iron with indicator post flange.
5. Stem: Non-rising.
6. End Connections: Flanged or grooved.

2.5 TRIM AND DRAIN VALVES

A. General Requirements:

1. Standard: UL's "Fire Protection Equipment Directory" listing or "Approval Guide," published by FM Global, listing.
2. Pressure Rating: 175 psig minimum.

B. Angle Valves:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Fire Protection Products, Inc.
 - b. United Brass Works, Inc.

C. Ball Valves:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Anvil International, Inc.
 - b. Fire-End & Croker Corporation.
 - c. Fire Protection Products, Inc.
 - d. Milwaukee Valve Company.
 - e. NIBCO INC.
 - f. Potter Roemer.
 - g. Tyco Fire & Building Products LP.
 - h. Victaulic Company.
 - i. Watts Water Technologies, Inc.
2. Port Size: Full

D. Globe Valves:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Fire Protection Products, Inc.
 - b. United Brass Works, Inc.

E. Plug Valves:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Southern Manufacturing Group.

2.6 SPECIALTY VALVES

A. General Requirements:

1. Standard: UL's "Fire Protection Equipment Directory" listing or "Approval Guide," published by FM Global, listing.
2. Pressure Rating:
 - a. Standard-Pressure Piping Specialty Valves: 175 psig minimum.
 - b. High-Pressure Piping Specialty Valves: 250 psig minimum.
3. Body Material: Cast or ductile iron.
4. Size: Same as connected piping.
5. End Connections: Flanged or grooved.

B. Deluge Valves:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. AFAC Inc.
 - b. BERMAD Control Valves.
 - c. CLA-VAL Automatic Control Valves.
 - d. Globe Fire Sprinkler Corporation.
 - e. OCV Control Valves.
 - f. Reliable Automatic Sprinkler Co., Inc.
 - g. Tyco Fire & Building Products LP.
 - h. Venus Fire Protection Ltd.
 - i. Victaulic Company.
 - j. Viking Corporation.
2. Standard: UL 260.
3. Design: Hydraulically operated, differential-pressure type.
4. Include trim sets for bypass, drain, electrical sprinkler alarm switch, pressure gages, drip cup assembly piped without valves and separate from main drain line, fill-line attachment with strainer, and push-rod chamber supply connection.
5. Dry, Pilot-Line Trim Set: Include dry, pneumatic actuator; air- and water-pressure gages; low-air-pressure warning switch; air relief valve; and actuation device. Dry, pilot-line actuator includes cast-iron, operated, diaphragm-type valve with resilient facing plate, resilient diaphragm, and replaceable bronze seat. Valve includes threaded water and air inlets and water outlet. Pneumatic actuator must receive a signal from fire detection system (clean agent panel) and a loss of air pressure on dry, pilot line side to allow actuator to open and water to flow into valve.

6. Air-Pressure Maintenance Device:

- a. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1) AFAC Inc.
 - 2) Globe Fire Sprinkler Corporation.
 - 3) Reliable Automatic Sprinkler Co., Inc.
 - 4) Tyco Fire & Building Products LP.
 - 5) Venus Fire Protection Ltd.
 - 6) Victaulic Company.
 - 7) Viking Corporation.
- b. Standard: UL 260.
- c. Type: Automatic device to maintain minimum air pressure in piping.
- d. Include shutoff valves to permit servicing without shutting down sprinkler piping, bypass valve for quick filling, pressure regulator or switch to maintain pressure, strainer, pressure ratings with 14- to 60-psig adjustable range, and 175-psig outlet pressure.

7. Air Compressor:

- a. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1) Gast Manufacturing Inc.
 - 2) General Air Products, Inc,
 - 3) Viking Corporation.
- b. Standard: UL's "Fire Protection Equipment Directory" listing or "Approval Guide," published by FM Global, listing.
- c. Motor Horsepower: Fractional.
- d. Power: 120-V ac, 60 Hz, single phase.

C. Automatic (Ball Drip) Drain Valves:

- 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. AFAC Inc.
 - b. Reliable Automatic Sprinkler Co., Inc.
 - c. Tyco Fire & Building Products LP.
- 2. Standard: UL 1726.
- 3. Pressure Rating: 175 psig minimum.
- 4. Type: Automatic draining, ball check.
- 5. Size: NPS 3/4.
- 6. End Connections: Threaded.

2.7 SPRINKLER SPECIALTY PIPE FITTINGS

- A. General Requirements for Dry-Pipe-System Fittings: UL listed for dry-pipe service.
- B. Branch Outlet Fittings:
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Anvil International, Inc.
 - b. National Fittings, Inc.
 - c. Tyco Fire & Building Products LP.
 - d. Victaulic Company.
 - 2. Standard: UL 213.
 - 3. Pressure Rating: 175 psig minimum.
 - 4. Body Material: Ductile-iron housing with EPDM seals and bolts and nuts.
 - 5. Type: Mechanical-T and -cross fittings.
 - 6. Configurations: Snap-on and strapless, ductile-iron housing with branch outlets.
 - 7. Size: Of dimension to fit onto sprinkler main and with outlet connections as required to match connected branch piping.
 - 8. Branch Outlets: Grooved, plain-end pipe, or threaded.
- C. Flow Detection and Test Assemblies:
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. AGF Manufacturing Inc.
 - b. Globe Fire Sprinkler Corporation.
 - c. Reliable Automatic Sprinkler Co., Inc.
 - d. Tyco Fire & Building Products LP.
 - e. Victaulic Company.
 - 2. Standard: UL's "Fire Protection Equipment Directory" listing or "Approval Guide," published by FM Global, listing.
 - 3. Pressure Rating: 175 psig minimum.
 - 4. Body Material: Cast- or ductile-iron housing with orifice, sight glass, and integral test valve.
 - 5. Size: Same as connected piping.
 - 6. Inlet and Outlet: Threaded.
- D. Sprinkler Inspector's Test Fittings:
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. AGF Manufacturing Inc.
 - b. Globe Fire Sprinkler Corporation.

- c. Triple R Specialty.
 - d. Tyco Fire & Building Products LP.
 - e. Victaulic Company.
 - f. Viking Corporation.
2. Standard: UL's "Fire Protection Equipment Directory" listing or "Approval Guide," published by FM Global, listing.
 3. Pressure Rating: 175 psig minimum.
 4. Body Material: Cast- or ductile-iron housing with integral sight glass.
 5. Valve Type: Multi-position valve with positions for closed, test and drain.
 - a. "Test Position shall be equivalent to a ½" sprinkler orifice discharge.
 6. Size: 1 inch inlet and outlet.
 7. Inlet and Outlet: Threaded.

E. Adjustable Drop Nipples:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. CECA, LLC.
 - b. Corcoran Piping System Co.
 - c. Merit Manufacturing; a division of Anvil International, Inc.
2. Standard: UL 1474.
3. Pressure Rating: 250 psig minimum.
4. Body Material: Steel pipe with EPDM O-ring seals.
5. Size: Same as connected piping.
6. Length: Adjustable.
7. Inlet and Outlet: Threaded.

2.8 SPRINKLERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
1. Globe Fire Sprinkler Corporation.
 2. Reliable Automatic Sprinkler Co., Inc.
 3. Tyco Fire & Building Products LP.
 4. Victaulic Company.
 5. Viking Corporation.
- B. General Requirements:
1. Standard: UL's "Fire Protection Equipment Directory" listing or "Approval Guide," published by FM Global, listing.
 2. Pressure Rating for Automatic Sprinklers: 175 psig minimum.

C. Automatic Sprinklers with Heat-Responsive Element:

1. Nonresidential Applications: UL 199.
2. Characteristics: Nominal 1/2-inch orifice with discharge coefficient K of 5.6, and for "Ordinary" temperature classification rating unless otherwise indicated or required by application.

D. Sprinkler Finishes:

1. Chrome plated.
2. Bronze.
3. Painted.

E. Corrosion resistant coatings to be one of the following unless indicated otherwise on plans:

1. Electroless Nickel PTFE Plated
2. Nickel/Teflon coating

F. Sprinkler Escutcheons: Materials, types, and finishes for the following sprinkler mounting applications. Escutcheons for concealed, flush, and recessed-type sprinklers are specified with sprinklers.

1. Ceiling or Sidewall Mounting: Plastic, white finish, one piece, flat to match sprinkler finish.
2. Outdoor or in areas exposed to moisture: Non-corrosive to match sprinkler head finish.

G. Sprinkler Guards:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Globe Fire Sprinkler Corporation.
 - b. Reliable Automatic Sprinkler Co., Inc.
 - c. Tyco Fire & Building Products LP.
 - d. Victaulic Company.
 - e. Viking Corporation.
2. Standard: UL 199.
3. Type: Wire cage with fastening device for attaching to sprinkler.

2.9 ALARM DEVICES

A. Alarm-device types shall match piping and equipment connections.

B. Electrically Operated Alarm Bell:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

- a. Fire-Lite Alarms; a Honeywell company.
 - b. Notifier; a Honeywell company.
 - c. Potter Electric Signal Company.
2. Standard: UL 464.
 3. Type: Vibrating, metal alarm bell.
 4. Size: 8-inch minimum diameter.
 5. Finish: Red-enamel factory finish, suitable for outdoor use.

C. Pressure Switches:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Potter Electric Signal Company.
 - b. System Sensor; a Honeywell company.
 - c. Tyco Fire & Building Products LP.
 - d. Viking Corporation.
2. Standard: UL 346.
3. Type: Electrically supervised water-flow switch with retard feature.
4. Components: Single-pole, double-throw switch with normally closed contacts.
5. Design Operation: Rising pressure signals water flow.

D. Valve Supervisory Switches:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Fire-Lite Alarms; a Honeywell company.
 - b. Kennedy Valve; a division of McWane, Inc.
 - c. Potter Electric Signal Company.
 - d. System Sensor; a Honeywell company.
2. Standard: UL 346.
3. Type: Electrically supervised.
4. Components: Single-pole, double-throw switch with normally closed contacts.
5. Design: Signals that controlled valve is in other than fully open position.

2.10 MANUAL CONTROL STATIONS

- A. Standard: UL listed or FM Global approved.
- B. Hydraulic operation, with union, NPS 1/2 pipe nipple, and bronze ball valve. Include metal enclosure labeled "MANUAL CONTROL STATION" with operating instructions and cover held closed by breakable strut to prevent accidental opening.

- C. Electric operation, metal enclosure, labeled "MANUAL CONTROL STATION" with operating instructions and cover held closed by breakable strut to prevent accidental opening.

2.11 CONTROL PANELS

- A. Description: Single-area, two-area, or single-area cross-zoned type control panel as indicated, including NEMA ICS 6, Type 1 enclosure, detector, alarm, and solenoid-valve circuitry for operation of deluge valves. Panels contain power supply; battery charger; standby batteries; field-wiring terminal strip; electrically supervised solenoid valves and polarized fire-alarm bell; lamp test facility; single-pole, double-throw auxiliary alarm contacts; and rectifier.
 - 1. Panels: UL listed and FM Global approved when used with thermal detectors and Class A detector circuit wiring. Electrical characteristics are 120-V ac, 60 Hz, with 24-V dc rechargeable batteries.

2.12 PRESSURE GAGES

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. AMETEK, Inc.; U.S. Gauge Division.
 - 2. Ashcroft, Inc.
 - 3. Brecco Corporation.
 - 4. WIKA Instrument Corporation.
- B. Minimum Requirements:
 - 1. Standard: UL 393.
 - 2. Dial Size: 3-1/2- to 4-1/2-inch diameter.
 - 3. Pressure Gage Range: 0 to 250 psig minimum.
 - 4. Water System Piping Gage: Include "WATER" or "AIR/WATER" label on dial face.
 - 5. Air System Piping Gage: Include retard feature and "AIR" or "AIR/WATER" label on dial face.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Perform fire-hydrant flow test according to NFPA 13 and NFPA 291. Use results for system design calculations required in "Quality Assurance" Article.
- B. Report test results promptly and in writing.

3.2 WATER-SUPPLY CONNECTIONS

- A. Install shutoff valve, pressure gage, drain, and other accessories indicated at connection to water-distribution piping.

3.3 PIPING INSTALLATION

- A. Locations and Arrangements: Drawing plans, schematics, and diagrams indicate general location and arrangement of piping. Install piping as indicated, as far as practical.
 - 1. Deviations from approved working plans for piping require written approval from authorities having jurisdiction. File written approval with Architect before deviating from approved working plans.
- B. Piping Standard: Comply with requirements in NFPA 13 for installation of sprinkler piping.
- C. Use listed fittings to make changes in direction, branch takeoffs from mains, and reductions in pipe sizes.
- D. Install unions adjacent to each valve in pipes NPS 2 and smaller.
- E. Install flanges, flange adapters, or couplings for grooved-end piping on valves, apparatus, and equipment having NPS 2-1/2 and larger end connections.
- F. Install Inspectors Test Valve and drain directly after the hydraulically most remote sprinkler head of each dry system. Route drain piping to nearest floor drain or exterior, refer to drawings. Test valve to be located and installed according to NFPA 13.
- G. Install sprinkler piping with drains for complete system drainage. All outdoor piping or piping exposed to freezing temperatures shall have a dry system auxiliary drain for every low point in the system. No water shall be allowed to be trapped.
- H. Connect compressed-air supply to dry-pipe sprinkler piping.
- I. Connect air compressor to the following piping and wiring:
 - 1. Pressure gages and controls.
 - 2. Electrical power system.
 - 3. Fire-alarm devices, including low-pressure alarm.
- J. Install alarm devices in piping systems.
- K. Install hangers and supports for sprinkler system piping according to NFPA 13. Comply with requirements in NFPA 13 for hanger materials.
- L. Install pressure gages on riser or feed main, at each sprinkler test connection, and at top of each standpipe. Include pressure gages with connection not less than NPS 1/4 and with soft metal seated globe valve, arranged for draining pipe between gage and valve. Install gages to permit removal, and install where they will not be subject to freezing.
- M. Drain dry-pipe sprinkler piping.

- N. Pressurize and check dry-pipe sprinkler system piping, air-pressure maintenance devices and air compressors.
- O. Install sleeves for piping penetrations of walls, ceilings, and floors. Comply with requirements for sleeves specified in Section 210517 "Sleeves and Sleeve Seals for Fire-Suppression Piping."
- P. Install escutcheons for piping penetrations of walls, ceilings, and floors. Comply with requirements for escutcheons specified in Section 210518 "Escutcheons for Fire-Suppression Piping."

