

*Bidding Documents
for*

*Dover Ridge Water Supply – Water System Improvements
Town of Beekman, New York*

Prepared for:
Dover Ridge Water District
Town of Beekman
4 Main Street
Poughquag, NY 12570

July 8, 2019



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ADVERTISEMENT / INVITATION TO BID

The Dover Ridge Water District, hereinafter called the Owner, is soliciting bids from qualified contractors for improvements to its Dover Ridge Water Supply. The work shall generally include the installation of an atmospheric water storage tank, booster pumps, and necessary piping, wiring, and electronic controls necessary as detailed on the plans, specifications, and Engineer’s Report.

Receipt of Bids: Separate sealed bids will be received by the Owner until 10 a.m. (local time) on Monday, July 29, 2019. All bids must be made upon and in accordance with the form of proposals included in the bid package, and shall be submitted in sealed envelopes so marked “Dover Ridge Water Supply – Water System Improvements”. Bids will be opened and publicly read at Town Hall, 4 Main Street, Poughquag, NY, 12570.

Site Visits at the pump house parcel, located at 30 Stowe Drive, can be set up by appointment via the Town Clerk by calling (845)724-5300 x221.

Beginning on Monday, July 8, 2019, the Bidding Documents may be downloaded from the Town’s website: www.townofbeekman.com. Hard copies can be requested, but will be only available by request after paying a fee of \$35 to the Town of Beekman.

Bids will be considered immediately. If award is to proceed to the Successful Bidder, it will be dated within 30 days of the Bid deadline. The work is expected to commence shortly after notice of award, and must be completed no later than November 19, 2019, absent any Act of God or other catastrophic event. Contractors who cannot accommodate this schedule shall not submit bids. Contractors shall include a proposed schedule of work with their bids and shall be able to demonstrate their qualifications with references.

OWNER’S RIGHTS RESERVED: The Owner reserves the right to reject any or all bids and to waive any formality or technicality in any Bid in the interest of the Owner.

STATEMENT OF NON-COLLUSION: Bidders are required to execute the non-collusion bidding certificate presented within the Bid Package, pursuant to Section 103-d of the General Municipal Law of the State of New York.

BONDING: Bidders are required to supply a bid bond in the amount of 10% of the bid amount.

Bidders are also required to comply with the provision of Section 291-299 of the Executive Law of the State of New York regarding discrimination.

The Owner hereby notifies all Bidders that it will affirmatively insure that in regard to any Contract entered into pursuant to this invitation, minority business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color or national origin in consideration for any award.

The award of this contract will be made to the lowest priced, responsive, responsible bidder, who has complied with the specifications. When there is a discrepancy between unit price and total price, unit price shall prevail.

Prevailing Wage Rates in the State of New York apply to this Contract – the Prevailing Wage Case Number for the project is PRC# 2019008454. The schedule is provided in Attachment D.

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LIST OF ATTACHMENTS

<u>DWG. NO.</u>	<u>DWG. TITLE</u>	<u>REVISION</u>	<u>DATE</u>
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ATTACHMENT A: CONTRACT DOCUMENTS

Agreement Between Owner and Contractor
Non-Collusion Certification
Insurance Requirements

ATTACHMENT B: SITE/CIVIL DRAWINGS

1 of 4	Water System Improvement Plan – Dover Ridge		5/21/19
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ATTACHMENT D: PREVAILING WAGE SCHEDULE

Prevailing Wage Schedule

END OF SECTION

SECTION 00200

INSTRUCTIONS TO BIDDERS

ARTICLE 1 - RECEIPT AND OPENING OF BIDS

Sealed Bids for the Work described herein will be received by the Owner:

At: Town of Beekman
4 Main Street
Poughquag, NY 12570

Attention: Dover Ridge Water Supply – Water System Improvements

Until: 10:00 am, July 29, 2019

All Bids shall be submitted to the Owner in duplicate on the Proposal forms provided in the Contract Documents. The Proposal forms must be fully completed, executed in longhand, signed, sealed and shall be submitted without interlineations, alteration or erasure. All blank spaces for Bid prices must be filled in, either handwritten in ink or typewritten, and the prices for the proposed Work must be entered in both words and figures. (In case of discrepancy, the price entered in words shall be considered to be the Bid Price.)

After the Bids are opened, they will be taken under advisement, and action with respect to them will be taken within a reasonable period of time. In any event, the Bid submitted shall remain in effect for at least forty-five (45) calendar days.

The Owner reserves the right to waive any informality in the Bids and to reject any or all Bids.

ARTICLE 2 - BIDDERS TO INVESTIGATE

Prior to submission of the Bid, the Bidder shall personally examine all the Contract Documents and the location of the proposed Work and shall exercise judgment in determining the nature and difficulty of the entire Project. The Bidder shall assume all risk of variance in any computation or statement of amounts or quantities necessary to complete the Work required by the Contract, by whomsoever made, and shall agree to furnish all labor, plant, material and equipment to fully complete the said Work in accordance with the Contract Documents for the proposal Bid Price and/or Unit Prices.

The Bidder shall assume all risk as to the character of the material to be excavated, with the exception of rock, as hereinafter provided. The Bidder shall also assume all risk as to the presence or absence of water and all other contingencies attending the Work.

It shall be the obligation of each Bidder to satisfy himself by personal examination of the site that the existing conditions and topography shown on the Drawings, taken from a completed topographical survey made by a land surveyor, is accurate. No claim for extra compensation for inaccuracies of existing conditions and/or topography will be allowed after the Bids are submitted.

If test borings have been taken on the site, the information will be made available to the Bidders, upon request. The information obtained from these borings will be shown on the Boring Contractor's logs or drawings and may be obtained from the Owner. Neither the Owner, nor Town Engineer assumes any responsibility for their accuracy. It is supplied only for the general information of the Bidders and is not guaranteed. Variation therefrom shall not affect the terms of the Contract.

The Bidder whose Bid is accepted and who enters into the Contract with the Owner shall be responsible for every loss or error arising from ignorance concerning the requirements of the Work or the difficulties encountered during the progress of the Work.

ARTICLE 3 - PREPARATION OF PROPOSAL

Proposals shall not be qualified in any manner and shall not contain any recapitulation of the Work to be done. No oral, telegraphic, or telephonic proposals or modifications will be considered. Requests for substitutions, however, will be considered if presented in accordance with the requirements as further set forth hereinafter.

Should the Bidder find discrepancies in, or omissions from, the Contract Documents, or should the Bidder be in doubt as to their meaning, he shall at once, and in any event, not less than ten (10) days prior to submission of the Proposal, notify the Town Engineer in writing who will issue, if necessary, Addenda to all Bidders, instructing them regarding such item or items. Neither the Owner nor Town Engineer will be responsible for any oral instructions.

All Addenda issued during the time of Bidding shall become a part of the Contract Documents and shall be included in the price and/or prices submitted under the Bid Proposal, and in executing the Contract they will become a part thereof.

The bidding for Work, which is to be performed under this Contract, shall be on the basis called for on the Proposal. Additions to or deductions from the amount of Work covered by the Contract Documents shall be made in accordance with the Schedule of Unit Prices contained in the Proposal.

The Bid shall include a guarantee, by the Bidder, of all work performed, for a period of one (1) year from the date of acceptance of the entire Work by the Owner, as hereinafter provided.

The Bidder shall enter prices for all items requested in the Bid Proposal including all Alternates.

The Owner reserves the right to compare and award the Contract on the basis of Base Bid only or the Base Bid and any combination of alternates that it may select.

ARTICLE 4 - SUBSTITUTIONS

If the Bidder wishes to substitute a product, material or item of equipment for a specified product, material or item of equipment, he may request to do so on a separate document which shall indicate the credit that will be allowed the Owner if the particular product, material or item of equipment is accepted as a substitute and also the reason for the substitution. Request for substitution shall also include descriptive literature, specifications, drawings and all other documentation to support the Bidder's request for substitution.

Substitution of a specified product, material or item of equipment will only be considered if submitted in writing with the Bid Proposal and includes all documentation described above. After the contract is award, substitutions will only be permitted if failure to allow the submission will effect the schedule for completion of the work.

The Town Engineer will be the judge in determining if the requested substitution will be allowed, and the Bidder shall make no claim if the request for substitution is disallowed.

ARTICLE 5 - TIME FOR EXECUTING CONTRACT

The Bidder whose Proposal is accepted, shall within thirty (30) calendar days after service of the Notice of Award, enter into and execute a written Contract to furnish all labor, plant, material and equipment to complete the Work. The parties shall enter into a contract within 45 days of the bid opening unless this time period is extended by the parties in writing.

The Contract shall be provided by the Owner.

ARTICLE 6 - TIME TO COMPLETE WORK

The Contractor's attention is directed to the fact that time is of the essence under this Contract and that all Work must be commenced immediately and be completed and operational by November 15, 2019, barring unforeseen, prolonged, inclement weather conditions. If this Completion Date cannot be met, the Bidder shall indicate a revised date in his Proposal and the reason why the Completion Date cannot be met.

ARTICLE 7 - BONDS REQUIRED

Bidders are required to supply a bid bond in the amount of 10% of the bid amount (or cash in-lieu) as well as a 10% performance bond (or cash in-lieu).

ARTICLE 8 - INSURANCE REQUIRED

The Contractor shall obtain and continue in effect during the life of the Contract, insurance in accordance with the provisions as fully set forth herein and in the amounts specified.

ARTICLE 9 - GENERAL

The Owner may make such investigation as he deems necessary to determine the ability of the Bidder to perform the Work, and the Bidder shall furnish to the Owner all such information and data for this purpose as the Owner may request.

The Owner reserves the right to reject any Bid if the evidence submitted by, or investigation of, such Bidder fails to satisfy the Owner that such Bidder is properly qualified to carry out the obligations of the Agreement and to complete the Work contemplated therein, or for any other reason as determined by the Owner.

All applicable laws, ordinances, rules and regulations of all Authorities having jurisdiction over the Work shall apply to the Contract throughout and shall be adhered to by the Contractor.

END OF SECTION

SECTION 00540

UNIT PRICE SCHEDULE

<u>Contract Item</u>	<u>Total Price</u>
A. Abandon Existing Underground Water Storage Tank	\$ _____
B. New Atmospheric Water Tank (Complete with excavation and bedding)	\$ _____
C. Remove Existing Booster Pumps	\$ _____
D. Two (2) New Booster Pumps with Variable Frequency Drives	\$ _____
E. New Bladder Tank	\$ _____
F. Schedule 80 2" PVC Supply Line (Complete with restraints, trenching/backfill, bedding)	\$ _____
G. Schedule 80 4" PVC Discharge Line (Complete with restraints, trenching/backfill, bedding)	\$ _____
H. Schedule 40 4" PVC Tank Drain (Including trenching/backfill & bedding)	\$ _____
I. Extend Well Casing	\$ _____
G. Existing Pump House Piping Modifications (Complete with fitting, supports, etc.)	\$ _____
G. Remove and Replace Electrical Control Panel (Complete with wiring, conduit, controls, etc.)	\$ _____
J. Grass lined diversion swale	\$ _____
K. General Site Work (Site Prep., Earthwork, Erosion Control, Topsoil, Seed, etc.)	\$ _____
TOTAL CONTRACT PRICE	\$ _____

Contractor is to provide unit prices for the following items in the event that quantities differ from what was assumed for bid and/or for changes in scope.

	<u>UNIT</u>	<u>UNIT PRICE</u>	
		<u>ADD</u>	<u>DEDUCT</u>
<u>SITE PREPARATION</u>			
1. Clearing and Grubbing	Acre	\$ _____	\$ _____
2. Topsoil (Measured in place)			

a.	Stripping & stockpiling topsoil	C.Y.	\$ _____	\$ _____
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EARTHWORK

1. Channels and Ditches
(Measured in place)

a.	Ditch Excavation	C.Y.	\$ _____	\$ _____
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2. Excavation and Backfill

a.	Earth general excavation placed as compacted fill at 95% dry density, measured in place prior to excavation.	C.Y.	\$ _____	\$ _____
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b.	Earth general excavation placed as compacted fill at 92% dry density, measured in place prior to excavation.	C.Y.	\$ _____	\$ _____
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c.	Removal and disposal of unsuitable soil material, including replacement with suitable compacted earth, measured in section after compaction.	C.Y.	\$ _____	\$ _____
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TRENCHING AND BACKFILL

a.	Earth trench excavation and replacement as compacted fill at 92% dry density, measured in place prior to excavation	C.Y.	\$ _____	\$ _____
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b.	Rock, trench excavation, and disposal, replacement with suitable borrow fill, measured in place prior to excavation.	C.Y.	\$ _____	\$ _____
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c.	Removal and disposal of unsuitable soil material, including replacement with suitable compacted earth, measured in section			
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	after compaction.	C.Y.	\$ _____	\$ _____
d.	Aggregate Trench Backfill	C.Y.	\$ _____	\$ _____

EROSION AND SEDIMENT CONTROL

1.	Silt Fencing	l.f.	\$ _____	\$ _____
2.	Construction Fencing	l.f.	\$ _____	\$ _____
3.	Stabilized Construction Entrance	s.y.	\$ _____	\$ _____

UNDERGROUND WATER PIPING

1.	Complete in place, including trenching, backfill, and bedding.			
a.	Schedule 80 2" PVC	L.F.	\$ _____	\$ _____
b.	Schedule 80 4" PVC	L.F.	\$ _____	\$ _____
c.	Schedule 40 4" PVC	L.F.	\$ _____	\$ _____

TOPSOIL AND SEEDING

1.	Clearing and Grubbing	Ac.	\$ _____	\$ _____
2.	Topsoil & Seed	Ac.	\$ _____	\$ _____

SECTION 00700

GENERAL CONDITIONS OF THE CONTRACT

ARTICLE 1 - DEFINITIONS

Wherever used in the Contract Documents, the following terms shall have the meanings indicated which shall be applicable to both the singular and plural thereof:

ADDENDA - Written or graphic instruments issued by the Engineer prior to the execution of the Agreement, which modify or interpret the Contract Documents by additions, deletions, clarifications or corrections.

AGREEMENT - Agreement for Construction between Owner and Contractor.

BID - The Proposal of the Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

BIDDER - Any individual, partnership, firm or corporation submitting a Bid for the Work.

BONDS - Performance and/or Payment Bonds and other instruments of security, furnished by the Contractor and his Surety in accordance with the Contract Documents.

CHANGE ORDER - Written order to the Contractor by the Owner authorizing an addition, deletion or revision in the Work, which requires an adjustment in the Contract Sum or Contract Time.

COMPLETION - The finishing of all Work of the Contract and certification to same by the Owner, and the beginning of the guarantee period by the Contractor. (See "Substantial" Completion.)

CONTRACT - A written Agreement provided by the Owner setting forth the obligations of the parties thereunder, for the performance of all Work and obligations defined in the Contract Documents.

CONTRACT DOCUMENTS - The Contract, which shall include Advertisement for Bids, Instruction to Bidders, Agreement for Construction, General Conditions and Supplementary General Conditions, Drawings, Specifications, Addenda, and Change Orders.

CONTRACT SUM, CONTRACT PRICE - The total monies due and payable to the Contractor by the Owner for performance of the Work under the Contract Documents.

CONTRACT TIME - The number of calendar days stated in the Contract Documents for the completion of the Work.

CONTRACTOR - The individual, partnership, firm or corporation with whom the Owner has executed the Agreement.

ENGINEER, TOWN - Hudson Land Design Professional Engineering, P.C., the organization licensed to practice engineering and referred to throughout the Contract Documents as if singular in number and masculine in gender. The term Town Engineer means the Town Engineer or his authorized representative.

EXTRA WORK - The term "Extra Work" shall include work required by the Owner, which in the judgement of the Engineer, involves changes in, or additions to, that required by the Drawings and Specifications in their Contract form.

FIELD ORDER - A written order issued by the Owner's Field Representative to the Contractor during the

progress of the Work effecting a change in the Work but not involving an adjustment in the Contract Sum or an extension of the Contract Time.

NOTICE OF AWARD - The written notice of the acceptance of the Bid issued by the Owner to the successful Bidder.

OWNER - The individual, partnership, firm or corporation, for whom the Work is to be performed.

OWNER'S FIELD REPRESENTATIVE - The authorized representative of the Owner who is assigned to the Work.

PROJECT - The complete undertaking as specified in the Contract Documents, of which the Work may be all or a part thereof.

SHOP DRAWINGS - All drawings, diagrams, illustrations, brochures, schedules and other data requested under the terms of the Contract Documents or by the Engineer and submitted by the Contractor, which are prepared by the Contractor, a Subcontractor, manufacturer, or distributor and which indicate specifications for materials, equipment, fabrication and installation.

SUBCONTRACTOR - An individual, partnership, firm or corporation having a direct contract with the Contractor or with any other Subcontractor for the performance of a part of the Work. All Subcontractors shall be approved by the Owner.

SUBSTANTIAL COMPLETION - The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof.

SUPPLEMENTAL GENERAL CONDITIONS - Modifications to General Conditions as included in the Contract Documents.

SUPPLIERS - Any individual, partnership, firm or corporation supplying materials or equipment to be incorporated in the Work.

UNIT PRICE - The price for each item of Work (when requested) which will be compensation in full for all labor, plant, material, equipment, supervision, tools, scaffolding, appurtenances, insurance, engineering, freight, travel, job expenses, telephone, overhead and profit, guarantees, sales taxes, etc.

WORK - The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.

WRITTEN NOTICE - Written notice shall be deemed to have been duly served if delivered in person to the individual, or member of the firm, or to an officer of the corporation for whom it was intended, or if delivered at or sent by registered or certified mail to the last business address known to him who gives the notice.

ARTICLE 2 - CONTRACT DOCUMENTS

2.01 EXECUTION

The Contract Documents shall be signed in triplicate by the Owner and the Contractor. In the event that the Owner and the Contractor fail to sign any of the Contract Documents, the Engineer shall identify them, upon

request of either party.

By signing the Contract Documents, the Contractor represents that, by personal examination of the site and the Contract Documents, he has satisfied himself as to the nature, location and scope of the Work, the conformation of the ground, the character, quality and quantity of the materials to be encountered, the character of equipment and facilities needed preliminary to and during the prosecution of the Work, the general and local conditions, and all other matters which can in any way affect the Work under this Contract.

2.02 CORRELATION

The Contract Documents are complementary, and what is required by any one shall be as binding as if required by all. The intention of the Contract Documents is to include all labor, plant, materials and equipment necessary for the proper execution of the Work, and shall include all incidental work necessary to complete the Work ready for use, occupancy and operation by the Owner.

In case of conflict between the Drawings and Specifications, the Specifications shall govern. Figure dimensions given on the Drawings shall govern over scaled dimensions and detailed Drawings shall govern over general Drawings.

Any discrepancies found between the Drawings, Specifications and site conditions or any inconsistencies or ambiguities in the Drawings or Specifications shall be immediately reported to the Engineer in writing. Work performed by the Contractor after the Contractor's discovery of such discrepancies, inconsistencies or ambiguities, without the Engineer's approval shall be performed at the Contractor's risk.

2.03 INTENT

Materials or work described in words, which so applied, have a well-known technical or trade meaning shall be held to conform to such recognized standards, subject, however, to the approval of the Engineer.

2.04 INTERPRETATION

Either party to the Contract may request that the Contractor be furnished such reasonable additional instructions and detailed Drawings, by the Engineer, as necessary to carry out the Work required by the Contract Documents. The additional instructions and Drawings thus supplied shall become a part of the Contract Documents and the Contractor shall carry out the Work in accordance therewith. Such instructions shall be consistent with and reasonably inferable from the Documents.

2.05 OWNERSHIP OF DOCUMENTS

All Drawings, Specifications, Addenda, and copies thereof furnished by the Engineer are the Engineer's property. They shall not be used on other work and, with the exception of the signed Contract set, are to be returned to the Engineer upon request at the completion of the Work.

Unless otherwise provided in the Contract Documents the Owner will furnish to the Contractor, free of charge, two (2) copies of all Drawings and Specifications. All additional prints and Specifications issued to the Contractor including Addenda, modifications, etc. shall be paid for by the Contractor.

ARTICLE 3 - ENGINEER'S DUTIES AND STATUS

3.01 ENGINEER'S DUTIES

The Engineer will clarify and explain the intent of the Contract Documents as reasonably required. He will be responsible for review of Shop Drawings as more fully set forth herein.

The Engineer may also furnish observation of Construction, subject to the terms of his contract with the Owner, for compliance of the Work with the Contract Documents.

Since the Engineer will not be continuously present in the field, it is specifically understood that he does not undertake nor assume any obligation for supervision of construction, safety measures taken during the course of construction, responsibility for scheduling the Work or for insuring complete compliance with the Contract Documents and/or any and all code requirements, rules and regulations of any Public or Private authority having jurisdiction over the whole or any part of the Work. In addition, the Engineer neither undertakes, assumes, nor guarantees the Work and/or performance of the Contractor.

3.02 ENGINEER'S STATUS

The Engineer will have authority to observe the Work for compliance with the Contract Documents and have such tests made, as he deems advisable, as provided elsewhere herein.

All decisions of the Engineer with regard to technical interpretation of the Contract Documents shall be final. All other decisions shall be deemed to be advisory only.

The Engineer will have the authority to conduct observations to determine dates of Substantial Completion and Completion.

Nothing contained in the Contract Documents shall create any contractual relationship between the Engineer and the Contractor.

ARTICLE 4 - OWNER

4.01 OWNER'S FIELD REPRESENTATIVE

The Owner's Field Representative shall coordinate the progress of the Work. He shall have authority to stop the Work whenever such stoppage may be necessary to insure the proper execution of the Contract. He shall also have authority to reject all work and materials which do not conform to the Contract Documents, to direct the application of work forces to any portion of the Work, and/or to order the work force increased or diminished during the progress of the Work as, in his judgement, is required and to decide questions which arise in regard to the execution of the Work.

Important directions will be confirmed to the Contractor in writing by the Owner's Field Representative or Engineer. Other directions shall be so confirmed on written request.

4.02 RIGHT TO CONTINUE WORK

If the Contractor defaults or neglects to prosecute the Work properly or fails to perform any provision of this Contract, the Owner, may, after three (3) days written notice to the Contractor, and, without prejudice to any other remedy he may have, make good such deficiencies and may deduct the cost thereof from the payment then or thereafter due the Contractor.

4.03 PROVIDE LAND

The Owner shall provide the lands upon which the Work under this Contract is to be performed and/or easements thereon.

ARTICLE 5 - CONTRACTOR

5.01 REVIEW OF CONTRACT DOCUMENTS AND FIELD CONDITIONS

The Contractor shall carefully study and compare the Contract Documents and shall at once report to the Engineer any apparent error, inconsistency or omission he may discover. The existing conditions shown on the Drawings have been acquired from field survey by a Licensed Land Surveyor, however, prior to beginning work, the Contractor shall agree that the conditions shown on the Drawings are accurate, including the location of subsurface utilities and structures. Any error, inconsistency, or omission he may discover shall be reported immediately to the Engineer. The Contractor shall do no Work until suitable instructions are given by the Engineer. Thereupon, the Contractor shall not be liable to the Owner or the Engineer for any damage resulting from any such errors, inconsistencies or omissions in the Contract Documents.

If the Contractor in the course of the Work finds any apparent discrepancy between the Contract Documents and physical conditions, or any errors or omissions in the Contract Documents or in surveys or control points given, it shall be his duty to immediately inform the Owner's Field Representative and the Engineer in writing, and the Owner's Field Representative and/or Engineer will promptly investigate and correct same, if necessary. Any Work performed after such discovery, unless authorized by the Owner's Field Representative, is performed at the Contractor's risk.

5.02 CONTRACTOR'S OBLIGATION

The Contractor shall do all the Work and furnish all the labor, plant, materials, tools, and appliances necessary and proper for performing and completing the Work required by this Contract, in the manner specified.

All the work, labor and materials to be performed and furnished under this Contract shall be performed and furnished strictly pursuant to, and in conformity with the Contract Documents and directions of the Owner's Field Representative and/or Engineer as given from time to time during the progress of the Work.

The Contractor shall complete all Work under this Contract to the satisfaction of the Owner and the Engineer, and in accordance with the Contract Documents.

5.03 SCHEDULES, REPORTS AND RECORDS

The Contractor shall submit to the Owner such schedule of quantities and costs, progress schedules, reports, estimates, records and other data as the Owner and/or Owner's Field Representative may request concerning Work performed or to be performed.

Within two (2) weeks after Notice to Proceed, the Contractor shall submit schedules showing the order in which he proposes to carry out the Work, including dates at which he will start the various parts of the Work, estimated date of completion of each part to ascertain completion of the Work within the Contract Time allotted, and, as applicable:

- (1) The dates at which special Detail Drawings will be required; and
- (2) The dates for submission of Shop Drawings, beginning of manufacture, testing, delivery to the job site, and the installation of materials, supplies and equipment.

The Contractor shall also submit a schedule of payments that he anticipates he will earn during the course of the Work.