3.4 JOINT CONSTRUCTION

- A. Install couplings, flanges, flanged fittings, unions, nipples, and transition and special fittings that have finish and pressure ratings same as or higher than system's pressure rating for aboveground applications unless otherwise indicated.
- B. Install unions adjacent to each valve in pipes NPS 2 and smaller.
- C. Install flanges, flange adapters, or couplings for grooved-end piping on valves, apparatus, and equipment having NPS 2-1/2 and larger end connections.
- D. Ream ends of pipes and tubes and remove burrs. Bevel plain ends of steel pipe.
- E. Remove scale, slag, dirt, and debris from inside and outside of pipes, tubes, and fittings before assembly.
- F. Flanged Joints: Select appropriate gasket material in size, type, and thickness suitable for water service. Join flanges with gasket and bolts according to ASME B31.9.
- G. Threaded Joints: Thread pipe with tapered pipe threads according to ASME B1.20.1. Cut threads full and clean using sharp dies. Ream threaded pipe ends to remove burrs and restore full ID. Join pipe fittings and valves as follows:
 - 1. Apply appropriate tape or thread compound to external pipe threads.
 - 2. Damaged Threads: Do not use pipe or pipe fittings with threads that are corroded or damaged.
- H. Steel-Piping, Cut-Grooved Joints: Cut square-edge groove in end of pipe according to AWWA C606. Assemble coupling with housing, gasket, lubricant, and bolts. Join steel pipe and grooved-end fittings according to AWWA C606 for steel-pipe joints.
- I. Dissimilar-Material Piping Joints: Make joints using adapters compatible with materials of both piping systems.

3.5 VALVE AND SPECIALTIES INSTALLATION

- A. Install listed fire-protection valves, trim and drain valves, specialty valves and trim, controls, and specialties according to NFPA 13 and authorities having jurisdiction.

- B. Install listed fire-protection shutoff valves supervised open, located to control sources of water supply except from fire-department connections. Install permanent identification signs indicating portion of system controlled by each valve.
- C. Install check valve in each water-supply connection. Install backflow preventers instead of check valves in potable-water-supply sources.
- D. Specialty Valves:
 - 1. General Requirements: Install in vertical position for proper direction of flow, in main supply to system.
 - 2. Deluge Valves: Install trim sets for air supply, drain, priming level, alarm connections, ball drip valves, pressure gages, priming chamber attachment, and fill-line attachment.
 - a. Install air compressor and compressed-air supply piping.
 - b. Air-Pressure Maintenance Device: Install shutoff valves to permit servicing without shutting down sprinkler system; bypass valve for quick system filling; pressure regulator or switch to maintain system pressure; strainer; pressure ratings with 14- to 60-psig adjustable range; and 175-psig maximum inlet pressure.

3.6 SPRINKLER INSTALLATION

- A. Install sprinklers in suspended ceilings in center of narrow dimension of acoustical ceiling panels.
- B. Install sprinkler guards on sprinklers that are installed at or below 78 inches, or as indicated on plans.
- C. Dry-barrel type sprinkler heads shall be field measured to confirm final barrel length prior to ordering.

3.7 IDENTIFICATION

- A. Install labeling and pipe markers on equipment and piping according to requirements in NFPA 13.
- B. Identify system components, wiring, cabling, and terminals. Comply with requirements for identification specified in Section 260553 "Identification for Electrical Systems."

3.8 FIELD QUALITY CONTROL

- A. Perform tests and inspections.
- B. Tests and Inspections:
 - 1. Leak Test: After installation, charge systems and test for leaks. Repair leaks and retest until no leaks exist.

2. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
 3. Flush, test, and inspect sprinkler systems according to NFPA 13, "Systems Acceptance" Chapter.
 4. Energize circuits to electrical equipment and devices.
 5. Start and run air compressors.
 6. Coordinate with fire-alarm tests. Operate as required.
 7. Verify that equipment hose threads are same as local fire-department equipment.
- C. Sprinkler piping system will be considered defective if it does not pass tests and inspections.
- D. Prepare test and inspection reports.

3.9 CLEANING

- A. Clean dirt and debris from sprinklers.
- B. Remove and replace sprinklers with paint other than factory finish.

3.10 DEMONSTRATION

- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain specialty valves.

3.11 PIPING SCHEDULE

- A. Sprinkler specialty fittings may be used, downstream of control valves, instead of specified fittings.
- B. Standard-pressure, dry-pipe sprinkler system, NPS 2½" and smaller, shall be the following:
 1. Standard-weight, galvanized-steel pipe with threaded ends; galvanized, gray-iron threaded fittings; and threaded joints.
- C. Standard-pressure, dry-pipe sprinkler system, NPS 3 to NPS 6, shall be the following:
 1. Standard-weight, galvanized-steel pipe with cut-grooved ends; galvanized, grooved-end fittings for steel piping; grooved-end-pipe couplings for steel piping; and grooved joints.
- D. Drain Piping NPS 2 and smaller, shall be the following:
 1. Standard-weight, galvanized-steel pipe with threaded ends; galvanized, gray-iron threaded fittings; and threaded joints.

3.12 SPRINKLER SCHEDULE

Cattaraugus County Jail
Sheriff's Office Fire Protection Improvements
Little Valley, NY
Wendel Project No. 307661

- A. Provide quick response sprinkler heads for light and ordinary hazard areas and standard response sprinkler heads for extra hazard areas, unless prohibited by NFPA 13 or otherwise indicated.
- B. Use sprinkler types with finishes indicated in subparagraphs below for the following applications unless indicated otherwise on plans:
 - 1. Spaces with Ceilings: Dry-barrel type Semi-Recessed pendant sprinkler, white polyester finish with white escutcheon.
 - 2. Wall Mounting: Dry-barrel type semi-recessed sidewall sprinkler, white polyester finish with white escutcheon.
 - 3. Finished Spaces without Ceilings: Upright sprinklers with white or chrome plated finish.
 - 4. Unfinished Spaces without Ceilings: Upright sprinklers with rough bronze finish.
 - 5. Special Applications: Extended-coverage, flow-control and ESFR sprinklers where indicated with finish to match other heads in space or in accordance with finishes above.
 - 6. Corrosive Environments: Corrosion resistant finish shall be factory applied to all heads exposed to acids, chemical, moisture or other corrosive fumes.
- C. Sprinklers for light and ordinary hazard classification areas shall be ordinary temperature heads with a red glass bulb and a minimum temperature rating of 155°F, unless indicated otherwise on drawings.

END OF SECTION 211316

SECTION 212200 - CLEAN-AGENT FIRE-EXTINGUISHING SYSTEMS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:

1. Piping and piping specialties.
2. Extinguishing-agent containers.
3. Extinguishing agent.
4. Detection and alarm devices.
5. Control and alarm panels.
6. Accessories.
7. Connection devices for and wiring between system components.
8. Connection devices for power and integration into building's fire-alarm system.

1.3 DEFINITIONS

- A. ATS: Acceptance Testing Specifications.
- B. EPO: Emergency Power Off.
- C. FK-5-1-12: Clean agent chemical commonly known as Novec 1230

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Shop Drawings: For clean-agent fire-extinguishing system signed and sealed by a qualified professional engineer.
 1. Include plans, elevations, sections, details, and attachments to other work.
 2. Include design calculations.
 3. Detail equipment assemblies and indicate dimensions, weights, loads, required clearances, method of field assembly, components, and location and size of each field connection.
 4. Wiring Diagrams: For power, signal, and control wiring.

- C. Delegated-Design Submittal: For clean-agent fire-extinguishing system signed and sealed by the qualified professional engineer.
1. Working plans indicating detailed layout of system, locating each component (i.e. Agent cylinder(s), control panel, electric/manual pull station, audible and visual alarms, etc.). Include control diagrams, wiring diagrams, written sequence of operations along with battery calculations, and pipe locations including sizing and length.
 2. Product data for each piece of equipment comprising the system including storage cylinders, control valves and pilot controls, control panels, nozzles, manual stations, detectors, alarm bells or horns, switches, and annunciators.
 3. Indicate compliance with performance requirements and design criteria, including analysis data. Analysis shall include calculations to verify system terminal pressures, nozzle flow rates, orifice code number, piping pressure losses, component flow data and pipe sizes considering actual and equivalent lengths of pipe and elevation changes.
 4. Include design calculations for weight, volume, and concentration of extinguishing agent required for each hazard area.
 5. Indicate the Following on Reflected Ceiling Plans:
 - a. Ceiling penetrations and ceiling-mounted items.
 - b. Piping and discharge nozzles, detectors, and accessories.
 - c. Method of attaching hangers to building structure.
 - d. Other ceiling-mounted items including light fixtures, diffusers, grilles, speakers, sprinklers, and access panels.
 6. Indicate the Following on Floor Plans:
 - a. Controls and alarms.
 - b. Extinguishing-agent containers, piping and discharge nozzles if mounted in space, detectors, and accessories.
 - c. Equipment and furnishings.

1.5 INFORMATIONAL SUBMITTALS

- A. Coordination Drawings: Sprinkler systems, drawn to scale, on which the following items are shown and coordinated with each other, using input from Installers of the items involved:
1. Structural Steel
 2. Domestic water piping.
 3. HVAC Duct
 4. Items Penetrating Finished Ceiling, including but not limited to the following:
 - a. Lighting fixtures.
 - b. Air outlets and inlets.
 - c. Exit Signs
 - d. Smoke Detectors
- B. Permit Approved Drawings: Working plans, prepared according to NFPA 2001, that have been approved by authorities having jurisdiction. Include design calculations.

- C. Field quality-control reports.

1.6 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: Prior to final acceptance, the installing contractor shall provide complete operation and maintenance instruction manuals, four (4) copies for each system, to the owner. All aspects of system operation and maintenance shall be detailed, including piping isometrics, wiring diagrams of all circuits, a written description of the system design, sequence of operation and drawing(s) illustrating control logic and equipment used in the system. Checklists and procedures for emergency situations, troubleshooting techniques, maintenance operations and procedures shall be included in the manual.
- B. Upon completion of each system, the installing contractor shall provide four (4) copies of system "As-Built" drawings to the owner. The drawings shall show actual installation details including all equipment locations (e.g. control panel(s), agent container(s), detectors, alarms, manuals and aborts, etc.) as well as piping and conduit routing details. Show all room or facilities modifications, including door and/or damper installations completed.
- C. Test Plan describing procedures to be used to test the control systems. Refer to section 3.6 below.

1.7 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents. Deliver extra materials to Owner.
 - 1. Detection Devices: Not less than 20 percent of amount of each type installed.
 - 2. Container Valves: Not less than 10 percent of amount of each size and type installed.
 - 3. Nozzles: Not less than 20 percent of amount of each type installed.
 - 4. Extinguishing Agent: Not less than 100 percent of amount installed in largest hazard area. Include pressure-rated containers with valves.

1.8 QUALITY ASSURANCE

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- B. FM Global Compliance: Provide components that are FM Approved and that are listed in FM Global's "Approval Guide."
- C. UL Compliance: Provide equipment listed in UL's "Fire Protection Equipment Directory."

1.9 WARRANTY

- A. All components furnished and installed under this contract shall be warranted against defects in design, materials and workmanship for the full warranty period which is standard with the manufacturer, but in no case less than one (1) year from the date of system acceptance.

PART 2 - PRODUCTS

2.1 CLEAN-AGENT SYSTEMS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. Ansul Incorporated.
 - 2. Chemetron Fire Systems; a UTC Fire & Security company.
 - 3. Minimax USA LLC (MX-1230 Basis of Design)
 - 4. Viking Corporation;
- B. Description: Clean-agent fire-extinguishing system shall be an engineered system for total flooding of the hazard area utilizing Novec 1230 fluid at 725psi. System is a fixed installation where equipment is designed and installed to provide fire extinguishing capability for hazards described.
- C. Delegated Design: Design clean-agent fire-extinguishing system and obtain approval from authorities having jurisdiction. The system shall provide a minimum agent design concentration of 4.5% by volume for Class A hazards, a minimum of 5.85% by volume for Class B hazards, and a minimum 4.5% by volume for Class C hazards, in all areas and/or protected spaces, at the minimum anticipated temperature within the protected area. The system shall not exceed 10% for normally occupied spaces, adjusted for maximum space temperature anticipated, with provision for room evacuation before agent release. Concentration may vary depending on the AHJ but may never be less than the 4.5% for Class A and Class C and may never be less than 5.85% for Class B.
- D. Performance Requirements: Discharge Novec 1230 within 10 seconds and maintain 7.1 percent concentration by volume at 70° F for 10-minute holding time in hazard areas.
- E. The system shall be actuated by a combination of ionization and/or photoelectric detectors installed for maximum area coverage of 250 sq.ft. per detector. Refer to electrical documents for detector location and information.
- F. Verified Detection: Devices located in single zone. Sound alarm on activating single-detection device, and discharge extinguishing agent on actuating second-detection device.
- G. System Operating Sequence:

1. Actuating First Detector: Visual indication on control panel. Energize audible and visual alarms (slow pulse) inside the protected area, shut down air-conditioning and ventilating systems serving protected area, and send signal to fire-alarm system.
 2. Actuating Second Detector: Visual indication on annunciator panel. Energize audible and visual alarms (fast pulse) inside the protected area, start time delay for extinguishing-agent discharge for 20 seconds (adjustable), and discharge extinguishing agent.
 3. Extinguishing-agent discharge will operate audible alarms and strobe lights inside and outside the protected area.
- H. Manual stations shall immediately discharge extinguishing agent when activated.
- I. Operating abort switches will delay extinguishing-agent discharge while being activated, and switches must be reset to prevent agent discharge. Release of hand pressure on the switch will cause agent discharge if the time delay has expired.
- J. Low-Agent Pressure Switch: Initiate trouble alarm if sensing less than set pressure.

2.2 PIPING MATERIALS

- A. Distribution piping, and fittings, shall be installed in accordance with the manufacturer's requirements, NFPA 2001 and approved piping standards and guidelines. All distribution piping shall be installed by qualified individuals using accepted practices and quality procedures. All piping shall be adequately supported and anchored at all directional changes and nozzle locations. The piping shall be laid out to give maximum flow and to avoid possible mechanical, chemical or other damage. Installation shall follow drawings as closely as possible. System designer must be consulted for anything other than minor deviations in pipe routing.