5.04 FIELD OFFICE

The Contractor, until all work covered by this Contract is accepted by the Owner, shall provide a temporary office structure at the job site, with sanitary facilities and parking facilities. It shall include separate space for the Owner's Field Representative, with storage and desk space, all to the satisfaction of the Owner. There shall be adequate heat and light and the office shall be maintained clean and neat by the Contractor.

5.05 SUPERVISION BY CONTRACTOR

The Contractor shall provide adequate and efficient supervision and direction of the Work. He shall be solely responsible for the means, methods, techniques, sequences and procedures of construction. The Contractor shall employ and maintain on the Work a qualified Supervisor who shall be satisfactory to the Owner and who shall be designated in writing by the Contractor as the Contractor's representative at the site. The Supervisor shall have full authority to act on behalf of the Contractor and all communications given to the Supervisor shall be as binding as if given to the Contractor. The Supervisor shall be present on the site at all times as required to perform adequate supervision and coordination of the Work.

The Contractor shall employ only competent persons to do the Work, and whenever the Owner's Field Representative shall notify the Contractor, in writing, that any person on the Work is, in his opinion, incompetent, unfaithful, disorderly, or otherwise unsatisfactory, such person or persons shall be discharged from the Work, and shall not again be employed on it, except with the consent of the Owner's Field Representative.

The Contractor shall at all times enforce strict discipline and good order among his employees.

5.06 CONDUCT OF THE WORK

The Contractor shall conduct the Work in such manner as to interfere as little as possible with travel on the highways, and the Contractor shall observe all ordinances and statutes relating to obstructing the highway.

The Contractor shall provide railings or suitable barricades, signs and lights as required by the Owner's Field Representative to prevent accidents or injury to persons, vehicles or animals. The Contractor shall also provide traffic directional personnel to direct traffic should conditions warrant same, as determined by the Owner's Field Representative, at no additional cost to the Owner.

The Contractor shall take every precaution to minimize and control all odors, smoke, noise, dust, nuisance, vibration or disturbances caused by machinery, pumping, compressing, blasting, trucking or by any of the Contractor's or Subcontractor's operations, and the Contractor shall be liable for all damage therefore or for violations of any and all present and future laws, ordinances or regulations relating to same until completion of the Work.

The Contractor shall schedule and conduct operations to minimize erosion of soil and to prevent muddying of streams, rivers, impoundments and lands adjacent to or affected by the Work. Construction of drainage facilities and other Contract Work which will contribute to erosion and sedimentation shall be carried out in conjunction with earthwork operations or as soon thereafter as practicable so that the area of bare soil exposed at any one time by construction operations will be kept to a minimum. The conduct of all Work to be performed under this Contract shall be carried out in accordance with all laws, ordinances and regulations relating to soil erosion and water pollution control, and the Contractor shall be held liable for violation of any and all such laws, ordinances and regulations.

Materials, supplies or equipment to be incorporated into the Work shall not be purchased by the Contractor or Subcontractors subject to a chattel mortgage or under a conditional sales contract or other agreement by which an interest is retained by the seller.

Materials and equipment shall be stored so as to insure the preservation of their quality and fitness for the Work. Stored materials and equipment which are to be incorporated in the Work shall be located and stored in a manner that will facilitate prompt inspection by the Owner's Field Representative or the Engineer.

Material which is stored on the site or has been installed and incorporated into the Work and which is not in conformance with the Contract Documents shall be considered to be defective and, upon written order by the Owner's Field Representative, shall be removed and replaced with material which conforms with the Contract Documents, at no additional cost to the Owner.

Should any work be covered or installed so that inspection and tests cannot be made in accordance with the requirements as specified under the various Sections of the Specifications, then the Contractor will be required to uncover or remove portions of the finished work as necessary so that these inspections and tests can be made and replace same in accordance with the Drawings and Specifications to the satisfaction of the Owner's Field Representative and the Engineer. The uncovering, taking down and replacing shall be at the expense of the Contractor.

Manufactured articles, materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned as directed by the manufacturer.

Upon completion of all the Work and before final payment is made, the Contractor shall remove from the site and all public and private property all excess material, debris, temporary structures, tools, and equipment resulting from the Contractor's operations, and shall leave the entire premises in a neat condition to the satisfaction of the Owner's Field Representative.

5.07 SUBSURFACE CONDITIONS

The Contractor shall promptly, and before such conditions are disturbed, except in the event of an emergency, notify the Owner's Field Representative and the Engineer by Written Notice, in the event:

- (1) Subsurface or latent physical conditions at the site differ materially from those indicated in the Contract Documents; or
- (2) Unknown physical conditions at the site, of an unusual nature, differ materially from those ordinarily encountered and generally recognized as inherent in the Work of the character provided for in the Contract Documents.

The Engineer shall promptly investigate the conditions, and if he finds that such conditions do so materially differ, such that they will cause an increase or decrease in the cost of, or in the time required for, performance of the Work, an equitable adjustment shall be made and the Contract Sum and/or Time shall be modified by a Change Order. Any claim of the Contractor for adjustment hereunder shall not be allowed unless he has given the required written Notice, provided that the Owner may, if he determines the facts so justify, consider and adjust any such claims asserted before the date of final payment.

5.08 ACCESS TO THE WORK

The Owner, the Engineer and their representatives shall at all times have access to the Work. The Contractor shall provide proper access facilities for observation, inspection, and testing of the Work as required by the Owner's Field Representative and Engineer.

If any Work is covered from view contrary to the Specifications or the written request of the Owner's Field Representative or the Engineer, or contrary to laws, ordinances, rules and regulations of public or private authorities having jurisdiction, it must, if requested by the Owner's Field Representative or Engineer, be uncovered for observation, corrected if necessary, and recovered at the Contractor's expense.

If any Work has been covered from view which is not contrary to the Specifications or laws, ordinances, rules and regulations of public or private authorities having jurisdiction, and which the Owner's Field Representative or Engineer has not specifically requested to observe prior to its being covered, and if the Owner's Field Representative or Engineer considers it necessary or advisable that said covered Work be inspected or tested by others, the Contractor upon request shall uncover, expose or otherwise make available for observation, inspection or testing as may be required, that portion of the Work in question, furnishing all necessary labor, materials, tools and equipment. If it is found that such Work is defective, The Contractor shall bear all the expenses of such uncovering, exposure, observation, inspection and testing and of satisfactory reconstruction. If, however, such

Work is not found to be defective, the Contractor will be allowed an increase in the Contract Sum or an extension of the Contract Time, or both, directly attributable to such uncovering, exposure, observation, inspection and testing, and an appropriate Change Order will be issued.

5.09 INSPECTION AND TESTING

All materials and equipment used in the Construction of the Work shall be subject to adequate inspection and testing as specified in the Contract Documents and as directed by the Engineer.

All inspection and testing as specified in the Contract Documents shall be paid for by the Contractor. The Owner may, at Owner's expense, provide additional inspection and testing services not specifically required by the Contract Documents.

If the Contract Documents and/or laws, ordinances, rules, regulations or orders of any private or public authority having jurisdiction require any work specifically to be inspected, tested, or approved by persons or parties other than the Contractor, then the Contractor shall upon completion of that portion of the Work serve notice to the Owner that said portion of the Work is ready for testing. The Contractor shall be responsible for obtaining the required certificates of inspection, testing or approval and delivering same to the Engineer.

Neither observations by the Engineer nor inspections, tests or approvals by persons or parties other than the Contractor shall relieve the Contractor from his obligations to perform the Work in accordance with the requirements of the Contract Documents.

5.10 GUARANTEES

The Contractor warrants to the Owner that all equipment, material and workmanship will be new and in strict conformity with the Contract Documents.

The Contractor will be held responsible for the entire Work until its completion and acceptance, and any imperfect work that may be discovered at any time before the final Completion and acceptance of same shall be corrected immediately upon the direction of the Owner's Field Representative.

The Contractor further guarantees that he will replace and/or repair any defective work, material or equipment for a period of one (1) year after the date of final acceptance of the completed Work by the Owner at the Contractor's sole expense. The Contractor also guarantees that all such defective work, material or equipment shall be replaced and/or repaired promptly upon receipt of written notification by the Owner and to the complete satisfaction of the Owner.

If the Owner's Field Representative deems it not expedient to correct work that has been damaged or work that has been performed contrary to the Contract Documents, an equitable deduction, as determined by the Engineer, shall be made from the Contract Sum therefor.

ARTICLE 6 - PROTECTION OF PERSON AND PROPERTY

6.01 SAFETY PRECAUTIONS

The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. He shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to all employees on the Work and other persons who may be affected thereby, all the Work and all materials or equipment to be incorporated therein, whether in storage on or off the site, and other property at the site or adjacent thereto, including, but not limited to, trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.

The Contractor shall comply with all applicable safety laws, ordinances, rules and regulations and orders of any agency having jurisdiction. He shall erect and maintain, as required by the conditions and progress of the Work, all necessary safeguards for safety and all damage, injury or loss to any property caused, directly or indirectly, in whole or in part, by the Contractor, any Subcontractor or anyone directly or indirectly employed by any of them or anyone for whose acts any of them be liable.

Damage or loss attributable to the fault of the Contract Documents or to the acts or omission of the Owner or the Engineer or anyone employed by either of them or anyone for whose acts either of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of the Contractor shall not be the responsibility of the Contractor.

In emergencies affecting the safety of persons or the Work or property at the site or adjacent thereto, the Contractor, without special instruction or authorization from the Owner or Engineer, shall act to prevent threatened damage, injury or loss. The Contractor shall give the Owner and Engineer prompt Written Notice of any significant changes in the Work or deviations from the Contract Documents caused thereby, and a Change Order will thereupon be issued covering the changes and deviations involved, if such were required because of provisions of the Contract Documents.

6.02 LAWS, ORDINANCES, RULES AND REGULATIONS

The Contractor shall obtain all Permits and Licenses necessary and required for the prosecution of the Work, and he shall post all bonds and deposits and pay all fees and charges in connection with obtaining same.

The Contractor shall give all notices and comply with all laws, ordinances, rules and regulations as required by all authorities having jurisdiction bearing on the conduct of the Work as specified.

If any of the Contractor's work is performed contrary to such laws, ordinances, rules and regulations, and/or without the required notices, he shall bear all costs arising therefrom.

The Contractor shall also give prior written notice to all concerned utility companies, agencies, authorities, owners, etc., at least seventy-two (72) hours in advance of commencing any work on this Contract.

ARTICLE 7 - PAYMENTS

7.01 PROGRESS PAYMENTS

At least ten (10) days before each progress payment falls due (but not more often than once a month), the Contractor will submit to the Owner's Field Representative a partial payment estimate filled out and signed by the Contractor covering the Work performed during the period covered by the partial payment estimate and supported by such data as the Owner's Field Representative may reasonably require.

If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at or near the site, the partial payment estimate shall also be accompanied by such supporting data, satisfactory to the Owner, as will establish the Owner's title to the material and equipment and protect his interest therein, including applicable insurance.

The Contractor warrants that title to all Work covered by partial payment made shall be free and clear of liens or other encumbrances and shall thereupon become the sole property of the Owner. This provision shall not be construed as relieving the Contractor of the sole responsibility for the care and protection of the Work upon which payments have been made, or the restoration of any damaged Work, or as a waiver of the right of the Owner to require the fulfillment of all terms of the Contract Documents.

The Owner will, within ten (10) days after receipt of each partial payment estimate, either indicate in writing his approval of the payment estimate to the Contractor or indicate in writing his reasons for refusing to approve

payment. In the latter case, the Contractor may make the necessary corrections and resubmit the partial payment estimate. The Owner will, within twenty (20) days of presentation to him of an approved partial payment estimate, pay the Contractor a progress payment on the basis of the approved partial payment estimate. The Owner will retain ten (10) percent of the amount of each payment until final completion and acceptance of all work covered by the Contract Documents. The Owner may, however, at his option at any time after fifty (50) percent of the Work has been completed and satisfactory progress is being made, reduce retainage to five (5) percent on the current and remaining estimates.

7.02 FINAL PAYMENT

Upon completion and acceptance of the Work, the Owner will issue a certificate attached to the final payment request that the Work has been accepted by him under the conditions of the Contract Documents. The entire balance found to be due the Contractor, including the retained percentages, but except such sums as may be lawfully retained by the Owner, will be paid to the Contractor within thirty (30) days after completion and acceptance of the Work.

The Contractor shall indemnify and save the Owner and the Owner's agents harmless from all claims growing out of the lawful demands of Subcontractors, laborers, workmen, mechanics, material men, and furnishers of machinery and parts thereof, equipment, tools and all supplies, incurred in the furtherance of the performance of the Work.