2.3 PIPE AND FITTINGS

- A. Black or galvanized steel pipe shall be either ASTM A53 seamless or electric welded, Grade A or B or ASTM A-106, Grade A, B, or C. ASTM A-120, ordinary cast-iron pipe, aluminum pipe, or non-metallic pipe shall not be used. Stainless steel pipe shall be 304, 316, 304L, or 316L for threaded connections or 304L or 316L for welded connections.
1. Threaded Fittings must comply with NFPA 2001:
 - a. Malleable-Iron Fittings: ASME B16.3, Class 300.
 - b. Flanges and Flanged Fittings: ASME B16.5, Class 300 unless Class 600 is indicated.
 - c. Fittings Working Pressure: 620 psig minimum.
 - d. Flanged Joints: Class 300 minimum.
 2. Forged-Steel Welding Fittings: ASME B16.11, Class 3000, socket pattern.
 3. Steel, Grooved-End Fittings must comply with NFPA 2001: FM Approved and NRTL listed, ASTM A 47/A 47M malleable iron or ASTM A 536 ductile iron, with dimensions matching steel pipe and ends factory grooved according to AWWA C606.

- B. Pipe-Flange Gasket Materials: Suitable for use with Novec 1230 fluid.
 - 1. ASME B16.21, nonmetallic, flat, asbestos-free, 1/8-inch maximum thickness unless thickness or specific material is indicated.
 - 2. EPDM with a temperature range of -30°F to 230°F.
 - 3. Gasket lubricant must be in accordance with manufacturer's specifications.
- C. Flange Bolts and Nuts: ASME B18.2.1, carbon steel.
- D. Welding Filler Metals: Comply with AWS D10.12M/D10.12 for welding materials appropriate for wall thickness and chemical analysis of steel pipe being welded.
- E. The minimum allowable working pressure at 70°F for pipe and fittings in closed sections of pipe must be greater than or equal to the maximum operating pressure of the discharge pipe safety relief valve.
- F. Reductions in pipe size may be accomplished using threaded or grooved concentric reducing fittings, steel or stainless steel concentric swage fittings, or steel or stainless steel reducing bushings. All such fittings must comply with NFPA 2001. Pipe reductions can be made using machined or forged steel hex bushings.
- G. All screwed pipe shall be coated with Teflon tape.

2.4 VALVES

- A. General Valve Requirements:
 - 1. UL listed or FM Approved for use in fire-protection systems.
 - 2. Compatible with Novec 1230 fluid.
- B. Container Valves: With rupture disc or solenoid and manual-release lever, capable of immediate and total agent discharge and suitable for intended flow capacity.
- C. Valves in Sections of Closed Piping and Manifolds: Fabricate to prevent entrapment of liquid, or install valve and separate pressure relief device.
- D. Valves in Manifolds: Check valve; installed to prevent loss of extinguishing agent when container is removed from manifold.

2.5 EXTINGUISHING-AGENT CONTAINERS

- A. Description: Steel tanks complying with ASME Boiler and Pressure Vessel Code: Section VIII, for unfired pressure vessels. Include minimum working-pressure rating that matches system charging pressure, valve, pressure switch, and pressure gage.
 - 1. Finish: Red or Manufacturer's standard color, enamel or epoxy paint.

2. Manifold: Fabricate with valves, pressure switches, and connections for multiple storage containers, as indicated.
3. Storage-Tank Brackets: Factory- or field-fabricated retaining brackets consisting of steel straps and channels; suitable for container support, maintenance, and tank refilling or replacement.
4. Storage tanks shall be of high-strength low alloy steel construction and conform to NFPA 2001.
5. Storage tanks shall have a threaded protection ring on the tank collar and ¼" steel protection cap for handling and shipment.
6. Storage tanks shall be pressurized with dry nitrogen to an operating pressure of 360 psi @ 70°F.
7. Each storage tank shall have a contact pressure gauge with integrated low pressure switch to provide visual and electrical supervision of the tank pressure. The low pressure switch shall be wired to the control panel to provide an audible and visual supervisory condition signal in the event the tank pressure drops below 10% working pressure. The pressure gauge shall be color coded to provide an easy, visual indication of tank pressure.
8. Each storage tank assembly shall have a pressure relief provision that automatically operates before the internal pressure exceeds 1290 psi for tanks with 1½" valves and 1276 psi for tanks with 2" valves.
9. When more than one tank is connected to a common manifold, a check valve shall be provided with each tank.

2.6 FIRE-EXTINGUISHING CLEAN AGENT

A. FK-5-1-12 Clean Agent: Dodecafluoro-2-methylpentan-3-one.

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. 3M
2. The agent shall be suitable for use in normally occupied spaces.
3. Agent shall be listed as "Acceptable" on the EPA's SNAP list.

2.7 DISCHARGE NOZZLES

- ### A. Engineered discharge nozzles shall be provided within the manufacturer's guidelines to distribute the Novec 1230 fluid throughout the protected spaces. The nozzles shall be designed to provide proper agent quantity and distribution.
1. Nozzles shall be permanently marked as to part number and orifice diameter.
 2. Nozzles shall be of the type utilizing internal orifice plates.
 3. Nozzles should be listed and/or approved to be used in the upright or pendant position.

2.8 CONTROL PANELS

- A. Description: FM Approved or NRTL listed, including equipment, components and features required for testing, supervising, operating and releasing of a fire-extinguishing system.
- B. Panel shall perform all functions necessary to operate the system detection, actuation and auxiliary functions as indicated.
- C. Power Requirements: 120/240-V ac; with electrical contacts for connection to system components and fire-alarm system, and transformer or rectifier as needed to produce power at voltage required for accessories and alarm devices.
- D. The control system shall support crossed-zone, single detector release and manual release detection/actuation methods.
- E. Enclosure: NEMA ICS 6, Type 1, enameled-steel cabinet.
 - 1. Mounting: Surface.
- F. Supervised Circuits: Separate circuits for each independent hazard area.
 - 1. Detection circuits equal to the required number of zones, or addressable devices assigned to the required number of zones.
 - 2. Manual pull-station circuit.
 - 3. Alarm circuit.
 - 4. Release circuit.
 - 5. Abort circuit.
 - 6. EPO circuit.
- G. Control-Panel Features:
 - 1. Electrical contacts for shutting down fans, activating dampers, and operating system electrical devices.
 - 2. Automatic switchover to standby power at loss of primary power.
 - 3. Storage container, low-pressure indicator.
 - 4. Service disconnect to interrupt system operation for maintenance with visual status indication on the annunciator panel.
- H. Standby Power: Sealed, valve-regulated, recombinant lead acid batteries with capacity to operate system for 24 hours and alarm for minimum of 15 minutes. Include automatic battery charger that has a varying charging rate between trickle and high depending on battery voltage, and that is capable of maintaining batteries fully charged. Include manual voltage control, dc voltmeter, dc ammeter, electrical contacts for connection to control panel, automatic transfer switch, and suitable enclosure.

2.9 DETECTION DEVICES

- A. General Requirements for Detection Devices:

1. Comply with NFPA 2001, NFPA 72, and UL 268.
 2. 24-V dc, nominal.
- B. Ionization Detectors: Dual-chamber type, having sampling and referencing chambers, with smoke-sensing element.
- C. Photoelectric Detectors: LED light source and silicon photodiode receiving element.
- D. Signals to the Central Fire Alarm Control Panel: Any type of local system trouble is reported to the central fire alarm control panel as a composite "trouble" signal. Alarms on each system zone are individually reported to the central fire alarm control panel as separately identified zones.

2.10 MANUAL STATIONS (ELECTRIC)

- A. General Description: Surface mounted, FM Approved or NRTL listed, with clear plastic hinged cover, 120-V ac or low voltage compatible with controls. Include contacts for connection to control panel.
- B. Manual Release: Signage stating "CLEAN AGENT MANUAL RELEASE" caption, and red finish. Unit can manually discharge extinguishing agent with operating device that remains engaged until unlocked.
1. A manual release station shall be located at each exit from the protected hazard
 2. Manual release station shall not have any markings that's says "fire".

2.11 MANUAL STATIONS (MECHANICAL)

- A. Mechanical Manual Release shall be made available in the event all battery back-up and commercial power is lost. Manual Release shall be installed atop the electric actuator. Consideration should be given for convenience of operation and egress from the hazard area(s).

2.12 SWITCHES

- A. Description: FM Approved or NRTL listed, where available, 120-V ac or low voltage compatible with controls. Include contacts for connection to control panel.
1. Abort Switch: "ABORT" caption, momentary contact, with yellow finish.
 - a. Abort stations shall be located next to each manual release station.
 2. EPO Switch: "EPO" caption, with yellow finish.
 - a. EPO station located at each exit from the protected hazard
 3. Low-Agent Pressure Switches: Pneumatic operation.

4. Power Transfer Switches: Key-operation selector, for transfer of release circuit signal from main supply to reserve supply.

2.13 ALARM DEVICES

- A. Description: Listed and labeled by an NRTL or FM Approved, low voltage, and surface mounting. Audible alarm and visual signal devices shall operate from the clean-agent control panel.
- B. Power: 24 VDC nominal polarized
- C. Bells: Minimum 6-inch diameter.
- D. Horns: Minimum 90 dBA measured at 10 feet from the device.
- E. Strobe Lights: Amber lens, with signage stating "CLEAN AGENT SYSTEM ALARM" or similar caption mounted above.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas and conditions, with Installer present, for compliance with hazard-area leakage requirements, installation tolerances, and other conditions affecting work performance.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 FK-5-1-12 agent PIPING APPLICATIONS

- A. Flanged pipe and fittings and flanged joints may be used to connect to specialties and accessories and where required for maintenance.
- B. NPS 2 and Smaller: Schedule 40, steel pipe; malleable-iron threaded fittings; and threaded joints.
- C. NPS 2-1/2 and Larger: Schedule 40, steel pipe; forged-steel welding fittings; and welded joints.

3.3 CLEAN-AGENT PIPING INSTALLATION

- A. Install clean-agent extinguishing piping and other components level and plumb, according to manufacturers' written instructions.
- B. Grooved Piping Joints: Groove pipe ends according to AWWA C606 dimensions. Assemble grooved-end steel pipe and steel, grooved-end fittings with steel, keyed couplings and lubricant according to manufacturer's written instructions.

- C. Install extinguishing-agent containers anchored to substrate.
- D. Install pipe and fittings, valves, and discharge nozzles according to requirements listed in NFPA 2001, Section "Distribution."
 - 1. Install valves designed to prevent entrapment of liquid, or install pressure relief devices in valved sections of piping systems.
 - 2. Support piping using supports and methods according to NFPA 13.
 - 3. Install seismic restraints for extinguishing-agent containers and piping systems.
 - 4. Install control panels, detection system components, alarms, and accessories, complying with requirements of NFPA 2001, Section "Detection, Actuation, and Control Systems," as required for supervised system application.

3.4 CONNECTIONS

- A. Drawings indicate general arrangement of piping, fittings, and specialties.
- B. Where installing piping adjacent to equipment, allow space for service and maintenance.
- C. Connect electrical devices to control panel and to building's fire-alarm system. Refer to electrical drawings and specifications for additional information.

3.5 IDENTIFICATION

- A. Identify system components and equipment. Comply with requirements for identification specified in Section 260553 "Identification for Electrical Systems."
- B. Identify piping, extinguishing-agent containers, other equipment, and panels according to NFPA 2001.
- C. Install signs at entry doors for protected areas to warn occupants that they are entering a room protected with a clean-agent fire-extinguishing system.
- D. Install signs at entry doors to advise persons outside the room the meaning of the horn(s), bell(s), and strobe light(s) outside the protected space.

3.6 FIELD QUALITY CONTROL

- A. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect, test, and adjust components, assemblies, and equipment installations, including connections.
- B. Test Plan
 - 1. The installing contractor shall submit a "Test Plan" describing procedures to be used to test the control system(s). The Test Plan shall include a step-by-step description of all tests to be performed and shall indicate the type and location of test apparatus to be

employed. The tests shall demonstrate that the operational and installation requirements of this specification have been met. All tests shall be conducted in the presence of the owner and shall not be conducted until the Test Plan has been approved.

2. The tests shall demonstrate that the entire control system functions as designed and intended. All circuits shall be tested: automatic actuation, solenoid and manual actuation, HVAC and power shutdowns, audible and visual alarm devices and manual override of abort functions. Supervision of all panel circuits, including AC power and battery power supplies, shall be tested and qualified.
3. A room pressurization test shall be conducted, to determine the presence of openings which would affect the agent concentration levels. The test(s) shall be conducted using the Door Fan system with integrated computer program. All testing shall be in accordance with NFPA 2001.
4. If room pressurization testing indicates that openings exist which would result in leakage and/or loss of the extinguishing agent, the contractor shall be responsible for the proper sealing of the protected space(s). If the first room pressurization test is not successful, in accordance with these specifications, the contractor shall determine, and correct, the cause of the test failure and conduct additional room pressurization tests, at no additional cost to the owner, until a successful test is obtained. Copies of successful test results shall be submitted to the owner for record. Upon acceptance by the owner, the completed system(s) shall be placed into service.

C. Perform tests and inspections.

1. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect components, assemblies, and equipment installations, including connections, and to assist in testing.

D. Tests and Inspections:

1. After installing clean-agent extinguishing piping system and after electrical circuitry has been energized, test for compliance with requirements.
2. Perform each electrical test and visual and mechanical inspection stated in NETA ATS, Sections "Inspection and Test Procedures" and "System Function Tests." Certify compliance with test parameters.
3. Leak Test: After installation, piping shall be pneumatically tested in a closed circuit for a period of 10 minutes at 40 psi per the latest editions of NFPA 2001. At the end of 10 minutes, the pressure drop shall not exceed 20 percent of the test pressure.
4. Functional Test: The complete system shall be functionally tested, in the presence of the owner or his representative, and all functions, including system and equipment interlocks, must be operational at least five (5) days prior to the final acceptance tests.
 - a. Each detector shall be tested in accordance with the manufacturer's recommended procedures, and test values recorded.
 - b. All system and equipment interlocks, such as audible and visual devices, equipment shutdowns, local and remote alarms, etc. shall function as required and designed.
 - c. Each control panel circuit shall be tested for trouble by inducing a trouble condition into the system

5. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.

E. Units will be considered defective if they do not pass tests and inspections.

F. Prepare test and inspection reports.

3.7 CLEANING

- A. Each pipe section shall be cleaned internally after preparation and before assembly by means of swabbing, using a suitable nonflammable cleaner. Pipe network shall be free of particulate matter and oil residue before installing nozzles or discharge devices.