The Contractor shall at the Owner's request, furnish satisfactory evidence that all obligations of the nature designated above have been paid, discharged, or waived. If the Contractor fails to do so, the Owner will, after having notified the Contractor, either pay unpaid bills or withhold from the Contractor's unpaid compensation a sum of money deemed reasonably sufficient to pay any and all such lawful claims, until satisfactory evidence is furnished that all liabilities have been fully discharged, whereupon payment to the Contractor will be resumed, in accordance with the terms of the Contract Documents, but in no event shall the provisions of this sentence be construed to impose any obligations upon the Owner to either the Contractor, the Contractor's Surety, or any third party.

In paying any unpaid bills of the Contractor, any payment so made by the Owner shall be considered as a payment made under the Contract Documents by the Owner to the Contractor, and the Owner shall not be liable to the Contractor for any such payments made in good faith.

7.03 PAYMENTS WITHHELD

The Owner may withhold or, on account of subsequently discovered evidence, nullify the whole or a part of any certificate to such extent as may be necessary to protect himself from loss on account of:

- (1) Defective work not remedied.
- (2) Claims filed or reasonable evidence indicating probable filing of claims.
- (3) Failure of the Contractor to make payments properly to Sub contractors or for material or labor.
- (4) A reasonable doubt that the Contract can be completed for the balance then unpaid.
- (5) Damage to another Contractor.

When the above grounds are removed payment shall be made for amounts withheld because of them.

7.04 CORRECTION OF WORK BEFORE FINAL PAYMENT

The Contractor shall promptly remove from the premises all materials condemned by the Owner's Field

Representative or the Engineer as failing to conform to the Contract Documents, whether incorporated in the Work or not, and the Contractor shall promptly replace and reconstruct his own work in accordance with the Contract Documents and without expense to the Owner and shall bear the expense of making good all work of other Contractors which may become destroyed or damaged by such removal or replacement.

If the Contractor does not remove such condemned materials within a specified time, fixed by Written Notice, the Owner may remove them and may store the material at the expense of the Contractor. If the Contractor does not pay the expense of such removal within ten (10) days time thereafter, the Owner may, upon ten (10) days written notice, sell such materials at auction or at private sale and shall account for the net proceeds thereof, after deducting all costs and expenses that should have been borne by the Contractor. If the Owner deems any such materials not to be saleable, then the Owner may charge the cost thereof to the Contractor.

7.05 ACCEPTANCE OF FINAL PAYMENT AS RELEASE

The acceptance by the Contractor of final payment shall be and shall operate as a release to the Owner of all claims and all liability to the Contractor, other than claims in stated amounts as may be specifically excepted by the Contractor, for all things performed or furnished in connection with this Work and for every act and neglect of the Owner and others relating to or arising out of this Work.

Any payment, final or otherwise, shall not release the Contractor or the Contractor's Surety from any obligations under the Contract Documents or the Performance Bonds and Payment Bonds.

ARTICLE 8 - CHANGES IN THE WORK

8.01 CHANGE ORDERS

The Owner, without invalidating the Contract, may order extra work or make changes by altering, adding to or deducting from the Work, the Contract Sum being adjusted accordingly and as specified herein. All such work shall be executed under the conditions of the original Contract except that any claim for extension of time caused thereby shall be adjusted at the time of ordering such change. If such alterations diminish the quantity of work to be performed they shall not warrant any claim for damages by the Contractor or for anticipated profits on the work that may be dispensed with.

The value of any such Extra Work or change shall be determined in one or more of the following methods:

- (1) By Lump Sum proposal by the Contractor and acceptance by the Owner.
- (2) By Unit Prices in the Contract or subsequently agreed to by the Owner and Contractor and applied to additional items of work based on field measurements as determined by the Engineer.
- (3) By Cost and Percentage or by Cost and a Fixed Fee, as mutually agreed to by the Owner and Contractor.

If Unit Prices are set forth in the Contract, Method (2) shall be utilized as the means of determining value for Extra Work, unless the Owner elects other wise.

If none of the methods for payment is agreed upon, the Contractor shall proceed with the Extra Work provided that he has received a Change Order. In such case, and also under Method (3), he shall keep and present in such form as the Owner's Field Representative may direct, an accurate daily account of the net cost of labor and materials, together with vouchers. At the end of each Work Day the Contractor's Supervisor shall submit to the Owner's Field Representative the daily force account sheet for approval. This force account sheet shall be signed by the Contractor's Supervisor and shall include a breakdown of the labor force and hours worked, material used and work actually accomplished. In any case, the Owner's Field Representative shall certify to the amount, including reasonable allowance for overhead and profit, due to the Contractor. Pending final determination of value, payments on account of changes will be made based on the Owner's Field Representative's estimate.

Where the amount of such Extra Work is determinable only by actual field measurement, as in the case of rock excavation or removal of unsuitable material, it shall be the Contractor's obligation to furnish cross sections to the Owner's Field Representative for checking quantities. These cross sections shall be prepared by a Licensed Land Surveyor and at the Contractor's expense.

8.02 CLAIMS FOR EXTRA COST

If the Contractor claims that he has been instructed to perform work that is not provided for in the Contract Documents which would involve Extra Cost to him, he shall give the Owner's Field Representative written notice thereof immediately after the receipt of such instructions, and in any event, before proceeding to execute the Work, except in an emergency endangering life or property, and the procedure shall be as provided for in Changes in the Work. No such claim shall be considered for approval unless so made.

8.03 MINOR CHANGES

The Engineer has authority to make minor changes in the Work, not involving extra cost, and not inconsistent with the purpose of the Work. Except in an emergency endangering life or property, no extra work shall be performed or changes made unless authorized by a Change Order, and no claim for an addition to the Contract Sum shall be valid unless so ordered.

ARTICLE 9 - INSURANCE AND BONDS

9.01 CONTRACTOR'S LIABILITY INSURANCE

The Contractor shall purchase and maintain during the term of the Contract, such insurance as will protect the Contractor from claims set forth below which may arise out of or result from the Contractor's execution of the Work, whether such execution be by the Contractor or by any Subcontractor or by anyone for whose acts any of them may be liable, including but not limited to:

- (1) Claims under workmen's compensation, disability benefit and other similar employee benefit acts;
- (2) Claims for damages because of bodily injury, occupational sickness or disease, or death of employees;
- (3) Claims for damages because of bodily injury, sickness or disease, or death of any person other than employees;
- (4) Claims for damages insured by usual personal injury liability coverage which are sustained (1) by any person as a result of an offense directly or indirectly related to the employment of such person by the Contractor, or (2) by any other person; and
- (5) Claims for damages because of injury to or destruction of tangible property, including loss of use resulting therefrom.

9.02 LIMITS OF INSURANCE

- (1) Insurance Requirements:

The contractor shall procure, maintain and provide evidence of minimum insurance coverage described within these bidding documents during the life of this contract, in such form and with such carriers as approved by the Town, at the contractor's expense. In addition, it is the responsibility of the contractor to see that any subcontractors utilized carry similar coverage. Limits specified elsewhere do not limit the obligation of the contractor or their insurers.

Town of Beekman, its agents and affiliates, shall be named as additional insured's on a primary and non-contributory basis on both Premises and Products Completed Operations Liability by policy endorsement. A

per job site aggregate endorsement and a waiver of subrogation endorsement shall also apply.

9.03 FIRE AND EXTENDED COVERAGE

The Contractor shall procure and maintain Fire and Extended Coverage insurance upon the Work to the full insurable value thereof, for the benefit of the Owner, the Contractor, and Subcontractors as their interest may appear. This provision shall in no way release the Contractor or Contractor's Surety from obligations under the Contract Documents to fully complete the Work.

9.04 WORKERS' COMPENSATION

The Contractor shall procure and maintain, at the Contractor's expense, during the term of the Contract, in accordance with the provisions of the laws of the State in which the Work is performed, Workers' Compensation Insurance, including occupational disease provisions, for all of the Contractor's employees at the site of the Work and, in case any Work is sublet, the Contractor shall require such Subcontractor similarly to provide Workers' Compensation Insurance, including occupational disease provisions, for all of the latter's employees unless such employees are covered by the protection afforded by the Contractor.

In case any class of employees engaged in hazardous work under this Contract at the site of the Work is not protected under Workers' Compensation, the Contractor shall provide, and shall cause each Subcontractor to provide, adequate and suitable insurance for the protection of such employees otherwise protected.

9.05 BUILDER'S RISK

The Contractor shall procure and maintain, at Contractor's expense, "All Risk" type Builder's Risk Insurance for Work to be performed. Unless specifically authorized by the Owner, the amount of such insurance shall not be less than the Contract Price in the Bid. The policy shall cover not less than the losses due to fire, explosion, hail, lightning, vandalism, malicious mischief, wind, collapse, riot, aircraft, and smoke during the Contract time, and until the Work is accepted by the Owner. The policy shall name as the insured the Contractor and the Owner.

9.06 BLASTING INSURANCE

Where blasting is involved in the Work, the Contractor shall secure and maintain adequate blasting insurance in amounts satisfactory to the Owner.

9.07 INDEMNIFICATION

The Contractor shall indemnify and hold harmless the Owner and the Engineer and their agents and employees from and against all claims, damages, losses and expenses including attorneys' fees arising out of or resulting from the performance of the Work, provided that any such claims, damages, losses or expenses are attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property, including the loss of use resulting therefrom, and is caused in whole or in part by any negligent or willful act or omission of the Contractor, and Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable.

In any and all claims against the Owner or the Engineer, or any Subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, the indemnification obligation shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the Contractor or any Subcontractor under workmen's compensation acts, disability benefit acts or other employee benefits acts.

The obligation of the Contractor under this paragraph shall not extend to the professional liability of the Engineer, his agents or employees, arising out of the preparation or approval of maps, drawings, opinions, reports, surveys, designs or specifications.

9.08 CERTIFICATES OF INSURANCE

Certificates of Insurance covering all insurance herein acceptable to the Owner shall be filed with the Owner prior to commencement of the Work. These Certificates shall contain a provision that coverages afforded under the policies will not be cancelled unless at least fifteen (15) days prior Written Notice has been given to the Owner.

ARTICLE 10 - SHOP AND RECORD DRAWINGS

10.01 SHOP DRAWINGS

The Contractor shall submit to the Engineer for approval, manufacturers' and vendors' drawings of specially fabricated and assembled items, specially designed mechanical and electrical equipment including descriptive literature and technical data, installation drawings, certifications, test reports, setting drawings, and photographs or catalog cuts of items, as called for in the various Sections of the Specifications.

The Contractor shall examine shop Drawings and other submitted data before forwarding them to the Engineer, and again when they are returned, in order to determine whether the work shown conforms with the Drawings, Specifications and job conditions and he shall so certify that he has done so on an accompanying letter of transmittal. He shall coordinate the work shown thereon with the work of all Subcontractors.

The Contractor shall submit Shop Drawings and other data in accordance with the Schedule (Article 5.03) and in the proper sequence so that each item can be delivered and installed when necessary, taking into consideration the time required for delivery after approval of submitted material, and allowing the Engineer ten (10) calendar days for checking each submission.

All Shop Drawings shall be submitted in quadruplicate. One (1) copy will be retained by the Engineer, one (1) copy will be sent by the Engineer to the Owner and the remaining two (2) copies will be returned to the Contractor.

The Engineer shall review Drawings and other submitted data with respect to design concept and request such changes and corrections thereto as he deems necessary.

The Engineer's review of the Shop Drawings for Design Concept does not relieve the Contractor in any way of his sole responsibility for correctness of all calculations, dimensions and quantities, fitting to other work, and conformance to all specifications. The Engineer's review of the Shop Drawings for Design Concept does not relieve the Contractor in any way of his sole responsibility for correctness of all calculations, dimensions and quantities, fitting to other work, and conformance to all specifications.

If the reviewed Drawings indicate that the Engineer has reviewed dimensions, it shall be understood that this review is based upon his own design drawings, and the dimensions shall be verified by the Contractor with actual field dimensions and conditions.

Drawings and other submitted data that is returned "CONFORMS" need not be resubmitted. If returned "CONFORMS AS NOTED", then the Contractor may proceed with the work thereon as per added notations and corrections. The Drawings and other data shall, however, be corrected and reissued to the Engineer, and to others who are involved in the Work. Drawings and data that are stamped "RESUBMIT" shall be revised as indicated, and then re-submitted. This procedure shall be repeated until the Drawings and data are in conformance as determined by the Engineer.

If the Contractor feels that the Engineer's notations to Shop Drawings and other submitted data will incur hardship or additional costs that the Contractor feels he should not bear, he shall so inform the Engineer in writing, and not proceed with the changes until the problems are settled.