3.8 SYSTEM FILLING

A. Preparation:

1. Verify that piping system installation is completed and cleaned.
2. Check for complete enclosure integrity.
3. Check operation of ventilation and exhaust systems.

B. Filling Procedures:

1. Fill extinguishing-agent containers with extinguishing agent, and pressurize to indicated charge pressure.
2. Install filled extinguishing-agent containers.
3. Energize circuits.
4. Adjust operating controls.

3.9 TRAINING

- A. Prior to final acceptance, the installing contractor shall provide operational training to owner's personnel. Training session shall include control panel operation, manual and (optional) abort functions, trouble procedures, supervisory procedures, auxiliary functions and emergency procedures.

END OF SECTION 212200

SECTION 260500 – COMMON WORK RESULTS FOR ELECTRICAL

PART 1 - GENERAL

1.1 GENERAL REQUIREMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
- B. Examine all other Sections of the Specifications for requirements that affect work under this Section whether or not such work is specifically mentioned in this Section.
- C. Coordinate work with that of all other trades affecting, or affected by work of this Section. Cooperate with such trades to assure the steady progress of all work under the Contract.

1.2 SUMMARY

- A. Section Includes:
 - 1. Electrical equipment coordination and installation.
 - 2. Common electrical installation requirements.

1.3 COORDINATION

- A. Coordinate arrangement, mounting, and support of electrical equipment:
 - 1. To allow maximum possible headroom unless specific mounting heights that reduce headroom are indicated.
 - 2. To provide for ease of disconnecting the equipment with minimum interference to other installations.
 - 3. To allow right of way for piping and conduit installed at required slope.
 - 4. So connecting raceways, cables, wireways, cable trays, and busways will be clear of obstructions and of the working and access space of other equipment.
- B. Coordinate installation of required supporting devices and set sleeves in cast-in-place concrete, masonry walls, and other structural components as they are constructed.

PART 2 - PRODUCTS – *Not Used*

PART 3 - EXECUTION

3.1 COMMON REQUIREMENTS FOR ELECTRICAL INSTALLATION

- A. Comply with NECA 1.
- B. Measure indicated mounting heights to bottom of unit for suspended items and to center of unit for wall-mounting items.
- C. Headroom Maintenance: If mounting heights or other location criteria are not indicated, arrange and install components and equipment to provide maximum possible headroom consistent with these requirements.
- D. Equipment: Install to facilitate service, maintenance, and repair or replacement of components of both electrical equipment and other nearby installations. Connect in such a way as to facilitate future disconnecting with minimum interference with other items in the vicinity.
- E. Right of Way: Give to piping systems installed at a required slope.

END OF SECTION 260500

SECTION 260519 - LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES

PART 1 - GENERAL

1.1 GENERAL REQUIREMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
- B. Examine all other Sections of the Specifications for requirements that affect work under this Section whether or not such work is specifically mentioned in this Section.
- C. Coordinate work with that of all other trades affecting, or affected by work of this Section. Cooperate with such trades to assure the steady progress of all work under the Contract.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Building wires and cables rated 600 V and less.
 - 2. Connectors, splices, and terminations rated 600 V and less.

1.3 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Field quality-control test reports.

1.4 QUALITY ASSURANCE

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- B. Comply with NFPA 70.

PART 2 - PRODUCTS

2.1 CONDUCTORS AND CABLES

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

Cattaraugus County Jail
Sheriff's Office Fire Protection Improvements
Little Valley, NY
Wendel Project No. 307661

1. General Cable Corporation.
2. Senator Wire & Cable Company.
3. Southwire Company.

B. Copper Conductors: Comply with NEMA WC 70.

C. Conductor Insulation: Comply with NEMA WC 70 for Types THHN-THWN, XHHW-2.

1. THHN-THWN: PVC with nylon jacket
2. XHHW-2: XLPE (Cross-linked Polyethylene)

D. Two-hour Fire Rated: Comply with UL2196 Type RHW

2.2 METAL-CLAD CABLE, TYPE MC

A. Description: A factory assembly of one or more current-carrying insulated conductors in an overall metallic sheath.

B. Standards:

1. Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and use.
2. Comply with UL 1569.
3. RoHS compliant.
4. Conductor and Cable Marking: Comply with wire and cable marking according to UL's "Wire and Cable Marking and Application Guide."

C. Circuits:

1. Single circuit and multicircuit with color-coded conductors.
2. Power-Limited Fire-Alarm Circuits: Comply with UL 1424.

D. Conductors: Copper, complying with ASTM B3 for bare annealed copper and with ASTM B8 for stranded conductors

E. Ground Conductor: Insulated.

F. Conductor Insulation:

1. Type TFN/THHN/THWN-2: Comply with UL 83.
2. Type XHHW-2: Comply with UL 44.

G. Armor: Steel, interlocked.

H. Jacket: PVC applied over armor.

2.3 FIRE-ALARM WIRE AND CABLE

- A. General Wire and Cable Requirements: NRTL listed and labeled as complying with NFPA 70, Article 760.
- B. Signaling Line Circuits: Twisted, shielded pair, as recommended by system manufacturer.
 - 1. Circuit Integrity Cable: Twisted shielded pair, NFPA 70, Article 760, Classification CI, for power-limited fire-alarm signal service Type FPL. NRTL listed and labeled as complying with UL 1424 and UL 2196 for a two-hour rating.
- C. Non-Power-Limited Circuits: Solid-copper conductors with 600-V rated, 75 deg C, color-coded insulation, and complying with requirements in UL 2196 for a two-hour rating.
 - 1. Low-Voltage Circuits: No. 16 AWG, minimum, in pathway.
 - 2. Line-Voltage Circuits: No. 12 AWG, minimum, in pathway.
 - 3. Multiconductor Armored Cable: NFPA 70, Type MC, copper conductors, Type TFN/THHN conductor insulation, copper drain wire, copper armor with outer jacket with red identifier stripe, NRTL listed for fire-alarm and cable tray installation, plenum rated.

2.4 CONNECTORS AND SPLICES

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. Hubbell Power Systems, Inc.
 - 2. O-Z/Gedney; EGS Electrical Group LLC.
 - 3. 3M; Electrical Products Division.
- B. Description: Factory-fabricated connectors and splices of size, ampacity rating, material, type, and class for application and service indicated.

PART 3 - EXECUTION

3.1 CONDUCTOR MATERIAL APPLICATIONS

- A. Feeders: stranded for all.
- B. Branch Circuits: Copper, stranded for all.
- C. Power-Limited Fire Alarm and Control: Solid for No. 12 AWG and smaller.

3.2 CONDUCTOR INSULATION AND MULTICONDUCTOR CABLE APPLICATIONS AND WIRING METHODS

- A. Service Entrance: Type XHHW-2, single conductors in raceway.

- B. Exposed Feeders: Type THHN/THWN-2, single conductors in raceway.
- C. Feeders Concealed in Ceilings, Walls, Partitions, and Crawlspace: Type THHN/THWN-2, single conductors in raceway.
- D. Feeders Concealed in Concrete, below Slabs-on-Grade, and Underground: Type THHN/THWN-2, single conductors in raceway.
- E. Exposed Branch Circuits, Including in Crawlspace: Type THHN/THWN-2, single conductors in raceway.
- F. Branch Circuits Concealed in Ceilings, Walls, and Partitions: Metal-clad cable, Type MC.
- G. Branch Circuits Concealed in Concrete, below Slabs-on-Grade, and Underground: Type THHN/THWN-2, single conductors in raceway.
- H. Cord Drops and Portable Appliance Connections: Type SO, hard service cord with stainless-steel, wire-mesh, strain relief device at terminations to suit application. Feeders in conduit outdoors: Type XHHW.
- I. Fire Rate Cable: Type RHW
 - 1. Use Cable for: Fire pump feeders (NEC 695), emergency feeders (NEC 700 and 708)

3.3 INSTALLATION OF CONDUCTORS AND CABLES

- A. Conceal cables in finished walls, ceilings, and floors unless otherwise indicated.
- B. Complete raceway installation between conductor and cable termination points according to Section 260533 "Raceways and Boxes for Electrical Systems" prior to pulling conductors and cables.
- C. Use manufacturer-approved pulling compound or lubricant where necessary; compound used must not deteriorate conductor or insulation. Do not exceed manufacturer's recommended maximum pulling tensions and sidewall pressure values.
- D. Use pulling means, including fish tape, cable, rope, and basket-weave wire/cable grips, that will not damage cables or raceway.
- E. Install exposed cables parallel and perpendicular to surfaces of exposed structural members, and follow surface contours where possible.
- F. Support cables according to Section 260529 "Hangers and Supports for Electrical Systems."

3.4 CONNECTIONS

- A. Tighten electrical connectors and terminals according to manufacturer's published torque-tightening values. If manufacturer's torque values are not indicated, use those specified in UL 486A and UL 486B.

- B. Wiring at Outlets: Install conductor at each outlet, with at least 6 inches (150 mm).

3.5 FIRESTOPPING

- A. Refer to 260500 "Common work results for electrical"

3.6 FIELD QUALITY CONTROL

- A. Perform tests and inspections and prepare test reports.
- B. Tests and Inspections:
 - 1. Perform each visual and mechanical inspection and electrical test stated in NETA Acceptance Testing Specification. Certify compliance with test parameters.
- C. Test Reports: Prepare a written report to record the following:
 - 1. Test procedures used.
 - 2. Test results that comply with requirements.
 - 3. Test results that do not comply with requirements and corrective action taken to achieve compliance with requirements.
- D. Remove and replace malfunctioning units and retest as specified above.

END OF SECTION 260519

SECTION 260529 - HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.1 GENERAL REQUIREMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
- B. Examine all other Sections of the Specifications for requirements that affect work under this Section whether or not such work is specifically mentioned in this Section.
- C. Coordinate work with that of all other trades affecting, or affected by work of this Section. Cooperate with such trades to assure the steady progress of all work under the Contract.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Hangers and supports for electrical equipment and systems.

1.3 DEFINITIONS

- A. EMT: Electrical metallic tubing.
- B. RMC: Rigid metal conduit.

1.4 PERFORMANCE REQUIREMENTS

- A. Design supports for multiple raceways capable of supporting combined weight of supported systems and its contents.

1.5 SUBMITTALS

- A. Product Data: For the following:
 - 1. Steel slotted support systems.
 - 2. Nonmetallic slotted support systems.
- B. Welding certificates.

1.6 QUALITY ASSURANCE

- A. Welding: Qualify procedures and personnel according to AWS D1.1/D1.1M, "Structural Welding Code - Steel."
- B. Comply with NFPA 70.

PART 2 - PRODUCTS

2.1 SUPPORT, ANCHORAGE, AND ATTACHMENT COMPONENTS

- A. Steel Slotted Support Systems: Comply with MFMA-4, factory-fabricated components for field assembly.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Allied Tube & Conduit.
 - b. Cooper B-Line, Inc.; a division of Cooper Industries.
 - c. ERICO International Corporation.
 - d. Thomas & Betts Corporation.
 - e. Unistrut; Tyco International, Ltd.
 - 2. Metallic Coatings: Hot-dip galvanized after fabrication and applied according to MFMA-4.
- B. Raceway and Cable Supports: As described in NECA 1 and NECA 101.
- C. Conduit and Cable Support Devices: Steel and malleable-iron hangers, clamps, and associated fittings, designed for types and sizes of raceway or cable to be supported.
- D. Structural Steel for Fabricated Supports and Restraints: ASTM A 36/A 36M, steel plates, shapes, and bars; black and galvanized.
- E. Mounting, Anchoring, and Attachment Components: Items for fastening electrical items or their supports to building surfaces include the following:
 - 1. Powder-Actuated Fasteners: Threaded-steel stud, for use in hardened portland cement concrete, steel, or wood, with tension, shear, and pullout capacities appropriate for supported loads and building materials in which used.
 - 2. Mechanical-Expansion Anchors: Insert-wedge-type, stainless steel, for use in hardened portland cement concrete with tension, shear, and pullout capacities appropriate for supported loads and building materials in which used.
 - 3. Concrete Inserts: Steel or malleable-iron, slotted support system units similar to MSS Type 18; complying with MFMA-4 or MSS SP-58.
 - 4. Clamps for Attachment to Steel Structural Elements: MSS SP-58, type suitable for attached structural element.

5. Through Bolts: Structural type, hex head, and high strength. Comply with ASTM A 325.
6. Toggle Bolts: All-steel springhead type.
7. Hanger Rods: Threaded steel.

2.2 FABRICATED METAL EQUIPMENT SUPPORT ASSEMBLIES

- A. Description: Welded or bolted, structural-steel shapes, shop or field fabricated to fit dimensions of supported equipment.

PART 3 - EXECUTION

3.1 APPLICATION

- A. Comply with NECA 1 and NECA 101 for application of hangers and supports for electrical equipment and systems except if requirements in this Section are stricter.
- B. Maximum Support Spacing and Minimum Hanger Rod Size for Raceway: Space supports for EMT and RMC as required by NFPA 70. Minimum rod size shall be 1/4 inch (6 mm) in diameter.
- C. Multiple Raceways or Cables: Install trapeze-type supports fabricated with steel slotted support system, sized so capacity can be increased by at least 25 percent in future without exceeding specified design load limits.
 1. Secure raceways and cables to these supports with single-bolt conduit clamps.
- D. Spring-steel clamps designed for supporting single conduits without bolts may be used for 1-1/2-inch (38-mm) and smaller raceways serving branch circuits and communication systems above suspended ceilings and for fastening raceways to trapeze supports.

3.2 SUPPORT INSTALLATION

- A. Comply with NECA 1 and NECA 101 for installation requirements except as specified in this Article.
- B. Raceway Support Methods: In addition to methods described in NECA 1, EMT, IMC, and RMC may be supported by openings through structure members, as permitted in NFPA 70.
- C. Strength of Support Assemblies: Where not indicated, select sizes of components so strength will be adequate to carry present and future static loads within specified loading limits. Minimum static design load used for strength determination shall be weight of supported components plus 200 lb (90 kg).

Mounting and Anchorage of Surface-Mounted Equipment and Components: Anchor and fasten electrical items and their supports to building structural elements by the following methods unless otherwise indicated by code:

1. To New Concrete: Bolt to concrete inserts.
 2. To Masonry: Approved toggle-type bolts on hollow masonry units and expansion anchor fasteners on solid masonry units.
 3. To Existing Concrete: Expansion anchor fasteners.
 4. Instead of expansion anchors, powder-actuated driven threaded studs provided with lock washers and nuts may be used in existing standard-weight concrete 4 inches (100 mm) thick or greater. Do not use for anchorage to lightweight-aggregate concrete or for slabs less than 4 inches (100 mm) thick.
 5. To Light Steel: Sheet metal screws.
 6. Items Mounted on Hollow Walls and Nonstructural Building Surfaces: Mount cabinets, panelboards, disconnect switches, control enclosures, pull and junction boxes, transformers, and other devices on slotted-channel racks attached to substrate by means that meet seismic-restraint strength and anchorage requirements.
- D. Drill holes for expansion anchors in concrete at locations and to depths that avoid reinforcing bars.

3.3 INSTALLATION OF FABRICATED METAL SUPPORTS

- A. Cut, fit, and place miscellaneous metal supports accurately in location, alignment, and elevation to support and anchor electrical materials and equipment.
- B. Field Welding: Comply with AWS D1.1/D1.1M.

3.4 PAINTING

- A. Touchup: Clean field welds and abraded areas of shop paint. Paint exposed areas immediately after erecting hangers and supports. Use same materials as used for shop painting. Comply with SSPC-PA 1 requirements for touching up field-painted surfaces.
1. Apply paint by brush or spray to provide minimum dry film thickness of 2.0 mils (0.05 mm).
- B. Galvanized Surfaces: Clean welds, bolted connections, and abraded areas and apply galvanizing-repair paint to comply with ASTM A 780.

END OF SECTION 260529

SECTION 260533 - RACEWAYS AND BOXES FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:

- 1. Metal conduits, tubing, and fittings.
- 2. Nonmetal conduits, tubing, and fittings.
- 3. Metal wireways and auxiliary gutters.
- 4. Nonmetal wireways and auxiliary gutters.
- 5. Surface raceways.
- 6. Boxes, enclosures, and cabinets.
- 7. Handholes and boxes for exterior underground cabling.

- B. Related Requirements:

- 1. Section 260543 "Underground Ducts and Raceways for Electrical Systems" for exterior ductbanks, manholes, and underground utility construction.
- 2. Section 271523 "Computer/Telephone Network"

1.3 DEFINITIONS

- A. ARC: Aluminum rigid conduit.
- B. GRC: Galvanized rigid steel conduit.
- C. IMC: Intermediate metal conduit.
- D. RNC: Rigid non-metallic conduit
- E. RMC: Rigid metal conduit
- F. EMT: Electrical metallic tubing
- G. MC: Metal Clad Cable
- H. LFMC: Liquid-Tight flexible metal conduit

- I. LFNC: Liquid-Tight flexible non-metal conduit

1.4 ACTION SUBMITTALS

- A. Product Data: For surface raceways, wireways and fittings, floor boxes, hinged-cover enclosures, and cabinets.

PART 2 - PRODUCTS

2.1 METAL CONDUITS, TUBING, AND FITTINGS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. Alflec Inc.
 - 2. Allied Tube & Conduit; a Tyco International Ltd. Co.
 - 3. O-Z Gedney; a unit of General Signal.
 - 4. Wheatland Tube Company.
- B. Listing and Labeling: Metal conduits, tubing, and fittings shall be listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- C. GRC: Comply with ANSI C80.1 and UL 6.
- D. ARC: Comply with ANSI C80.5 and UL 6A.
- E. IMC: Comply with ANSI C80.6 and UL 1242.
- F. EMT: Comply with ANSI C80.3 and UL 797.
- G. FMC: Comply with UL 1; zinc-coated steel.
- H. LFMC: Flexible steel conduit with PVC jacket and complying with UL 360.
- I. Fittings for Metal Conduit: Comply with NEMA FB 1 and UL 514B.
 - 1. Conduit Fittings for Hazardous (Classified) Locations: Comply with UL 886 and NFPA 70.
 - 2. Fittings for EMT:
 - a. Material: die cast.
 - b. Type: Setscrew or compression.
 - 3. Expansion Fittings: PVC or steel to match conduit type, complying with UL 651, rated for environmental conditions where installed, and including flexible external bonding jumper.

- J. Joint Compound for IMC, GRC, or ARC: Approved, as defined in NFPA 70, by authorities having jurisdiction for use in conduit assemblies, and compounded for use to lubricate and protect threaded conduit joints from corrosion and to enhance their conductivity.

2.2 NONMETALLIC CONDUITS, TUBING, AND FITTINGS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. AFC Cable Systems
 - 2. Arnco
 - 3. CANTEX
 - 4. RACO
 - 5. Alflec Inc.
 - 6. Allied Tube & Conduit; a Tyco International Ltd. Co.
 - 7. O-Z Gedney; a unit of General Signal.
 - 8. Wheatland Tube Company
- B. Listing and Labeling: Nonmetallic conduits, tubing, and fittings shall be listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- C. ENT: Comply with NEMA TC 13 and UL 1653.
- D. RNC: Type EPC-80-PVC, complying with NEMA TC 2 and UL 651 unless otherwise indicated.
- E. LFNC: Comply with UL 1660.
- F. Rigid HDPE: Comply with UL 651A.
- G. Continuous HDPE: Comply with UL 651B.
- H. Coilable HDPE: Preassembled with conductors or cables, and complying with ASTM D 3485.
- I. RTRC: Comply with UL 1684A and NEMA TC 14.
- J. Fittings for ENT and RNC: Comply with NEMA TC 3; match to conduit or tubing type and material.
- K. Fittings for LFNC: Comply with UL 514B.
- L. Solvents and Adhesives: As recommended by conduit manufacturer.

2.3 METAL WIREWAYS AND AUXILIARY GUTTERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. Erickson Electrical Equipment Company.
 - 2. Hoffman.
 - 3. Hubbell Incorporated; Killark Electric Manufacturing Co. Division.
 - 4. O-Z/Gedney; a unit of General Signal.
 - 5. RACO; a Hubbell Company.
 - 6. Robroy Industries, Inc.; Enclosure Division.
 - 7. Spring City Electrical Manufacturing Company.
 - 8. Thomas & Betts Corporation
- B. Description: Sheet metal, complying with UL 870 and NEMA 250, Type 3R unless otherwise indicated, and sized according to NFPA 70.
 - 1. Metal wireways installed outdoors shall be listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- C. Fittings and Accessories: Include covers, couplings, offsets, elbows, expansion joints, adapters, hold-down straps, end caps, and other fittings to match and mate with wireways as required for complete system.
- D. Wireway Covers: Screw-cover type unless otherwise indicated.
- E. Finish: Manufacturer's standard enamel finish.

2.4 BOXES, ENCLOSURES, AND CABINETS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. Erickson Electrical Equipment Company.
 - 2. Hoffman.
 - 3. Hubbell Incorporated; Killark Electric Manufacturing Co. Division.
 - 4. O-Z/Gedney; a unit of General Signal.
 - 5. RACO; a Hubbell Company.
 - 6. Robroy Industries, Inc.; Enclosure Division.
 - 7. Spring City Electrical Manufacturing Company.
 - 8. Thomas & Betts Corporation
- B. General Requirements for Boxes, Enclosures, and Cabinets: Boxes, enclosures, and cabinets installed in wet locations shall be listed for use in wet locations.
- C. Sheet Metal Outlet and Device Boxes: Comply with NEMA OS 1 and UL 514A.

- D. Cast-Metal Outlet and Device Boxes: Comply with NEMA FB 1, ferrous alloy or aluminum, Type FD, with gasketed cover.
- E. Nonmetallic Outlet and Device Boxes: Comply with NEMA OS 2 and UL 514C.
- F. Metal Floor Boxes:
 - 1. Material: Cast metal or sheet metal.
 - 2. Type: Fully adjustable.
 - 3. Shape: Rectangular or otherwise indicated.
 - 4. Listing and Labeling: Metal floor boxes shall be listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- G. Luminaire Outlet Boxes: Nonadjustable, designed for attachment of luminaire weighing 50 lb. Outlet boxes designed for attachment of luminaires weighing more than 50 lb shall be listed and marked for the maximum allowable weight.
- H. Small Sheet Metal Pull and Junction Boxes: NEMA OS 1.
- I. Cast-Metal Access, Pull, and Junction Boxes: Comply with NEMA FB 1 and UL 1773, galvanized, cast iron with gasketed cover.
- J. Box extensions used to accommodate new building finishes shall be of same material as recessed box.
- K. Device Box Dimensions: 4 inches square by 2-1/8 inches deep.
- L. Gangable boxes are prohibited.
- M. Hinged-Cover Enclosures: Comply with UL 50 and NEMA 250, Type 3R with continuous-hinge cover with flush latch unless otherwise indicated.
 - 1. Metal Enclosures: Steel, finished inside and out with manufacturer's standard enamel.
 - 2. Nonmetallic Enclosures: Fiberglass.
 - 3. Interior Panels: Steel; all sides finished with manufacturer's standard enamel.
- N. Cabinets:
 - 1. NEMA 250, Type 1 or Type 3R galvanized-steel box with removable interior panel and removable front, finished inside and out with manufacturer's standard enamel.
 - 2. Hinged door in front cover with flush latch and concealed hinge.
 - 3. Key latch to match panelboards.
 - 4. Metal barriers to separate wiring of different systems and voltage.
 - 5. Accessory feet where required for freestanding equipment.
 - 6. Nonmetallic cabinets shall be listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

2.5 HANDHOLES AND BOXES FOR EXTERIOR UNDERGROUND WIRING

A. General Requirements for Handholes and Boxes:

1. Boxes and handholes for use in underground systems shall be designed and identified as defined in NFPA 70, for intended location and application.
2. Boxes installed in wet areas shall be listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

B. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Armorcast Products Company
2. OldErickson Electrical Equipment Company.
3. Hoffman.
4. Hubbell Incorporated; Killark Electric Manufacturing Co. Division.
5. O-Z/Gedney; a unit of General Signal.
6. RACO; a Hubbell Company.
7. Robroy Industries, Inc.; Enclosure Division.
8. Spring City Electrical Manufacturing Company.
9. Thomas & Betts Corporation

C. Polymer-Concrete Handholes and Boxes with Polymer-Concrete Cover: Molded of sand and aggregate, bound together with polymer resin, and reinforced with steel, fiberglass, or a combination of the two.

1. Standard: Comply with SCTE 77.
2. Configuration: Designed for flush burial with open bottom unless otherwise indicated.
3. Cover: Weatherproof, secured by tamper-resistant locking devices and having structural load rating consistent with enclosure and handhole location.
4. Cover Finish: Nonskid finish shall have a minimum coefficient of friction of 0.50.
5. Cover Legend: Molded lettering, "ELECTRIC" or "COMMUNICATIONS".
6. Conduit Entrance Provisions: Conduit-terminating fittings shall mate with entering ducts for secure, fixed installation in enclosure wall.
7. Handholes 24 Inches Wide by 24 Inches Long and Larger: Have inserts for cable racks and pulling-in irons installed before concrete is poured.

2.6 SOURCE QUALITY CONTROL FOR UNDERGROUND ENCLOSURES

A. Handhole and Pull-Box Prototype Test: Test prototypes of handholes and boxes for compliance with SCTE 77. Strength tests shall be for specified tier ratings of products supplied.

1. Tests of materials shall be performed by an independent testing agency.
2. Strength tests of complete boxes and covers shall be by either an independent testing agency or manufacturer. A qualified registered professional engineer shall certify tests by manufacturer.
3. Testing machine pressure gages shall have current calibration certification complying with ISO 9000 and ISO 10012 and traceable to NIST standards.

PART 3 - EXECUTION

3.1 RACEWAY APPLICATION

A. Outdoors: Apply raceway products as specified below unless otherwise indicated:

1. Exposed Conduit: GRC.
2. Concealed Conduit, Aboveground: GRC.
3. Underground Conduit: RNC, Type EPC-40-PVC or Type EPC-80-PVC, concrete encased.
4. Connection to Vibrating Equipment (Including Transformers and Hydraulic, Pneumatic, Electric Solenoid, or Motor-Driven Equipment): LFMC.
5. Boxes and Enclosures, Aboveground: NEMA 250, Type 3R.

B. Indoors: Apply raceway products as specified below unless otherwise indicated:

1. Exposed, Not Subject to Physical Damage: GRC.
2. Exposed, Not Subject to Severe Physical Damage: GRC.
3. Exposed and Subject to Severe Physical Damage: GRC. Raceway locations include the following:
 - a. Loading dock.
 - b. Corridors used for traffic of mechanized carts, forklifts, and pallet-handling units.
 - c. Mechanical rooms up to 8ft above finished floor. Use of EMT above the 8ft is permitted
 - d. Vehicle Maintenance and supporting areas up to 8ft above finished floor. Use of EMT above the 8ft is permitted.
4. Concealed in Ceilings and Interior Walls and Partitions: EMT (use of MC cable in administration areas is allowed).
5. Connection to Vibrating Equipment (Including Transformers and Hydraulic, Pneumatic, Electric Solenoid, or Motor-Driven Equipment): FMC, except use LFMC in damp or wet locations.
6. Damp or Wet Locations: GRC.
7. Boxes and Enclosures: NEMA 250, Type 1, except use NEMA 250, Type 4 stainless steel in institutional and commercial kitchens and damp or wet locations.

C. Minimum Raceway Size: 3/4-inch trade size.

D. Raceway Fittings: Compatible with raceways and suitable for use and location.

1. Rigid and Intermediate Steel Conduit: Use threaded rigid steel conduit fittings unless otherwise indicated. Comply with NEMA FB 2.10.
2. PVC Externally Coated, Rigid Steel Conduits: Use only fittings listed for use with this type of conduit. Patch and seal all joints, nicks, and scrapes in PVC coating after installing conduits and fittings. Use sealant recommended by fitting manufacturer and apply in thickness and number of coats recommended by manufacturer.
3. EMT: Use setscrew or compression, cast-metal fittings. Comply with NEMA FB 2.10.

- 4. Flexible Conduit: Use only fittings listed for use with flexible conduit. Comply with NEMA FB 2.20.
- E. Install nonferrous conduit or tubing for circuits operating above 60 Hz. Where aluminum raceways are installed for such circuits and pass through concrete, install in nonmetallic sleeve.
- F. Do not install aluminum conduits, boxes, or fittings in contact with concrete or earth.
- G. Install surface raceways only where indicated on Drawings.
- H. Do not install nonmetallic conduit where ambient temperature exceeds 120 deg F.