Portions of the Work requiring a Shop Drawing or other submission shall not begin until the Shop Drawing or submission has been reviewed for conformance by the Engineer. A copy of each reviewed Shop Drawing shall be kept in good order by the Contractor at the site and shall be available to the Owner's Field Representative and the Engineer.

10.02 RECORD DRAWINGS

Concurrently with the progress of the Work, the Contractor shall keep on the site a set of "as-built" Record Drawings, consisting of a reproducible marked set of the Engineer's Drawings with the additional sketches as required, denoting and dimensioning accurately and neatly all changes and conditions that are variations from the Engineer's Drawings.

All offsets, bends and changes in alignment and grade of underground utilities which are not marked by a visible surface structure such as manholes, catch basins, etc., shall be recorded. These locations shall be located in reference to three (3) separate permanent surface reference points and recorded on the "as-built" Record Drawings.

An accurate record shall also be kept of all existing site items which are reworked or relocated under the Contract.

The "as-built" drawings shall be available for examination at the site at all times. Upon completion of the Work, the Contractor shall deliver to the Owner and the Engineer a reproducible set of the Record Drawings.

The Contractor's attention is directed to the fact that submission of the reproducible sets of "as-built" Record Drawings is a prerequisite for final payment.

ARTICLE 11 - SUSPENSION OF WORK AND TERMINATION

11.01 SUSPENSION OF WORK

The Owner may at any time suspend the Work, or any part thereof by giving three (3) days' Written Notice to the Contractor. The Work shall be resumed by the Contractor within ten (10) calendar days after the date fixed in a Written Notice from the Owner to the Contractor. A Change Order shall be issued for the expense, if any, incurred by the Contractor as a result of such suspension.

If the Work of any part thereof shall be stopped by the aforesaid Written Notice and if the Owner does not give Written Notice to the Contractor to resume Work at a date within ninety (90) calendar days of the date fixed in the Written Notice to suspend, then the Contractor may abandon that portion of the Work so suspended, and he shall be entitled to payments for all Work performed on the portions so abandoned, if any.

11.02 OWNER'S RIGHT TO TERMINATE

If the Contractor should be adjudged bankrupt, or if he should make a general assignment for the benefit of his creditors, or if a receiver should be appointed on account of his insolvency, or if he should persistently or repeatedly refuse or should fail, except in cases for which extension of time is provided, to supply enough properly skilled workers or proper materials, or if he should fail to make prompt payment to Subcontractors or for material or labor, or persistently disregard laws, ordinances or the instruction of the Owner's Field Representative or Engineer, or otherwise be guilty of a substantial violation of any provisions of the Contract, then the Owner, upon the certificate of the Owner's Field Representative that sufficient cause exists to justify such action, may, without prejudice to any other right or remedy and after giving the Contractor and his Surety ten (10) calendar days Written Notice, terminate the employment of the Contractor and take possession of the premises and of all materials, tools and appliances thereon and finish the Work by whatever method he may deem expedient.

In such case the Contractor shall not be entitled to receive any further payment until the Work is finished. If the

unpaid balance of the Contract Sum shall exceed the expense of finishing the Work, including compensation for additional managerial and administrative services, such excess shall be paid to the Contractor. If such expense shall exceed such unpaid balance, then the Contractor or the Contractor's Surety shall pay the difference to the Owner. The expense incurred by the Owner as herein provided, and the damage incurred through the Contractor's default, shall be certified by the Engineer.

11.03 CONTRACTOR'S RIGHT TO STOP WORK OR TERMINATE CONTRACT

If the Work should be stopped under an order of any court or other public authority for a period of three (3) months, through no act or fault of the Contractor or of anyone employed by him, or if the Owner's Field Representative should fail or refuse wrongfully to issue any Estimate for Payment within twenty (20) calendar days after it is due, or if the Owner should fail or refuse wrongfully to pay the Contractor within sixty (60) calendar days of its maturity and presentation of sum certified by the Owner's Field Representative (or awarded by arbitrators), then the Contractor may, upon fifteen (15) calendar days' Written Notice to the Owner, stop the Work.

If the Contractor shall have stopped the Work in accordance with the provisions of the preceding, and the Work is not recommenced within ninety (90) calendar days thereafter, then the Contract shall automatically terminate on the ninety-first (91st) day following the day of stoppage, unless the Contract is extended in writing by the Owner and Contractor.

If the Contract is terminated as provided in the preceding, then the Contractor shall be entitled to recover from the Owner only

- (1) Payment for all Work executed and loss sustained upon any plant or materials; and
- (2) Reasonable profit for Work performed to date of the stoppage.

11.04 REMOVAL OF EQUIPMENT

In the case of annulment of this Contract before completion by any cause whatever, the Contractor, if notified to do so by the Owner, shall promptly remove any part or all of his equipment and supplies from the property of the Owner, failing which the Owner shall have the right to remove such equipment and supplies at the expense of the Contractor.

11.05 USE OF COMPLETED PORTIONS

The Owner shall have the right to take possession of and use any completed or partially completed portions of the Work, notwithstanding the fact that the time for completing the entire Work or such portions may not have expired but such taking possession and use shall not be deemed an acceptance of any Work not completed in accordance with the Contract Documents.

If such prior use increases the cost of or delays the Work, the Contractor shall be entitled to such extra compensation, or extension of time, or both, as the Engineer may approve.

ARTICLE 12 - ARBITRATION

12.01 DEMAND FOR ARBITRATION

Any decision of the Engineer which is subject to arbitration shall be submitted to arbitration upon the demand of either party to the dispute.

The demand for arbitration shall be delivered by Written Notice to the Engineer and the adverse party within ten (10) calendar days of the receipt of the Engineer's decision, and in no case after final payment has been accepted

except as otherwise expressly stipulated in the Contract Documents.

If the Engineer fails to make a decision within a reasonable time, a demand for arbitration may be made as if the Engineer's decision had been rendered against the demanding party.

The Contractor shall not cause a delay of the Work because of impending arbitration proceedings, except with the written permission of the Engineer, and then only until the Arbitrators shall have an opportunity to determine whether or not the Work should continue until they decide the matters in dispute.

12.02 ARBITRATORS

No one shall be nominated or act as an arbitrator who is in any way financially interested in this Contract or in the business affairs of the Owner or the Contractor or the Engineer, or is otherwise connected with any of them.

Each Arbitrator shall be a person in general familiar with the work or the problem involved in the dispute submitted to arbitration.

Unless otherwise provided by controlling statutes, the parties may agree upon one Arbitrator; otherwise there shall be three, one named in writing by the Owner, one by the Contractor, and the third chosen by those two Arbitrators, or if they should fail to select a third within fifteen (15) calendar days, then the third Arbitrator shall be appointed by the presiding officer, if a disinterested party, of the Bar Association nearest to the location of the Work.

Should the party demanding arbitration fail to name an Arbitrator within ten (10) calendar days of his demand, the party's right to arbitration shall lapse. Should the other party fail to name an Arbitrator within said ten (10) calendar days, then said presiding officer shall appoint such Arbitrator within ten (10) calendar days, and upon the presiding officer's failure to do so, such Arbitrator shall be appointed on the petition of the party demanding arbitration by a Judge of the Federal Court in the District where such arbitration is to be held.

The said presiding officer shall have the power to declare the position of any Arbitrator vacant by refusal or inability to act, sickness, death, resignation, absence or neglect. Any vacancy shall be filled by the said presiding officer. If testimony has been taken before a vacancy has been filled, the matter must be reheard unless a rehearing is waived in the submission or by the written consent of the parties.

12.03 ARBITRATION PROCEDURE

The submission to arbitration (the statement of the matters in dispute between the parties to be passed upon by the Arbitrators) shall be in writing duly acknowledged before a notary.

Unless waived in writing by both parties to the arbitration, the Arbitrators, before hearing testimony, shall be sworn, by an officer authorized by law to administer an oath, faithfully and fairly to hear and examine the matters in controversy and to make a just award according to the best of their understanding.

The Arbitrators shall deliver a Written Notice to each of the parties and to the Engineer of the time and place for the beginning of the hearing of the matters submitted to them.

Each party may submit to the Arbitrators such evidence and argument as each party may desire and the Arbitrators may consider pertinent. The Arbitrators shall, however, be the judges of all matters of law and fact relating to both the subject matters of and the procedure during arbitration and shall not be bound by technical rules of law or procedure. They may hear evidence in whatever form they desire.

The parties may be represented before the Arbitrators by such person as each may select, subject to the disciplinary power of the Arbitrators if such representative shall interfere with the orderly or speedy conduct of the proceedings.

Each party and the Engineer shall supply the Arbitrators with such papers and information as they may demand, or with witness whose movements are subject to their respective control. Upon refusal or neglect to comply with such demands the Arbitrators may render their decision without the evidence which might have been elicited therefrom, and the absence of such evidence shall be no ground for challenge of the award by the party refusing or neglecting to comply with such demand.

The award of the Arbitrators shall not be open to objection on account of the form of the proceedings or the award, unless otherwise provided by the controlling statutes. In the event of such statutes providing on any matter covered by this Article otherwise than as hereinbefore specified, the method of procedure throughout and the legal effect of the award shall be wholly in accord with said statutes, it being the intention hereby to lay down a principle of action to be followed, leaving its local application to be adapted to the legal requirements of the jurisdiction having authority over the arbitration.

If there be one Arbitrator his decision shall be binding; if three, the decision of any two shall be binding in respect to both the matters submitted to and the procedure followed during the arbitration. Such decision shall be a condition precedent to any right of legal action.

12.04 AWARD

The award of the Arbitrators shall be in writing and acknowledged like a deed to be recorded, and a duplicate shall be delivered by Written Notice forthwith upon its rendition, to each of the parties to the controversy and to the Engineer. Judgment may be rendered upon the award by the Federal Court or the highest State Court having jurisdiction to render same.

The Arbitrators, if they deem the case demands it, are authorized to award to the party whose contention is sustained such sums as they shall consider proper for the time, expense and trouble incident to the arbitration, and if the arbitration was demanded without reasonable cause, damages for delay and other losses.

The Arbitrators shall fix their own compensation, unless otherwise provided by agreement, and shall assess the costs and charges of the arbitration upon either or both parties

12.05 ENGINEER

The Engineer shall not be deemed a party to the dispute. The Engineer is given the right to appear before the Arbitrators to explain the basis of the Engineer's decision upon which the request for arbitration is based, and to give such evidence as the Arbitrators may require.

ARTICLE 13 - MISCELLANEOUS

13.01 ASSIGNMENT

The Contractor shall not assign the Contract or sublet it as a whole without the written consent of the Owner, nor shall the Contractor assign any monies due or to become due to him hereunder, without the previous written consent of the Owner.

The Owner reserves the right to assign the Contract to his designee, without the approval of the Contractor.

13.02 SUBCONTRACTORS

The Contractor may utilize the services of specialty Subcontractors on those parts of the Work which, under normal contracting practices, are performed by specialty Subcontractors. The Contractor shall not award Work to Subcontractors, in excess of fifty percent (50%) of the Contract Price, without prior written approval of the Owner.

The Contractor shall, as soon as practicable after the signing of the Contract, notify the Owner and the Engineer in writing of the names of Subcontractors proposed for the Work and shall not employ any that the Owner and the Engineer may, within a reasonable time, object to as incompetent or unfit.

The Contractor shall be as fully responsible to the Owner for the acts and omissions of the Subcontractors and of persons either directly or indirectly employed by the Subcontractors as if the completion is for the acts and omissions of persons directly employed by the Contractor.

The Contractor shall cause appropriate provisions to be inserted in all Subcontracts relative to the Work to bind Subcontractors to the Contractor by the terms of the Contract Documents insofar as applicable to the Work of Subcontractors, and to give the Contractor the same power as regards terminating any Subcontract that the Owner may exercise over the Contractor under any provision of the Contract Documents.

Nothing contained in the Contract Documents shall create any contractual relation between any Subcontractor and the Owner.

13.03 SEPARATE CONTRACTS

The Owner reserves the right to award other contracts in connection with the Project, or perform certain work with his own forces. The Contractor shall afford the Owner and/or other contractors reasonable opportunity for the introduction and storage of their materials and the execution of their work, and shall properly connect and coordinate Contractor's Work with theirs. If the proper execution or results of any part of the Contractor's Work depends upon the work of the Owner and/or any other contractor, the Contractor shall inspect and promptly report to the Owner's Field Representative and Engineer any defects in such Work that render it unsuitable for proper execution and results. The Contractor's failure so to inspect and report shall constitute an acceptance of the Owner's and/or other contractor's work as fit and proper for the reception of his work, except as to defects which may develop in the Owner's and/or other contractor's work after the execution of Contractor's Work.