3.2 INSTALLATION

- A. Comply with NECA 1 and NECA 101 for installation requirements except where requirements on Drawings or in this article are stricter. Comply with NECA 102 for aluminum conduits. Comply with NFPA 70 limitations for types of raceways allowed in specific occupancies and number of floors.
- B. Keep raceways at least 6 inches away from parallel runs of flues and steam or hot-water pipes. Install horizontal raceway runs above water and steam piping.
- C. Complete raceway installation before starting conductor installation.
- D. Comply with requirements in Section 260529 "Hangers and Supports for Electrical Systems" for hangers and supports.
- E. Arrange stub-ups so curved portions of bends are not visible above finished slab.
- F. Install no more than the equivalent of three 90-degree bends in any conduit run except for control wiring conduits, for which fewer bends are allowed. Support within 12 inches of changes in direction.
- G. Conceal conduit and EMT within finished walls, ceilings, and floors unless otherwise indicated. Install conduits parallel or perpendicular to building lines.
- H. Support conduit within 12 inches of enclosures to which attached.
- I. Raceways Embedded in Slabs:
 - 1. Run conduit larger than 1-inch trade size, parallel or at right angles to main reinforcement. Where at right angles to reinforcement, place conduit close to slab support. Secure raceways to reinforcement at maximum 10-foot intervals.
 - 2. Arrange raceways to cross building expansion joints at right angles with expansion fittings.
 - 3. Arrange raceways to keep a minimum of 3 inch of concrete cover in all directions.
 - 4. Do not embed threadless fittings in concrete unless specifically approved by Architect for each specific location.

5. Change from RNC to RMC before rising above floor.
- J. Stub-ups to Above Recessed Ceilings:
 1. Use EMT, IMC, or RMC for raceways.
 2. Use a conduit bushing or insulated fitting to terminate stub-ups not terminated in hubs or in an enclosure.
- K. Threaded Conduit Joints, Exposed to Wet, Damp, Corrosive, or Outdoor Conditions: Apply listed compound to threads of raceway and fittings before making up joints. Follow compound manufacturer's written instructions.
- L. Coat field-cut threads on PVC-coated raceway with a corrosion-preventing conductive compound prior to assembly.
- M. Raceway Terminations at Locations Subject to Moisture or Vibration: Use insulating bushings to protect conductors including conductors smaller than No. 4 AWG.
- N. Terminate threaded conduits into threaded hubs or with locknuts on inside and outside of boxes or cabinets. Install bushings on conduits up to 1-1/4-inch trade size and insulated throat metal bushings on 1-1/2-inch trade size and larger conduits terminated with locknuts. Install insulated throat metal grounding bushings on service conduits.
- O. Install raceways square to the enclosure and terminate at enclosures with locknuts. Install locknuts hand tight plus 1/4 turn more.
- P. Do not rely on locknuts to penetrate nonconductive coatings on enclosures. Remove coatings in the locknut area prior to assembling conduit to enclosure to assure a continuous ground path.
- Q. Cut conduit perpendicular to the length. For conduits 2-inch trade size and larger, use roll cutter or a guide to make cut straight and perpendicular to the length.
- R. Install pull wires in empty raceways. Use polypropylene or monofilament plastic line with not less than 200-lb tensile strength. Leave at least 12 inches of slack at each end of pull wire. Cap underground raceways designated as spare above grade alongside raceways in use.
- S. Surface Raceways:
 1. Install surface raceway with a minimum 2-inch radius control at bend points.
 2. Secure surface raceway with screws or other anchor-type devices at intervals not exceeding 48 inches and with no less than two supports per straight raceway section. Support surface raceway according to manufacturer's written instructions. Tape and glue are not acceptable support methods.
- T. Install raceway sealing fittings at accessible locations according to NFPA 70 and fill them with listed sealing compound. For concealed raceways, install each fitting in a flush steel box with a blank cover plate having a finish similar to that of adjacent plates or surfaces. Install raceway sealing fittings according to NFPA 70.

- U. Install devices to seal raceway interiors at accessible locations. Locate seals so no fittings or boxes are between the seal and the following changes of environments. Seal the interior of all raceways at the following points:
 - 1. Where conduits pass from warm to cold locations, such as boundaries of refrigerated spaces.
 - 2. Where an underground service raceway enters a building or structure.
 - 3. Where otherwise required by NFPA 70.
- V. Comply with manufacturer's written instructions for solvent welding RNC and fittings.
- W. Expansion-Joint Fittings:
 - 1. Install in each run of aboveground RNC that is located where environmental temperature change may exceed 30 deg F and that has straight-run length that exceeds 25 feet. Install in each run of aboveground RMC and EMT conduit that is located where environmental temperature change may exceed 100 deg F and that has straight-run length that exceeds 100 feet.
 - 2. Install type and quantity of fittings that accommodate temperature change listed for each of the following locations:
 - a. Outdoor Locations Not Exposed to Direct Sunlight: 125 deg F temperature change.
 - b. Outdoor Locations Exposed to Direct Sunlight: 155 deg F temperature change.
 - c. Indoor Spaces Connected with Outdoors without Physical Separation: 125 deg F temperature change.
 - 3. Install fitting(s) that provide expansion and contraction for at least 0.00041 inch per foot of length of straight run per deg of temperature change for PVC conduits. Install fitting(s) that provide expansion and contraction for at least 0.000078 inch per foot of length of straight run per deg F of temperature change for metal conduits.
 - 4. Install expansion fittings at all locations where conduits cross building or structure expansion joints.
 - 5. Install each expansion-joint fitting with position, mounting, and piston setting selected according to manufacturer's written instructions for conditions at specific location at time of installation. Install conduit supports to allow for expansion movement.
- X. Flexible Conduit Connections: Comply with NEMA RV 3. Use a maximum of 72 inches of flexible conduit for recessed and semirecessed luminaires, equipment subject to vibration, noise transmission, or movement; and for transformers and motors.
 - 1. Use LFMC in damp or wet locations subject to severe physical damage.
 - 2. Use LFMC or LFNC in damp or wet locations not subject to severe physical damage.
- Y. Mount boxes at heights indicated on Drawings. If mounting heights of boxes are not individually indicated, give priority to ADA requirements. Install boxes with height measured to center of box unless otherwise indicated.

- Z. Recessed Boxes in Masonry Walls: Saw-cut opening for box in center of cell of masonry block, and install box flush with surface of wall. Prepare block surfaces to provide a flat surface for a raintight connection between box and cover plate or supported equipment and box.
- AA. Horizontally separate boxes mounted on opposite sides of walls so they are not in the same vertical channel.
- BB. Locate boxes so that cover or plate will not span different building finishes.
- CC. Support boxes of three gangs or more from more than one side by spanning two framing members or mounting on brackets specifically designed for the purpose.
- DD. Fasten junction and pull boxes to or support from building structure. Do not support boxes by conduits.
- EE. Set metal floor boxes level and flush with finished floor surface.
- FF. Set nonmetallic floor boxes level. Trim after installation to fit flush with finished floor surface.

3.3 INSTALLATION OF UNDERGROUND CONDUIT

- A. Direct-Buried Conduit:
 - 1. Excavate trench bottom to provide firm and uniform support for conduit. Prepare trench bottom as specified in Section 312000 "Earth Moving Site Work" for pipe less than 6 inches in nominal diameter.
 - 2. Install backfill as specified in Section 312000 "Earth Moving Site Work."
 - 3. After installing conduit, backfill and compact. Start at tie-in point, and work toward end of conduit run, leaving conduit at end of run free to move with expansion and contraction as temperature changes during this process. Firmly hand tamp backfill around conduit to provide maximum supporting strength. After placing controlled backfill to within 12 inches of finished grade, make final conduit connection at end of run and complete backfilling with normal compaction as specified in Section 312000 "Earth Moving Site Work."
 - 4. Install manufactured duct elbows for stub-ups at poles and equipment and at building entrances through floor unless otherwise indicated. Encase elbows for stub-up ducts throughout length of elbow.
 - 5. Install manufactured rigid steel conduit elbows for stub-ups at poles and equipment and at building entrances through floor.
 - a. Couple steel conduits to ducts with adapters designed for this purpose, and encase coupling with 3 inches of concrete for a minimum of 12 inches on each side of the coupling.
 - b. For stub-ups at equipment mounted on outdoor concrete bases and where conduits penetrate building foundations, extend steel conduit horizontally a minimum of 60 inches from edge of foundation or equipment base. Install insulated grounding bushings on terminations at equipment.

6. Underground Warning Tape: Comply with requirements in Section 260553 "Identification for Electrical Systems."

3.4 INSTALLATION OF UNDERGROUND HANDHOLES AND BOXES

- A. Install handholes and boxes level and plumb and with orientation and depth coordinated with connecting conduits to minimize bends and deflections required for proper entrances.
- B. Unless otherwise indicated, support units on a level bed of crushed stone or gravel, graded from 1/2-inch sieve to No. 4 sieve and compacted to same density as adjacent undisturbed earth.
- C. Elevation: In paved areas, set so cover surface will be flush with finished grade. Set covers of other enclosures 1 inch above finished grade.
- D. Install handholes with bottom below frost line, below grade.
- E. Install removable hardware, including pulling eyes, cable stanchions, cable arms, and insulators, as required for installation and support of cables and conductors and as indicated. Select arm lengths to be long enough to provide spare space for future cables but short enough to preserve adequate working clearances in enclosure.
- F. Field-cut openings for conduits according to enclosure manufacturer's written instructions. Cut wall of enclosure with a tool designed for material to be cut. Size holes for terminating fittings to be used, and seal around penetrations after fittings are installed.

3.5 SLEEVE AND SLEEVE-SEAL INSTALLATION FOR ELECTRICAL PENETRATIONS

- A. Install sleeves and sleeve seals at penetrations of exterior floor and wall assemblies.

3.6 PROTECTION

- A. Protect coatings, finishes, and cabinets from damage and deterioration.
 1. Repair damage to galvanized finishes with zinc-rich paint recommended by manufacturer.
 2. Repair damage to PVC coatings or paint finishes with matching touchup coating recommended by manufacturer.

END OF SECTION 260533

SECTION 260553 - IDENTIFICATION FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.1 GENERAL REQUIREMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
- B. Examine all other Sections of the Specifications for requirements that affect work under this Section whether or not such work is specifically mentioned in this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Identification for conductors.
 - 2. Equipment identification labels.

1.3 SUBMITTALS

- A. Product Data: For each electrical identification product indicated.

1.4 QUALITY ASSURANCE

- A. Comply with ANSI A13.1 and ANSI C2.
- B. Comply with NFPA 70.
- C. Comply with 29 CFR 1910.145.

1.5 COORDINATION

- A. Coordinate identification names, abbreviations, colors, and other features with requirements in the Contract Documents, Shop Drawings, manufacturer's wiring diagrams, and the Operation and Maintenance Manual, and with those required by codes, standards, and 29 CFR 1910.145. Use consistent designations throughout Project.
- B. Coordinate installation of identifying devices with completion of covering and painting of surfaces where devices are to be applied.
- C. Coordinate installation of identifying devices with location of access panels and doors.

- D. Install identifying devices before installing acoustical ceilings and similar concealment.

PART 2 - PRODUCTS

2.1 CONDUCTOR MATERIALS

- A. Color-Coding Conductor Tape: Colored, self-adhesive vinyl tape not less than 3 mils (0.08 mm) thick by 1 to 2 inches (25 to 50 mm) wide.
- B. Marker Tapes: Vinyl or vinyl-cloth, self-adhesive wraparound type, with circuit identification legend machine printed by thermal transfer or equivalent process.

2.2 EQUIPMENT IDENTIFICATION LABELS

- A. Engraved, Laminated Acrylic or Melamine Label: Punched or drilled for screw mounting. White letters on a black background. Minimum letter height shall be 3/8 inch (10 mm).

PART 3 - EXECUTION

3.1 APPLICATION

- A. Branch-Circuit Conductor Identification: Where there are conductors for more than three branch circuits in same junction or pull box, use color-coding conductor tape. Identify each ungrounded conductor according to source and circuit number.
- B. Equipment Identification Labels: On each unit of equipment, install unique designation label that is consistent with wiring diagrams, schedules, and Operation and Maintenance Manual. Apply labels to disconnect switches and protection equipment, central or master units, control panels, control stations, terminal cabinets, and racks of each system. Systems include power, lighting, control, communication, signal, monitoring, and alarm systems unless equipment is provided with its own identification.
 - 1. Labeling Instructions:
 - a. Indoor Equipment: Engraved, laminated acrylic or melamine label.
 - 2. Equipment to Be Labeled:
 - a. Panelboards, electrical cabinets, and enclosures.
 - b. Transformers.
 - c. Disconnect switches.
 - d. Push-button stations.

3.2 INSTALLATION

- A. Verify identity of each item before installing identification products.
- B. Location: Install identification materials and devices at locations for most convenient viewing without interference with operation and maintenance of equipment.
- C. Apply identification devices to surfaces that require finish after completing finish work.
- D. Self-Adhesive Identification Products: Clean surfaces before application, using materials and methods recommended by manufacturer of identification device.
- E. Attach nonadhesive signs and plastic labels with screws and auxiliary hardware appropriate to the location and substrate.
- F. Color-Coding for Phase and Voltage Level Identification, 600 V and Less: Use the colors listed below for ungrounded service, feeder, and branch-circuit conductors.
 - 1. Colors for 208/120-V Circuits:
 - a. Phase A: Black.
 - b. Phase B: Red.
 - c. Phase C: Blue.
 - d. Neutral: White
 - e. Ground: Green
 - 2. Colors for 480/277-V Circuits:
 - a. Phase A: Brown.
 - b. Phase B: Orange.
 - c. Phase C: Yellow.
 - d. Neutral: White
 - e. Ground: Green
 - 3. Field-Applied, Color-Coding Conductor Tape: Apply in half-lapped turns for a minimum distance of 6 inches (150 mm) from terminal points and in boxes where splices or taps are made. Apply last two turns of tape with no tension to prevent possible unwinding. Locate bands to avoid obscuring factory cable markings.

END OF SECTION 260553

SECTION 260800 – COMMISSIONING OF ELECTRICAL

PART 1 - GENERAL

1.1 DESCRIPTION

- A. The purpose of this section is to specify Division 26 responsibilities in the commissioning process which are being directed by the Commissioning Authority (CA). Other electrical systems testing is required per other Division 26 specification sections.
- B. The list of commissioned equipment and systems is found in Section 019113.
- C. Commissioning requires the participation of Division 26 to ensure that all systems are operating in a manner consistent with the Contract Documents. The general commissioning requirements and coordination are detailed in Division 1. Division 26 shall be familiar with all parts of Division 1 and the commissioning plan issued by the CA and shall execute all commissioning responsibilities assigned to them in the Contract Documents.

1.2 RESPONSIBILITIES

- A. Electrical Contractor (subcontractor). The commissioning responsibilities applicable to the electrical contractor (subcontractor) are as follows (*all references apply to commissioned equipment only*):

Construction and Acceptance Phases

- 1. Include and itemize the cost of commissioning in the contract price.
- 2. In each purchase order or subcontract written, include requirements for submittal data, O&M data and training.
- 3. Attend a commissioning kick-off meeting and other necessary meetings scheduled by the CA to facilitate the Cx process.
- 4. Contractors shall provide normal cut sheets and shop drawing submittals to the CA of commissioned equipment.
- 5. Provide additional requested documentation, prior to normal O&M manual submittals, to the CA for development of start-up and functional testing procedures.
 - a. Typically this will include detailed manufacturer installation and start-up, operating, troubleshooting and maintenance procedures, full details of any owner-contracted tests, fan and pump curves, full factory testing reports, if any, and full warranty information, including all responsibilities of the Owner to keep the warranty in force clearly identified. In addition, the installation and checkout materials that are actually shipped inside the equipment and the actual field checkout sheet forms to be used by the factory or field technicians shall be submitted to the Commissioning Agent.

- b. The Commissioning Authority may request further documentation necessary for the commissioning process.
 - c. This data request may be made prior to normal submittals.
- 6. Provide a copy of the O&M manuals submittals of commissioned equipment, through normal channels, to the CA for review and approval.
 - 7. Contractors shall assist (along with the design engineers) in clarifying the operation and control of commissioned equipment in areas where the specifications, control drawings or equipment documentation is not sufficient for writing detailed testing procedures.
 - 8. Provide assistance to the CA in preparation of the specific functional performance test procedures. Subs shall review test procedures to ensure feasibility, safety and equipment protection and provide necessary written alarm limits to be used during the tests.
 - 9. Develop a full start-up and initial checkout plan using manufacturer's start-up procedures and the Startup Checklists from the CA. Submit manufacturer's detailed start-up procedures and the full start-up plan and procedures and other requested equipment documentation to CA for review.
 - 10. During the startup and initial checkout process, coordinate with the mechanical contractor/subcontractor and execute and document the electrical-related portions of the Startup Checklists provided by the CA for all commissioned equipment.
 - 11. Perform and clearly document all completed startup and system operational checkout procedures, providing a copy to the CA.
 - 12. Address current A/E punch list items before functional testing.
 - 13. Provide skilled technicians to execute starting of equipment and to execute the functional performance tests. Ensure that they are available and present during the agreed upon schedules and for sufficient duration to complete the necessary tests, adjustments and problem-solving.
 - 14. Perform functional performance testing under the direction of the CA for specified equipment in Section 019113. Assist the CA in interpreting the monitoring data, as necessary.
 - 15. Correct deficiencies (differences between specified and observed performance) as interpreted by the CA, FR and A/E and retest the equipment.
 - 16. Prepare O&M manuals according to the Contract Documents, including clarifying and updating the original sequences of operation to as-built conditions.
 - 17. During construction, maintain as-built red-line drawings for all drawings and final CAD as-builts for contractor-generated coordination drawings. Update after completion of commissioning (excluding deferred testing). Prepare red-line as-built drawings for all drawings and final as-builts for contractor-generated coordination drawings.
 - 18. Provide training of the Owner's operating personnel as specified.
 - 19. Coordinate with equipment manufacturers to determine specific requirements to maintain the validity of the warranty.

Warranty Period

- 1. Execute seasonal or deferred functional performance testing, witnessed by the CA, according to the specifications.
- 2. Correct deficiencies and make necessary adjustments to O&M manuals and as-built drawings for applicable issues identified in any seasonal testing.

1.3 RELATED WORK

- A. Refer to Section 019113 for systems to be commissioned and for functional testing requirements.

PART 2 - PRODUCTS

2.1 TEST EQUIPMENT

- A. Division 26 shall provide all test equipment necessary to fulfill the testing requirements of this Division.
- B. Refer to Section 019113 for additional Division 26 requirements.

PART 3 - EXECUTION

3.1 SUBMITTALS

- A. Division 26 shall provide submittal documentation relative to commissioning to the CA as requested by the CA. Refer to Section 019113 for additional Division 26 requirements.

3.2 STARTUP

- A. The electrical contractors shall follow the start-up and initial checkout procedures listed in the Responsibilities list in this section and in 019113. Division 26 has start-up responsibility and is required to complete systems and sub-systems so they are fully functional, meeting the design objectives of the Contract Documents. The commissioning procedures and functional testing do not relieve or lessen this responsibility or shift that responsibility partially to the Commissioning Authority or Owner.
- B. Functional testing is intended to begin upon completion of a system. Functional testing may proceed prior to the completion of systems, or sub-systems at the discretion of the CA and FR. Beginning system testing before full completion does not relieve the Contractor from fully completing the system, including all Startup checklists as soon as possible.

3.3 FUNCTIONAL PERFORMANCE TESTS

- A. Refer to Section 019113 for a list of systems to be commissioned and for a description of the process.

3.4 TESTING DOCUMENTATION, NON-CONFORMANCE AND APPROVALS

- A. Refer to Section 019113 for specific details on non-conformance issues relating to Startup Checklists and functional tests.
- B. Refer to Section 019113 for issues relating to functional performance tests.

3.5 OPERATIONS AND MAINTENANCE (O&M) MANUALS

- A. Division 26 shall compile and prepare documentation for all equipment and systems covered in Division 26 for inclusion in the O&M manuals, according to Division 1.
- B. The CA shall receive a copy of the O&M manuals for review.

3.6 TRAINING OF OWNER PERSONNEL

- A. The CO shall be responsible for training coordination and scheduling and ultimately to ensure that training is completed. Refer to Section 019113 for additional details.
- B. The CA shall be responsible for overseeing and approving the content and adequacy of the training of Owner personnel for commissioned equipment. Refer to Section 019113 for additional details.
- C. Electrical Contractor (Subcontractor). The electrical contractor (subcontractor) shall have the following training responsibilities:
 - 1. Provide the CA with a training plan two weeks before the planned training according to the outline described in Section 019113.
 - 2. Provide designated Owner personnel with comprehensive training in the understanding of the systems and the operation and maintenance of each major piece of commissioned electrical equipment or system.
 - 3. Training shall start with classroom sessions, if necessary, followed by hands on training on each piece of equipment, which shall illustrate the various modes of operation, including startup, shutdown, fire/smoke alarm, power failure, etc.
 - 4. During any demonstration, should the system fail to perform in accordance with the requirements of the O&M manual or sequence of operations, the system will be repaired or adjusted as necessary and the demonstration repeated.
 - 5. The appropriate trade or manufacturer's representative shall provide the instructions on each major piece of equipment. This person may be the start-up technician for the piece of equipment, the installing contractor or manufacturer's representative. Practical building operating expertise as well as in-depth knowledge of all modes of operation of the specific piece of equipment are required. More than one party may be required to execute the training.
 - 6. The training sessions shall follow the outline in the Table of Contents of the operation and maintenance manual and illustrate whenever possible the use of the O&M manuals for reference.
 - 7. Training shall include:

- a. Use the printed installation, operation and maintenance instruction material included in the O&M manuals.
 - b. Include a review of the written O&M instructions emphasizing safe and proper operating requirements, preventative maintenance, special tools needed and spare parts inventory suggestions. The training shall include start-up, operation in all modes possible, shut-down, seasonal changeover and any emergency procedures.
 - c. Discuss relevant health and safety issues and concerns.
 - d. Discuss warranties and guarantees.
 - e. Cover common troubleshooting problems and solutions.
 - f. Explain information included in the O&M manuals and the location of all plans and manuals in the facility.
 - g. Discuss any peculiarities of equipment installation or operation.
 - h. The format and training agenda in *Guidelines for Commissioning HVAC Systems*, ASHRAE, 1989R, 1996 is recommended.
 - i. Classroom sessions shall include the use of overhead projections, slides, video and audio taped material as might be appropriate.
8. Hands-on training shall include start-up, operation in all modes possible, including manual, shut-down and any emergency procedures and maintenance of all pieces of equipment.
 9. The electrical contractor shall fully explain and demonstrate the operation, function and overrides of any local packaged controls, not controlled by the central control system.
 10. Training shall occur after functional testing is complete, unless approved otherwise by the Project Manager.
 11. Duration of Training. The electrical contractor shall provide training on each piece of equipment according to the equipment specification sections and Division 1.

3.7. DEFERRED TESTING

- A. Refer to Section 019113 for requirements of deferred testing.

3.8 WRITTEN WORK PRODUCTS

- A. Written work products of the Contractors will consist of the startup and initial checkout plan described in Section 019113 and the filled out startup, initial checkout and Startup Checklists.

END OF SECTION 260800

SECTION 283111 - DIGITAL, ADDRESSABLE FIRE-ALARM SYSTEM

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Fire-alarm control unit.
 - 2. System smoke detectors.
 - 3. Heat detectors.
 - 4. Notification appliances.
 - 5. Remote annunciator.
 - 6. Addressable interface device.

1.3 DEFINITIONS

- A. LED: Light-emitting diode.
- B. NICET: National Institute for Certification in Engineering Technologies.

1.4 SYSTEM DESCRIPTION

- A. Noncoded, UL-certified addressable system, with multiplexed signal transmission, dedicated to fire-alarm service only.

1.5 PERFORMANCE REQUIREMENTS

- A. Seismic Performance: Fire-alarm control unit and raceways shall withstand the effects of earthquake motions determined according to SEI/ASCE 7.
 - 1. The term "withstand" means "the unit will remain in place without separation of any parts from the device when subjected to the seismic forces specified."

1.6 SUBMITTALS

- A. Product Data: For each type of product indicated.

- B. Shop Drawings: For fire-alarm system. Include plans, elevations, sections, details, and attachments to other work.
 - 1. Comply with recommendations in the "Documentation" Section of the "Fundamentals of Fire Alarm Systems" Chapter in NFPA 72.
 - 2. Include voltage drop calculations for notification appliance circuits.
 - 3. Include battery-size calculations.
 - 4. Include performance parameters and installation details for each detector, verifying that each detector is listed for complete range of air velocity, temperature, and humidity possible when air-handling system is operating.
 - 5. Include plans, sections, and elevations of heating, ventilating, and air-conditioning ducts, drawn to scale and coordinating installation of duct smoke detectors and access to them. Show critical dimensions that relate to placement and support of sampling tubes, detector housing, and remote status and alarm indicators. Locate detectors according to manufacturer's written recommendations.
 - 6. Include voice/alarm signaling-service equipment rack or console layout, grounding schematic, amplifier power calculation, and single-line connection diagram.
 - 7. Include floor plans to indicate final outlet locations showing address of each addressable device. Show size and route of cable and conduits.
- C. Qualification Data: For qualified Installer.
- D. Field quality-control reports.
- E. Operation and Maintenance Data: For fire-alarm systems and components to include in emergency, operation, and maintenance manuals. In addition to items specified in Division 01 Section "Operation and Maintenance Data," include the following:
 - 1. Comply with the "Records" Section of the "Inspection, Testing and Maintenance" Chapter in NFPA 72.
 - 2. Provide "Record of Completion Documents" according to NFPA 72 article "Permanent Records" in the "Records" Section of the "Inspection, Testing and Maintenance" Chapter.
 - 3. Record copy of site-specific software.
 - 4. Provide "Maintenance, Inspection and Testing Records" according to NFPA 72 article of the same name and include the following:
 - a. Frequency of testing of installed components.
 - b. Frequency of inspection of installed components.
 - c. Requirements and recommendations related to results of maintenance.
 - d. Manufacturer's user training manuals.
 - 5. Manufacturer's required maintenance related to system warranty requirements.
 - 6. Abbreviated operating instructions for mounting at fire-alarm control unit.
 - 7. Copy of NFPA 25.

1.7 QUALITY ASSURANCE

- A. Installer Qualifications: Personnel shall be trained and certified by manufacturer for installation of units required for this Project.
- B. Source Limitations for Fire-Alarm System and Components: Obtain fire-alarm system from single source from single manufacturer. Components shall be compatible with, and operate as, an extension of existing system.
- C. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- D. NFPA Certification: Obtain certification according to NFPA 72 by a UL-listed alarm company.

1.8 EXTRA MATERIALS

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Lamps for Remote Indicating Lamp Units: Quantity equal to 10 percent of amount installed, but no fewer than 1 unit.
 - 2. Lamps for Strobe Units: Quantity equal to 10 percent of amount installed, but no fewer than 1 unit.
 - 3. Smoke Detectors, Fire Detectors: Quantity equal to 10 percent of amount of each type installed, but no fewer than 1 unit of each type.
 - 4. Detector Bases: Quantity equal to 2 percent of amount of each type installed, but no fewer than 1 unit of each type.
 - 5. Keys and Tools: One extra set for access to locked and tamper-proofed components.
 - 6. Audible and Visual Notification Appliances: One of each type installed.
 - 7. Fuses: Two of each type installed in the system.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. SimplexGrinnell LP; a Tyco International company.

2.2 SYSTEMS OPERATIONAL DESCRIPTION

- A. Fire-alarm signal initiation shall be by one or more of the following devices:
 - 1. Manual stations.
 - 2. Heat detectors.
 - 3. Smoke detectors.
 - 4. Duct smoke detectors.
 - 5. Verified automatic alarm operation of smoke detectors.
- B. Fire-alarm signal shall initiate the following actions:
 - 1. Continuously operate alarm notification appliances.
 - 2. Identify alarm at fire-alarm control unit and remote annunciators.
 - 3. Switch heating, ventilating, and air-conditioning equipment controls to fire-alarm mode.
 - 4. Record events in the system memory.
 - 5. Record events by the system printer.
- C. System trouble signal initiation shall be by one or more of the following devices and actions:
 - 1. Open circuits, shorts, and grounds in designated circuits.
 - 2. Opening, tampering with, or removing alarm-initiating and supervisory signal-initiating devices.
 - 3. Loss of primary power at fire-alarm control unit.
 - 4. Ground or a single break in fire-alarm control unit internal circuits.
 - 5. Abnormal ac voltage at fire-alarm control unit.
 - 6. Break in standby battery circuitry.
 - 7. Failure of battery charging.
 - 8. Abnormal position of any switch at fire-alarm control unit or annunciator.
- D. System Trouble and Supervisory Signal Actions: Initiate notification appliance and annunciate at fire-alarm control unit and remote annunciators. Record the event on system printer.