If the performance of additional work by the Owner and/or other contractors is not noted in the Contract Documents prior to the execution of the Contract, Written Notice thereof shall be given to the Contractor prior to starting any such additional work. If the Contractor believes that the performance of such additional work by the Owner or others involves the Contractor in additional expense or entitles the Contractor to an extension of the Contract Time, the Contractor shall make a claim therefor within ten (10) calendar days of receipt of such Written Notice.

13.04 RIGHTS OF VARIOUS INTERESTS

Wherever work being done by the Owner and/or by other contractors is contiguous to Work covered by this Contract, the respective rights and responsibilities of the various interests involved will be established by the Owner, to secure the completion of the various portions of the Work in general harmony.

13.05 DELAYS AND EXTENSION OF TIME

If the Contractor is delayed at any time during the progress of the Work by any act or neglect of the Owner or of his employees, or by any other contractor employed by the Owner, or by changes ordered in the Work, or by strikes, lockouts, fire, unavoidable casualties, or by delay authorized by the Engineer, then the Time of Completion may be extended for such reasonable time as the Engineer decides.

No claim for delay shall be allowed on account of failure by the Engineer to furnish Drawings to the Contractor until two weeks after demand for such Drawings has been made in writing and not then unless such claim be reasonable.

This Article does not exclude the recovery of damages for delay by either party under other provisions in the

Contract Documents.

13.06 PATENTS AND ROYALTIES

The Contractor shall pay all applicable royalties and license fees.

The Contractor shall defend all suits or claims for infringement of any patent rights and save the Owner and Engineer harmless from loss on account thereof, except that the Owner shall be responsible for any such loss when a particular process, design, or the product of a particular manufacturer or manufacturers is specified. However, if the Contractor has reason to believe that any design, process or product specified is an infringement of a patent, the Contractor shall be responsible for such loss unless the Contractor promptly gives such information to the Owner and Engineer.

13.07 DAMAGES

Any claim for damage arising under this Contract shall be made in writing to the party liable within a reasonable time of the first observance of such damage and not later than the time of final payment, except as expressly stipulated otherwise in the case of faulty work or materials, and shall be adjusted by agreement or arbitration.

13.08 SURVEYS AND CONTROL POINTS

The Owner will furnish all land surveys together with a suitable number of control points and bench marks adjacent to or within the limits of the Work as shown in the Contract Documents. From the information provided by the Owner, unless otherwise specified in the Contract Documents, the Contractor shall develop and make all detail surveys needed for the Work such as establishing slope stakes, batter boards, and other working points, lines, elevations and cut sheets.

The Contractor shall carefully preserve all benchmarks and control points and stakes and, in case of destruction, he shall be charged with the expense of resetting same, and shall be responsible for any mistakes that may be caused by their loss or disturbance.

END OF SECTION

SECTION 00820

SUPPLEMENTAL CONDITIONS

PART 1.00 - INTRODUCTION

- A. The "General Conditions of the Contract for Construction," A.I.A. Document A-201, 1987 edition, of the American Institute of Architects, referred to in the Contract Documents as the General Conditions, together with the following articles of the Additional Supplementary Conditions, are made part of the Contract and shall apply to all work under the Contract.

PART 2.00 - GENERAL PROVISIONS

A. Basic Definitions

The term "Work" shall not be construed to include temporary structures such as scaffolding, lifts, shoring, and bracing. Nor shall the term "Work" be construed to make the Engineer/Architect responsible for means and methods of construction, job site safety, techniques, sequences, procedures, coordination and like items which shall be the responsibility of the Contractor.

B. Execution, Correlation and Intent

1. In all cases, detail drawings shall take precedence over scale drawings and figure dimensions on the drawings shall govern the setting out of work.
2. In the case of an inconsistency between drawings and Specifications, or within either documents, the better quality or greater quantity of Work shall be provided in accordance with the Engineer/Architect's interpretation.
3. Contract Drawings are partly diagrammatic. They are intended to show the Scope of Work, general arrangement of equipment, ducts and piping, and approximate locations and sizes of equipment. Some connections and accessories have been omitted for clarity. This does not relieve the Contractor from providing all connections and accessories necessary to make mechanical work complete and ready to operate, in compliance with applicable Codes and acceptable to the Engineer/Architect. As such, they are not to serve as Shop Drawing.
4. Whenever the terms "approval" or "approved", "acceptable", "satisfactory", "proper" or other general qualifying terms are used in the Contract Documents, it shall be understood that reference is made to the ruling judgment of the Engineer/Architect. The terms "approved" or "approval" mean written approval.
5. The word "provide" includes furnishing, installing and connecting the item cited; the work "furnish" means delivery to the building; the word "install" means proper placement and hooking-up, if hooking is required.
6. Any material or operation specified by reference to published specifications of Society, Association, Code or other published standard shall comply with requirements of the listed document thirty (30) days prior to receipt of bids. In a conflict between referenced document and Project Specifications, Project Specifications shall govern. In a conflict between referenced documents, the more stringent requirements shall govern. Abbreviations of technical organization titles shall be interpreted by the Engineer/Architect.

PART 3.00 - OWNER

A. Information and Services Required of the Owner

1. The Owner will provide site survey with established benchmark.
2. Number of Copies: the Owner will furnish to Contractor three (3) copies and one (1) set of reproducible transparencies of Contract Drawings and three (3) copies of Specifications. Upon subsequent revisions, the Owner will furnish to Contractor three (3) copies and one (1) reproducible of each revised drawing. If Contractor requires more than the number of copies noted above, he may request the additional copies be furnished at his expense.

PART 4.00 - CONTRACTOR

A. Supervision and Construction Procedure

1. Contractor shall coordinate operations of subcontractors and shall see that cooperation is obtained.
2. Contractor shall afford other Contractors and all subcontractors opportunity for introduction and storage of their materials and execution of their work, and shall connect and coordinate his work with theirs, cooperate with the Engineer/Architect and with other Contractors so that work shall be done at proper time, in a manner not to delay others or increase costs.
3. During the progress of the work, Contractor and subcontractors shall build in all material and apparatus furnished and set by other Contractors and subcontractors. Contractor shall familiarize himself with the work of every Contractor and subcontractor whose work affects or ties in with his own, and shall be responsible for the finished result.
4. All work shall be set or laid out on the premises by the Contractor, who will be held responsible for its correctness. The Contractor shall establish all grade lines and temporary benchmarks. If there is a discrepancy between actual lines and levels and drawings, he shall notify the Engineer/Architect in writing, describing such discrepancy, and shall not proceed with any work affected thereby until written instruction are received from the Engineer/Architect.

B. Labor and Materials

1. After the Contract has been executed, the Owner and the Engineer/Architect will consider a formal request for the substitution of products in place of those specified only under the conditions set forth in the Contract Documents.
2. By making requests for substitutions, the Contractor:
 - a. represents that the Contractor has personally investigated the proposed substitute product and has determined that it is equal or superior in all respects to the product specified;
 - b. represents that the Contractor will provide the same warranty for the substitute product that the Contractor would provide for the product specified;
 - c. certifies that any cost data presented is complete and includes all related costs under this Contract except the Engineer/Architect's redesign costs, and waives all

claims for additional costs related to the substitution which subsequently become apparent; and

- d. will coordinate the installation of the (accepted) substitute, making such changes as may be required for the Work to be complete in all respects.

C. Permits, Fees and Notices

1. The Contractor shall obtain final Certificate of Occupancy and a Temporary Certificate of Occupancy if required, or shall obtain Letter of Completion (whichever is required), and shall pay all fees necessary to secure them.
2. If required by the Building Code and/or authorities having jurisdiction, after completion of the project, or sooner as may be required, the General Contractor shall provide a property survey showing location of building and all other required data.
3. Federal Occupational Safety and Health Act: Contractor who perform any work under this Contract shall fully comply with the provisions of the Federal Occupational Safety and Health Act of 1970, and all amendments, and to any rules and regulations pursuant to the Act.
4. Equal Employment Opportunity: The equal opportunity clause required by Executive Order 11246, as amended by Executive Order 11375, is incorporated by reference in this Contract and the Contractor certifies by execution of this Contract, that:
 - a. No segregated facilities are maintained contrary to the regulation under the Executive Orders;
 - b. He has developed and followed appropriate Affirmative Action Programs under such regulations, and;
 - c. He will incorporate by reference or otherwise in subcontracts, the Equal Opportunity Clause and obtain assurance from his subcontractors as to facilities and affirmative action programs.

- D. Superintendent: The Contractor's superintendent shall be present at the job site at all times that work is being performed, including work performed during overtime. Contractor's superintendent shall perform only supervisory work, and shall not be an active tradesman, or be assigned to any manual work on the premises.

E. Contractor's Construction Schedules

1. Progress Schedule: At start of project, the Contractor shall submit for Engineer/Architect's and Owner's approval, a detailed construction schedule for completion of project within the Contract time. The schedule shall indicate dates for commencement and completion of the various parts of the work. During the course of the project, the schedule shall be kept current to indicate progress of the work, and be submitted once a month for Engineer/Architect's and Owner's information. The Contractor shall schedule each building's proposed date for Certificate of Occupancy and coordinate all aspects of Plans and Specifications thereto.

F. Documents and Samples at the Site

1. Upon completion of the work, the Contractor shall furnish the Engineer/Architect with Record Drawings marked to record all changes made during construction. The Record Drawings shall consist of a set of reproducible copies of the Engineer/Architect's drawings, on which all changes have been carefully drawn. The Contractor shall obtain the reproducibles especially for the purpose, and pay all costs for obtaining them. The Contractor shall identify all changed areas by circling them. The reproducibles shall be made by "Ozalid", "Autopositive" or other process acceptable to the Engineer/Architect. The Contractor shall indicate on the job set of Engineer/Architects' drawings, at the time it occurs, each field change, for later transfer to the Record Drawings.

G. Use of Site

1. The portion of the Owner's property that may be used by Contractor shall be agreed upon with the Owner and clearly designated. Such portion may be changed from time to time during the course of the work. Trespass and encroachment on reserved space shall not be made.
2. Signs or advertisements will not be allowed on the building enclosure or premises unless written approval has been obtained from the Engineer/Architect.
 - a. The Engineer/Architect reserves the right to grant or to deny permission for the erection of signs of any kind on or about the premises. The Contractor shall not display, or permit to be displayed, any sign, trademark, poster, or other advertising device, on or about premises except as may be required for proper conduct of the work, as a directory of Contractors engaged in the work, for emergency, or as may be specified.

H. Cutting and Patching

1. All such work shall be performed by qualified tradesmen.
2. The Contractor shall be held responsible for the contents and structural condition of the building, and shall do or supervise all cutting, drilling, reinforcing and patching required for work of all subcontractors and trades included in work of this Contract, in a time and manner to avoid any hindrance to work of other trades.
3. No cutting shall be done by anyone other than the Contractor, unless such work is approved by the Owner. In such cases, the Contractor shall supervise such cutting and shall not be relieved of responsibility for error or damage to related or adjoining work.
4. In the event that sleeves, inserts and any embedded items are not placed in time, the Contractor shall form openings in the work as directed by the Owner, and the Contractor shall be held responsible for consequent and related patching.

I. Cleaning Up

1. Rubbish shall be removed as often as necessary to maintain the site and buildings in an orderly manner to satisfaction of Engineer/Architect and Owner.
2. Store and dispose of all rubbish and waste materials in accordance with all rules, laws and ordinances of authorities having jurisdiction.

3. Upon completion of the work, remove point putty, mortar or other material from all finished surfaces, and clean and wash them. Clean and wash window glass on both sides, free from streaks.

PART 5.00 - CHANGES IN THE WORK

- A. Changes: Itemize each claim for adjustment to Contract Price brought about by changes to work as to the labor, materials and services involved. Contractor's itemized estimate sheets showing charges or credits for additions to, or deductions from work as shown on Drawings and described in Specifications shall at all times be open to inspection by the Engineer/Architect and the Owner.

PART 6.00 - TIME

- A. Definitions: The term "day" shall mean a calendar day of twenty-four (24) hours beginning at 12:00 Midnight. The term "working day" shall mean any calendar day except Saturdays, Sundays and legal holidays at the place of the Project. A time limit ending on a weekend or holiday shall be automatically extended to the succeeding working day.

PART 7.00 - PAYMENTS AND COMPLETION

- A. Applications for Payment: Contractor or his subcontractor shall not permit any lien attachment, encumbrance, claims, or demands to remain on file with Owner against monies due or to become due for work completed. Such lien attachment, encumbrance, claim or demand shall preclude any payments under the terms of the Contract until it is removed.
- B. Progress Payments: Furnishing of information to the Subcontractor shall not be construed as acknowledging or creating any contractual duty between the Engineer/Architect and the Contractor and any Subcontractor or supplier of the Contractor.
- C. Substantial Completion: If the Engineer/Architect, during his final inspection, does not find the work acceptable, he shall prepare for submission to the Contractor a Punch List of items to be completed or corrected. The subsequent inspection or inspections to determine if the work is acceptable, shall be jointly made by the Engineer/Architect and the Contractor.

PART 8.00 - PROTECTION OF PERSONS AND PROPERTY

- A. Safety Precautions and Programs
 1. Comply with applicable recommended safety practices set forth in "Manual of Accident Prevention in Construction" as published by the Associated General Contractors of America, Inc. A copy of the Manual shall be available on the project premises at all times.
 2. The Engineer/Architect will render no determination on the presence or absence of hazardous materials; or whether or not the work shall be stopped or proceed because of such suspected materials.
 3. Comply with established safety rules of the Owner and all other authorities having jurisdiction.
- B. Safety of Persons and Property
 1. The Contractor shall be responsible for safe storage and protection against theft or damage of materials until they have been properly incorporated in the project and of all tools and

equipment owned by himself or his subcontractors during the construction period and until removed from the premises at the completion of the project.

2. The Contractor shall repair any damage or injury to adjoining property caused by his work and leave property in as good condition as before work was started, relieve Owner of responsibility of claims due to such injury and defend any action of law brought by reason thereof.
3. Existing publicly-owned facilities, streets, curbs, walks, and other structures damaged or removed due to required construction work, shall be repaired and replaced, and left in their original state of repair by Contractor, to satisfaction of Engineer/Architect and/or Authorities having jurisdiction. In event local jurisdictional Authorities require such repairing be accomplished with their own labor and materials, Contractor shall abide by such regulations. Cost for such work shall be included in the Proposal or Bid. During work, maintain exterior paved surfaces in broom-clean condition, and free from ice and snow.
4. Contractor shall repair any damage or injury to adjoining property caused by his work and leave property in as good condition as before work was started, subject to Engineer/Architect's approval.
5. Completed roofs, used for working space or subject to damage from construction at a higher level, shall be properly protected from damage and shall be thoroughly cleaned on completion of the work.
6. Contractor shall protect at all times all lines of drainage, sewer, water, gas and electric from damage by building operations wherever and whenever required; shall maintain lines in condition for use at all times; and shall provide permanent supports for lines, in accordance with requirements of Owner, Public Authorities and Service Corporation, and as directed by the Engineer/Architect.

PART 9.00 - UNCOVERING AND CORRECTION OF WORK

- A. Commencement of Statutory Limitation Period; Between Substantial Completion and Final Certificate for Payment: Submit the following warranties on forms bound herein:
 1. One (1) year warranty for the entire project.
 2. One (1) year warranty and/or required warranties of more than one (1) year duration by the subcontractors.

PART 10.00 - TEMPORARY FACILITIES

- A. Temporary Enclosures: The Contractor shall provide all temporary enclosures that may be necessary to protect the interior of the buildings from the weather elements or from trespassing and vandalism. The enclosures shall include temporary doors, boarding, etc., complete with items of hardware, such as hinges and properly sized locks and padlocks.
- B. Temporary Power and Light: The Electrical Contractor shall provide and pay for all required and necessary temporary electric equipment, wiring, lights, etc. The General Contractor shall assume the responsibility of paying for all energy required for temporary power and light during the work of all trades until the Owner's acceptance of the entire project.

- C. Temporary Water: The Plumbing Contractor shall provide all necessary and required temporary piping, equipment, etc., for obtaining water for all trades during the progress of the work. The General Contractor shall arrange and pay for all water required for the work of the various trades until the Owner's acceptance of the entire project.
- D. Temporary Toilets: The Contractor shall provide and maintain in good order one (1) temporary sanitary toilet located near the field office. The toilet shall be completely enclosed, weatherproof and shall be kept in proper sanitary condition at all times until completion when it shall be removed.
- E. Temporary Field Office: Contractor shall provide and properly maintain adequate temporary weathertight office or offices for his own use and the use of the Engineer/Architect and the Owner. This office shall be heated in cold weather, shall be provided with artificial light, desk, metal filing cabinet, plan rack, toilet facilities, etc. The Contractor shall supply and pay for all utilities and janitor services and supplies.
- F. Temporary Telephone: The Contractor shall provide and pay for telephone service for his own use, making local service available to the Engineer/Architect; long distance calls to be paid by the party making such calls.
- G. Watchman
1. The Contractor shall employ competent watchman or uniformed guard service as required to prevent illegal entry or damage during night time, holidays or other periods of time when work is not in progress.
 2. The above service shall not be construed as guaranteeing other Contractors against loss or damage. If other Contractors deem additional protection necessary for their interests, they shall provide same.
 3. Employment of the above service shall not be construed as a guarantee by the Owner or the Engineer/Architect against theft or damage or the relief of liability on the part of the General Contractor.
- H. Temporary Heat: When temporary heat is required for the drying out of materials, finishes, or for the comfort of mechanics, the General Contractor shall provide and pay for such heat, obtaining same either from the permanent heating system or by the use of salamanders. The Contractor shall make his own arrangements with the Heating Contractor for proper installation, conduction of heat, and maintenance of the permanent system. If the permanent heating system is used, the cost of fuel, insurance required, etc., for heating prior to the issuance of Certificate of Occupancy shall be borne by the General Contractor. If salamanders are used, they shall be of approved type only and be properly equipped.
- I. Fire Protection
1. The General Contractor shall observe and enforce throughout the entire period of construction all requirements of the Fire Department and the Insurance companies to minimize the fire hazard. The Contractor shall post signs and warnings as required to maintain and enforce all regulations imposed to secure such protection and all contractors shall comply with such regulations.
 2. Combustible refuse shall be removed from the buildings daily.
 3. No oils, gasoline or other volatile liquids shall be kept inside the building.

4. No open fires shall be allowed within the buildings.
5. All other similar necessary precautions shall be taken to reduce the fire hazard.

END OF SECTION

SECTION 01110

SUMMARY OF WORK

PART 1.00 - GENERAL

1.01 GENERAL REQUIREMENTS

- A. The Work to be performed under this Contract shall consist of providing all labor, materials and equipment that is necessary and required to complete the Work in accordance with the Contract Documents.

1.02 WORK INCLUDED

- A. The Work to be performed under this Contract shall include, but not be limited to:
 - 1. Secure construction area and establish temporary parking and circulation patterns (as needed).
 - 2. Implement Water System Improvements in accordance with the plans and specifications. Work includes installation of an atmospheric water storage tank, booster pumps, and necessary piping, wiring, and electronic controls necessary as detailed on the plans and specifications. Please note that selected Contractor must supply wiring diagram to Town of Beekman for approval before any electrical work is completed.

1.03 RELATED WORK (NOT USED)

1.04 QUALITY ASSURANCE

- A. The Contractor shall perform all his operations in accordance with the rules, regulations, and ordinances of those governing bodies having jurisdiction.

1.05 SUBMITTALS

- A. The Contractor shall submit a schedule of his proposed methods and operations of Site Preparation for review and approval prior to start of Work.
- B. The Contractor shall submit shop drawings, product cut sheets, and operation and maintenance manuals for review and approval prior to start of Work.

1.06 DELIVERY STORAGE & HANDLING (NOT USED)

1.07 JOB CONDITIONS (NOT USED)

1.08 WARRANTY

- A. See 00820, Part 9.00 for warranty information.

PART 2.00 - PRODUCTS (NOT USED)

PART 3.00 - EXECUTION

3.01 COOPERATION AND COORDINATION OF WORK

- A. The Contractor's attention is directed to other construction, including the construction of building(s), the installation and/or relocation of utilities, etc., which will be carried on simultaneously with the Work under this Contract, and that because of such other work, he may not have exclusive occupancy of the territory within or adjacent to the limits of the Contract. The Contractor shall cooperate with other contractors and the owners of the various utilities, and shall coordinate and arrange the sequence of his Work to conform with the progressive operations of the work under other contracts.
- B. Cooperation and adjustments with such other contractors is essential to properly coordinate the construction efforts of all contractors, utility owners and subcontractors engaged in the work within and/or adjacent to the construction area of this Contract. In case of interference between the operations of different contractors, utility owners and subcontractors, the Owner's Field Representative will be the sole judge of the rights of each and the sequence of work necessary to expedite the completion of the project, and in all cases his decision shall be accepted as final.
- C. Prior to Bidding, the Contractor shall make himself aware of the nature and extent of the work to be performed by these other contractors, sub contractors and utility owners, and specifically how such will affect the Work that he will be performing under this Contract.

3.02 SCHEDULE OF OPERATIONS

- A. Prior to the start of construction the Contractor shall submit a detailed Schedule of Construction Operations and completion dates for each phase of his operations to the Owner's Field Representative. No Work shall be started until the Schedule has been approved by the Owner's Field Representative.

3.03 SPECIAL REQUIREMENTS (NOT USED)

END OF SECTION

SECTION 02200

SITE PREPARATION

PART 1.00 - GENERAL

1.01 GENERAL REQUIREMENTS

- A. Work of this Section, as shown or specified, shall be in accordance with the requirements of the Contract Documents.

1.02 WORK INCLUDED

- A. Work of this Section includes all labor, materials, equipment and services necessary to complete the Site Preparation as shown on the drawings and specified herein, including, but not limited to, the following:
 - 1. Stake-out of site layout and grading.
 - 2. Protection of existing structures and utilities to remain.

1.03 RELATED WORK

- A. Section 02300 Earthwork

1.04 QUALITY ASSURANCE

- A. The Contractor shall perform all his operations in accordance with the rules, regulations and ordinances of those governing bodies having jurisdiction.

1.05 SUBMITTALS

- A. The Contractor shall submit a schedule of his proposed methods and operations of Site Preparation for review and approval prior to start of Work.

1.06 DELIVERY, STORAGE & HANDLING (NOT USED)

1.07 JOB CONDITIONS

- A. Locations shown on Drawings not Guaranteed.
 - 1. The structures, obstructions, utilities, trees and shrubs shown on the Drawings are those known to exist, but their location is not guaranteed to be exact, nor is it guaranteed that all structures, obstructions, utilities, trees and shrubs are shown. The Contractor shall, however, be responsible for the protection of all structures, obstructions, utilities, trees and shrubs, whether shown on the Drawings or not.
 - 2. Should any discrepancy be found between points, lines or grades shown on Drawings and actual field conditions, the Contractor shall immediately inform the Owner's Field Representative of such discrepancy and shall not proceed with the work affected thereby until necessary instructions are received from the Owner's Field Representative.
- B. Safeguards and Protection

1. The Contractor shall provide all necessary safeguards including the installation of shoring, structural supports, protective fencing and barriers, etc., as may be required to prevent damage to adjacent property or injury to persons. All Work shall be performed in accordance with the requirements of the local building codes and the rules, regulations and ordinances of all other governing bodies having jurisdiction. The Contractor will be held responsible for any claim arising from his failure to provide proper safeguards or for his failure to conduct his operation in a manner consistent with the rules, regulations and ordinances of these governing bodies having jurisdiction.
- C. Replacement of Disturbed Ground Surfaces
1. The Contractor shall at his own expense, repair or replace all ground surfaces, pavements, sidewalks, curbs, etc., which are to remain and which may become disturbed or damaged due to his operations. Said repair or replacement shall be satisfactory to the Owner's Field Representative and in accordance with the requirements of the governing body having jurisdiction.
- D. Damage
1. The Contractor, at his own expense, shall make good, repair and/or replace all damage occurring as a direct or indirect result of his operations.
- E. Notification of Utility Owners
1. The Contractor shall notify all utility owners at least seventy-two (72) hours prior to the start of any operation that will affect utilities, whether to remain or to be discontinued, removed, relocated and/or reconstructed and at all other times as may be specified by law. The Contractor will be held responsible for any claims arising from his failure to make such notification, or for his failure to do the work in accordance with the rules and regulations of the governing authorities.
- F. Cleaning
1. Upon completion of site preparation and prior to commencing site construction, clean areas within contract limits, remove tools and equipment. Provide site clear, clean, and free of materials and debris, and suitable for earthwork operations.

PART 2.00 - PRODUCTS

2.01 MATERIALS DEFINITIONS

- A. Construction signs, lights, flares, barricades and protective devices shall conform to the "U.S. Department of Transportation, Federal, Manual of Uniform Traffic Control Devices".