2.3 FIRE-ALARM CONTROL UNIT

- A. General Requirements for Fire-Alarm Control Unit:
 - 1. Field-programmable, microprocessor-based, modular, power-limited design with electronic modules, complying with UL 864 and listed and labeled by an NRTL.
 - a. System software and programs shall be held in flash electrically erasable programmable read-only memory (EEPROM), retaining the information through failure of primary and secondary power supplies.
 - b. Include a real-time clock for time annotation of events on the event recorder and printer.
 - 2. Addressable initiation devices that communicate device identity and status.

- a. Smoke sensors shall additionally communicate sensitivity setting.
 - b. Temperature sensors shall additionally test for and communicate the sensitivity range of the device.
3. Addressable control circuits for operation of mechanical equipment.
- B. Alphanumeric Display and System Controls: Arranged for interface between human operator at fire-alarm control unit and addressable system components including annunciation and supervision. Display alarm, supervisory, and component status messages and the programming and control menu.
 1. Annunciator and Display: Liquid-crystal type, 3 line(s) of 40 characters, minimum.
 2. Keypad: Arranged to permit entry and execution of programming, display, and control commands.
- C. Circuits:
 1. Initiating Device, Notification Appliance, and Signaling Line Circuits: NFPA 72, Class B.
 - a. Initiating Device Circuits: Pathway Survivability Level 1.
 - b. Notification Appliance Circuits: Pathway Survivability Level 1.
 - c. Signaling Line Circuits: Pathway Survivability Level 1.
 - d. Install no more than 50 addressable devices on each signaling line circuit.
 2. Serial Interfaces: Two RS-232 ports for printers.
- D. Smoke-Alarm Verification:
 1. Initiate audible and visible indication of an "alarm-verification" signal at fire-alarm control unit.
 2. Activate an NRTL-listed and -approved "alarm-verification" sequence at fire-alarm control unit and detector.
 3. Record events by the system printer.
 4. Sound general alarm if the alarm is verified.
 5. Cancel fire-alarm control unit indication and system reset if the alarm is not verified.

2.4 SYSTEM SMOKE DETECTORS

- A. General Requirements for System Smoke Detectors:
 1. Comply with UL 268; operating at 24-V dc, nominal.
 2. Detectors shall be hardwired-wire type.
 3. Integral Addressable Module: Arranged to communicate detector status (normal, alarm, or trouble) to fire-alarm control unit.
 4. Base Mounting: Detector and associated electronic components shall be mounted in a twist-lock module that connects to a fixed base. Provide terminals in the fixed base for connection to building wiring.

5. Self-Restoring: Detectors do not require resetting or readjustment after actuation to restore them to normal operation.
6. Integral Visual-Indicating Light: LED type indicating detector has operated and power-on status.
7. Remote Control: Unless otherwise indicated, detectors shall be analog-addressable type, individually monitored at fire-alarm control unit for calibration, sensitivity, and alarm condition and individually adjustable for sensitivity by fire-alarm control unit.
 - a. Rate-of-rise temperature characteristic shall be selectable at fire-alarm control unit for 15 or 20 deg F (8 or 11 deg C) per minute.
 - b. Fixed-temperature sensing shall be independent of rate-of-rise sensing and shall be settable at fire-alarm control unit to operate at 135 or 155 deg F (57 or 68 deg C).
 - c. Provide multiple levels of detection sensitivity for each sensor.

B. Photoelectric Smoke Detectors:

1. Detector address shall be accessible from fire-alarm control unit and shall be able to identify the detector's location within the system and its sensitivity setting.
2. An operator at fire-alarm control unit, having the designated access level, shall be able to manually access the following for each detector:
 - a. Primary status.
 - b. Device type.
 - c. Present average value.
 - d. Present sensitivity selected.
 - e. Sensor range (normal, dirty, etc.).

C. Duct Smoke Detectors: Photoelectric type complying with UL 268A.

1. Detector address shall be accessible from fire-alarm control unit and shall be able to identify the detector's location within the system and its sensitivity setting.
2. An operator at fire-alarm control unit, having the designated access level, shall be able to manually access the following for each detector:
 - a. Primary status.
 - b. Device type.
 - c. Present average value.
 - d. Present sensitivity selected.
 - e. Sensor range (normal, dirty, etc.)
3. Weatherproof Duct Housing Enclosure: NEMA 250, Type 4X; NRTL listed for use with the supplied detector.
4. Each sensor shall have multiple levels of detection sensitivity.
5. Sampling Tubes: Design and dimensions as recommended by manufacturer for specific duct size, air velocity, and installation conditions where applied.
6. Relay Fan Shutdown: Rated to interrupt fan motor-control circuit.

2.5 HEAT DETECTORS

- A. General Requirements for Heat Detectors: Comply with UL 521.
- B. Heat Detector, Combination Type: Actuated by either a fixed temperature of 135 deg F (57 deg C) or a rate of rise that exceeds 15 deg F (8 deg C) per minute unless otherwise indicated.
 - 1. Integral Addressable Module: Arranged to communicate detector status (normal, alarm, or trouble) to fire-alarm control unit.
- C. Heat Detector, Fixed-Temperature Type: Actuated by temperature that exceeds a fixed temperature of 190 deg F (88 deg C).
 - 1. Integral Addressable Module: Arranged to communicate detector status (normal, alarm, or trouble) to fire-alarm control unit.

2.6 NOTIFICATION APPLIANCES

- A. General Requirements for Notification Appliances: Individually addressed, connected to a signaling line circuit, equipped for mounting as indicated and with screw terminals for system connections.
- B. Chimes, Low-Level Output: Vibrating type, 75-dBA minimum rated output.
- C. Horns: Electric-vibrating-polarized type, 24-V dc; with provision for housing the operating mechanism behind a grille. Comply with UL 464. Horns shall produce a sound-pressure level of 90 dBA, measured 10 feet (3 m) from the horn, using the coded signal prescribed in UL 464 test protocol.
- D. Visible Notification Appliances: Xenon strobe lights comply with UL 1971, with clear or nominal white polycarbonate lens mounted on an aluminum faceplate. The word "FIRE" is engraved in minimum 1-inch- (25-mm-) high letters on the lens.
 - 1. Rated Light Output:
 - a. 110 cd for weatherproof devices
 - b. Field selectable 15/30/75/110 cd
 - 2. Mounting: Wall mounted unless otherwise indicated.
 - 3. Flashing shall be in a temporal pattern, synchronized with other units.
 - 4. Strobe Leads: Factory connected to screw terminals.
 - 5. Mounting Faceplate: Factory finished, red.

2.7 REMOTE ANNUNCIATOR

- A. Description: Annunciator functions shall match those of fire-alarm control unit for alarm, supervisory, and trouble indications. Manual switching functions shall match those of fire-alarm control unit, including acknowledging, silencing, resetting, and testing.
 - 1. Mounting: Flush cabinet, NEMA 250, Type 1.
- B. Display Type and Functional Performance: Alphanumeric display and LED indicating lights shall match those of fire-alarm control unit. Provide controls to acknowledge, silence, reset, and test functions for alarm, supervisory, and trouble signals.

2.8 ADDRESSABLE INTERFACE DEVICE

- A. Description: Microelectronic monitor module, NRTL listed for use in providing a system address for alarm-initiating devices for wired applications with normally open contacts.

2.9 DIGITAL ALARM COMMUNICATOR TRANSMITTER

- A. Digital alarm communicator transmitter shall be acceptable to the remote central station and shall comply with UL 632 and be listed and labeled by an NRTL.
- B. Functional Performance: Unit shall receive an alarm, supervisory, or trouble signal from fire-alarm control unit and automatically capture two telephone line(s) and dial a preset number for a remote central station. When contact is made with central station(s), signals shall be transmitted. If service on either line is interrupted for longer than 45 seconds, transmitter shall initiate a local trouble signal and transmit the signal indicating loss of telephone line to the remote alarm receiving station over the remaining line. Transmitter shall automatically report telephone service restoration to the central station. If service is lost on both telephone lines, transmitter shall initiate the local trouble signal.
- C. Local functions and display at the digital alarm communicator transmitter shall include the following:
- D. Verification that both telephone lines are available.
- E. Programming device.
- F. LED display.
- G. Manual test report function and manual transmission clear indication.
- H. Communications failure with the central station or fire-alarm control unit.
- I. Digital data transmission shall include the following:
- J. Address of the alarm-initiating device.

- K. Address of the supervisory signal.
- L. Address or loss of power.
- M. Low battery.
- N. Abnormal test signal.
- O. Communication bus failure.
- P. Secondary Power: Integral rechargeable battery and automatic charger.
- Q. Self-Test: Conducted automatically every 24 hours with report transmitted to central station.
- R. Consult with Orchard Park Fire Department/ Town of Orchard Park if IP and or Radio is preferred. Is so, provide the necessary equipment.

PART 3 - EXECUTION

3.1 EQUIPMENT INSTALLATION

- A. Comply with NFPA 72 for installation of fire-alarm equipment.
- B. Equipment Mounting: Install fire-alarm control unit on finished floor with tops of cabinets not more than 72 inches (1830 mm) above the finished floor.
 - 1. Comply with requirements for seismic-restraint devices specified in Division 26 Section "Vibration and Seismic Controls for Electrical Systems."
- C. Smoke- or Heat-Detector Spacing:
 - 1. Comply with NFPA 72, "Smoke-Sensing Fire Detectors" Section in the "Initiating Devices" Chapter, for smoke-detector spacing.
 - 2. Comply with NFPA 72, "Heat-Sensing Fire Detectors" Section in the "Initiating Devices" Chapter, for heat-detector spacing.
 - 3. Smooth ceiling spacing shall not exceed 30 feet (9 m).
 - 4. Spacing of detectors for irregular areas, for irregular ceiling construction, and for high ceiling areas shall be determined according to Appendix A in NFPA 72.
 - 5. HVAC: Locate detectors not closer than 3 feet (1 m) from air-supply diffuser or return-air opening.
 - 6. Lighting Fixtures: Locate detectors not closer than 12 inches (300 mm) from any part of a lighting fixture.
- D. Duct Smoke Detectors: Comply with NFPA 72 and NFPA 90A. Install sampling tubes so they extend the full width of duct.
- E. Single-Station Smoke Detectors: Where more than one smoke alarm is installed within a dwelling or suite, they shall be connected so that the operation of any smoke alarm causes the

alarm in all smoke alarms to sound.

- F. Audible Alarm-Indicating Devices: Install not less than 6 inches (150 mm) below the ceiling. Install bells and horns on flush-mounted back boxes with the device-operating mechanism concealed behind a grille.
- G. Visible Alarm-Indicating Devices: Install adjacent to each alarm bell or alarm horn and at least 6 inches below the ceiling.
- H. Device Location-Indicating Lights: Locate in public space near the device they monitor.
- I. Fire-Alarm Control Unit: Surface mounted, with tops of cabinets not more than 72 inches above the finished floor.
- J. Annunciator: Install with top of panel not more than 72 inches above the finished floor.

3.2 CONNECTIONS

- A. For fire-protection systems related to doors in fire-rated walls and partitions and to doors in smoke partitions, comply with requirements in Division 08 Section "Door Hardware." Connect hardware and devices to fire-alarm system.
 - 1. Verify that hardware and devices are NRTL listed for use with fire-alarm system in this Section before making connections.

3.3 IDENTIFICATION

- A. Identify system components, wiring, cabling, and terminals. Comply with requirements for identification specified in Division 26 Section "Identification for Electrical Systems."
- B. Install framed instructions in a location visible from fire-alarm control unit.

3.4 GROUNDING

- A. Ground fire-alarm control unit and associated circuits; comply with IEEE 1100. Install a ground wire from main service ground to fire-alarm control unit.

3.5 FIELD QUALITY CONTROL

- A. Field tests shall be witnessed by authorities having jurisdiction.
- B. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect, test, and adjust components, assemblies, and equipment installations, including connections.
- C. Perform tests and inspections.

1. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect components, assemblies, and equipment installations, including connections, and to assist in testing.

D. Tests and Inspections:

1. Visual Inspection: Conduct visual inspection prior to testing.
 - a. Inspection shall be based on completed Record Drawings and system documentation that is required by NFPA 72 in its "Completion Documents, Preparation" Table in the "Documentation" Section of the "Fundamentals of Fire Alarm Systems" Chapter.
 - b. Comply with "Visual Inspection Frequencies" Table in the "Inspection" Section of the "Inspection, Testing and Maintenance" Chapter in NFPA 72; retain the "Initial/Reacceptance" column and list only the installed components.
2. System Testing: Comply with "Test Methods" Table in the "Testing" Section of the "Inspection, Testing and Maintenance" Chapter in NFPA 72.
3. Test audible appliances for the public operating mode according to manufacturer's written instructions. Perform the test using a portable sound-level meter complying with Type 2 requirements in ANSI S1.4.
4. Test audible appliances for the private operating mode according to manufacturer's written instructions.
5. Test visible appliances for the public operating mode according to manufacturer's written instructions.
6. Factory-authorized service representative shall prepare the "Fire Alarm System Record of Completion" in the "Documentation" Section of the "Fundamentals of Fire Alarm Systems" Chapter in NFPA 72 and the "Inspection and Testing Form" in the "Records" Section of the "Inspection, Testing and Maintenance" Chapter in NFPA 72.

- E. Reacceptance Testing: Perform reacceptance testing to verify the proper operation of added or replaced devices and appliances.
- F. Fire-alarm system will be considered defective if it does not pass tests and inspections.
- G. Prepare test and inspection reports.
- H. Maintenance Test and Inspection: Perform tests and inspections listed for weekly, monthly, quarterly, and semiannual periods. Use forms developed for initial tests and inspections.
- I. Annual Test and Inspection: One year after date of Substantial Completion, test fire-alarm system complying with visual and testing inspection requirements in NFPA 72. Use forms developed for initial tests and inspections.

3.6 DEMONSTRATION

- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain fire-alarm system.

Cattaraugus County Jail
Sheriff's Office Fire Protection Improvements
Little Valley, NY
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END OF SECTION 283111