PART 3.00 - EXECUTION

3.01 INSPECTION

- A. Examine the areas and conditions where Site Preparation is to be performed and notify the Owner's Field Representative of conditions detrimental to the proper and timely completion of the Work. Do not proceed with the Work until satisfactory conditions have been corrected by the Contractor in a manner acceptable to the Owner's Field Representative.

3.02 INSTALLATION

A. Site Layout:

1. General Requirements

- (a) Locate, protect, and maintain active utilities and site improvements to remain.

B. Removal of Structures, Utilities and Obstructions

1. General Requirements

- (a) The Contractor shall remove only those items and structures that he has been authorized to remove, either by specific directions given on the Drawings or by written instructions given before or during the progress of the Work by the Site Engineer or the Owner's Field Representative.
- (b) The Contractor will be held responsible for any claim arising from his removal of any existing item or structure without the required authorization specified herein.

2. Existing Services to be maintained

- (a) All existing utilities shall be maintained during such construction operations.

3. Disposal of Material

- (a) All waste material including, but not limited to, concrete, wood, paper, asphalt, metal and miscellaneous debris, shall be disposed of offsite in an approved disposal area.

C. Protection of Existing Structures and Utilities

1. General Requirements

- (a) The Contractor shall be responsible throughout the course of the Work for protection from injury or damage of all existing structures and utilities which are to remain.
- (b) All existing telephone and electric poles, wires, conduits, drains, culverts, fire hydrants and other utilities which are to remain shall be carefully supported, maintained in operation and protected from injury or damage by the Contractor.
- (c) The Contractor shall sling, support, shore up and secure in place all pipe or conduits, without damage thereto. The Contractor shall provide for and maintain, by means of suitable temporary channels or pipe, the flow of drainage and watercourses, whether on the surface or underground, which may be interrupted during the progress of the Work. All Works of drainage intercepted or disconnected, shall be restored and/or rebuilt to the extent made necessary by the new Work, and all temporary material required for such construction shall immediately be removed therefrom when no longer required.

D. Protection of Existing Landscaping and Natural Features

1. General Requirements

- (a) The Contractor shall protect, throughout the course of construction, all such trees as are shown on the Drawings or marked by the Owner's Field Representative as to be Protected, from damage and harmful occurrences including:
- (1) Compaction of root area by moving trucks or heavy equipment.
 - (2) Storage of heavy equipment, supplies, gravel, and earth fill within the dripline of trees and shrubs.
 - (3) Trunk damage by leaning supplies and equipment against trees.
 - (4) Nailing, screwing, or bolting objects to trees other than protective barriers.
 - (5) Strangulation by attaching ropes, guy wires, or power lines to trunks or branches.
 - (6) Poisoning by spilling or discarding noxious paint, cement, solvents, oil, and gasoline around trees and roots; or by runoff of such material from other areas.
 - (7) Avoidable cutting of roots in the process of excavation for trenching.
 - (8) Damage by moving vehicles and equipment.
 - (9) Improper pruning for construction operations.
 - (10) Damage to root system by flooding and ponding caused by grade changes.
 - (11) Damage to root system from mud or silt buildup from construction area drainage.
- (b) The Contractor shall also protect throughout the course of construction all landscaping, vegetation and natural features on public and private property. The Contractor shall use every precaution to prevent injury, damage, pollution, erosion or destruction of existing landscaping, vegetation and natural features.

2. Protective Fencing

- (a) The Contractor shall protect trees, shrubs and areas to be left undisturbed with armoring and fencing. Place the protective barriers before any excavation or grading is begun and maintain in repair throughout the construction period.
- (b) Fencing shall be located at the dripline of trees to be protected unless otherwise approved by Owner's Field Representative. If it is necessary to reduce the distance between fencing and tree trunk as determined by Owner's Field Representative, the minimum distance between fence and tree trunk shall be determined by the caliper of the tree to be protected. For each inch of tree caliper, the fence shall be 12" distant with a minimum of 18".
- (1) Armoring - Wrap individual trees near heavy construction traffic with burlap and 2" x 4" planks of sound durable wood wired vertically as

armor around trunks, spaced no more than 2" apart, to a height of 10' above ground.

(2) Barrier Fencing - Protect groups of trees and shrubs near construction traffic by fencing which shall have posts equivalent to 4" x 4" set 3' in the ground and extending 5' above the ground, set at intervals not to exceed 8'. Provide two rails equivalent to 1" x 6" and verticals 1" x 5" attached no more than 6" apart.

(3) Snow Fencing - Protect other individual trees and shrubs liable to damage with standard 48" high snow fencing attached to 6' long standard steel drive posts set no more than 6' on center.

(c) Protect areas to be left undisturbed and liable to damage with perimeter snow fencing as described above.

3. Root Protection

(a) The Contractor shall protect existing root systems by maintaining existing grades, within the canopy spread of trees and shrubs to remain, except for grading work approved by the Owner's Field Representative.

(b) Inspect trees and shrubs to remain immediately after rains and during periods of runoff for ponding and silting. Drain area and remove mud and silt to existing grade immediately.

4. Tree Wells

(a) Where designated by the Drawings or Owner's Field Representative, the Contractor shall protect trees which will require future walls or wells due to grade changes by holding the existing grade under the dripline of the trees' branches. The trees will also be protected with fencing as directed by the Owner's Field Representative.

E. Maintenance and Protection of Traffic

1. General Requirements

(a) The Contractor shall maintain traffic as required during the course of construction in such a manner satisfactory to the Owner's Field Representative and authorities having jurisdiction. The Contractor shall comply with all rules and regulations of those governing bodies having jurisdiction on the adjacent roadways, and shall obtain required permits and pay all fees, deposits and charges in connection with same.

2. Conduct of Work

(a) The Contractor shall furnish, install and maintain construction signs, lights, flares, fences, barricades, steel plates, and/or all other protective devices necessary and required to adequately maintain both vehicular and pedestrian traffic during construction. He shall provide all personnel necessary for directing and controlling traffic. Traffic entering and exiting the site shall be regulated and maintained so as not to disrupt the normal flow of highway traffic. Emergency personnel and equipment shall have safe and adequate access to the site at all times.

F. Construction Maintenance of Access Road and Staging Area

1. General Requirements

- (a) The Contractor shall maintain a suitable Staging Area. In addition, an area shall be provided for employee parking. The Staging Area shall be where directed by the Owner's Field Representative for vehicles of all contractors.
- (b) The Contractor shall be responsible for the installation and maintenance of temporary facilities such as steel plates, ramps, etc., to insure safe, adequate and uninterrupted means of traffic flow about the Staging Area as required. The Contractor shall maintain all roads, streets and Access Areas in a manner satisfactory to the Agency having jurisdiction over those roads and streets and/or the Owner's Field Representative. This may include, but not be limited to manual sweeping, power sweeping and/or high pressure washing.

END OF SECTION

SECTION 02220

SELECTIVE DEMOLITION

PART 1.00 - GENERAL

1.01 GENERAL REQUIREMENTS

- A. Work of this Section, as shown or specified, shall be in accordance with the requirements of the Contract Documents.

1.02 WORK INCLUDED

- A. Work required under this Section includes the demolition of, removal of and lawful disposal of all demolition items. Demolition work shall include all items, whether indicated on the Drawings or not, whose demolition is required to properly complete the work required by this Contract.
- B. All discontinued electrical wiring and piping systems shall be removed unless otherwise noted.
- C. Water service connections shall be removed and capped at the main unless otherwise approved in writing.
- D. The Contractor shall be responsible to have carefully investigated and verified existing conditions at the site in an effort to determine the extent of demolition work, conditions under which it must be performed, and all conditions relative to his work, prior to beginning work.
- E. Contractor shall patch and repair all materials disturbed or left exposed by his work with materials to match adjacent finishes and in a manner consistent with the existing construction, or in a manner to facilitate the new construction.
- F. Items of salvageable value to Contractor may be removed from the structure as work progresses. Salvaged items must be removed from the site as they are removed.
- G. Air compressor to be removed and provided to the Owner.

1.03 RELATED WORK

- A. Section 02200 Site Preparation
- B. Section 02370 Erosion and Sedimentation Control

1.04 RIGHT OF OWNERSHIP

- A. All materials removed under demolition work shall become the property of the Contractor, unless otherwise noted, and shall be removed from the site as soon as possible.

- 1.05 FIRE HAZARD: The Contractor shall not allow trash or debris to accumulate inside or about the building. No trash may be burned on the site. Fire safety precautions must be observed at all times

when working inside or about the existing building. Portable fire extinguishers must be present at points of hazardous work. All Federal, state and/or local codes or requirements pertaining to demolition and trash disposal must be observed.

- 1.06 CARE AND PROTECTION: The Contractor shall be responsible for special care in removing materials and equipment to avoid damage to the remaining structure and to equipment and materials that are to be relocated or reused. He shall provide necessary weather and security protection for any temporary openings in the building created by demolition work.
- 1.07 RELOCATED EQUIPMENT: Relocated equipment shall be installed and restored as required to operate equally to its pre- removal condition. The Contractor shall itemize all substantial equipment defects prior to its regulation and shall notify the Owner. Equipment damage claimed by the Owner as a result of the relocation not previously itemized shall be repaired by the Contractor at no additional cost.

PART 2.00 - PRODUCTS

Not applicable.

PART 3.00 - EXECUTION

3.01 FILLING VOIDS

- A. Completely fill below grade areas and voids resulting from demolition or removal of structures (underground tanks, wells, etc.) using approved select fill materials.
- B. Ensure that areas to be filled are free of standing water, frost, frozen material, trash, organic matter and debris prior to fill placement.
- C. Place fill materials and horizontal layers not exceeding eight inches (8") and loose depth and compact each layer at optimum moisture content of fill.
- D. Grade surface to match adjacent grades and to guide the flow of surface runoff to drainage structures after fill placement and compaction.

3.02 DISPOSAL OF DEMOLISHED MATERIALS

- A. All waste, rubble and other debris created by demolition work shall be disposed of at an approved rubbish disposal area away from the Owner's property. All disposal fees shall be paid by the Contractor.
- B. No burning of any materials, debris, or trash will be permitted on-site without an appropriately obtained burn permit. Burning material shall be attended until fires have burned out or have been extinguished.
- C. Materials shall be entirely removed and disposed of off site. Such material shall not be deposited in rivers, streams or other bodies of water. If the material is to be wasted then it shall be disposed of at an approved dump or other approved location. Transport materials removed from the demolished structures and dispose of off-site to areas which are approved for disposal by the Owner.

END OF SECTION

SECTION 02300

EARTHWORK

PART 1.00 - GENERAL

1.01 GENERAL REQUIREMENTS

- A. Work of this Section, as shown or specified, shall be in accordance with the requirements of the Contract Documents.

1.02 WORK INCLUDED

- A. Work of this Section includes all labor, materials, equipment and services necessary to complete the excavation, placement, compaction and/or disposal of all material necessary and required to complete the Earthwork as shown on the drawings and specified herein, including, but not limited to, the following:
 - 1. Removal of existing topsoil material, stockpiling and spreading stockpiled topsoil, and disposal or use in fills of excess topsoil material.
 - 2. Dust control.
 - 3. Excavation and/or filling, compaction and grading to subgrade surface elevations for proposed structures.
 - 4. Excavation, including disposal of unsuitable and/or surplus material.
 - 5. Formation of fill sections, including embankments and subgrade, using suitable onsite excavated material and/or offsite borrow material as required.
 - 6. Compaction of fill sections and embankments.
 - 7. Grading and regrading, including proof rolling of subgrade surfaces.
 - 8. Dewatering of excavation.

1.03 RELATED WORK

- A. Section 02200 Site Preparation
- B. Section 02315 Trenching and Backfill
- C. Section 02370 Erosion and Sediment Control

1.04 QUALITY ASSURANCE

- A. The Contractor shall perform all his operations in accordance with the rules, regulations and ordinances of those governing bodies having jurisdiction.
- B. All earthwork operations shall be carried out under the direct control of the Owner's Field Representative. The Contractor shall abide by the recommendations of the Owner's Field Representative in the full conduct of the Work and in the correction of conditions which are

unsatisfactory and not in accordance with the Drawings and Specifications. Work will not be accepted by the Owner until certified by the Engineer to be in compliance with the Drawings and Specifications.

- C. The Contractor is advised that before any imported soil material is brought onsite, it must have been analyzed and tested and passed inspection for contamination in addition to other provisions for acceptance of Borrow Material contained in these Specifications.
- E. All subgrade surfaces shall be proof-rolled by means of heavy rollers to locate and permit timely correction of subgrade deficiencies which will adversely affect the performance of the pavement structure.

1.05 SUBMITTALS

- A. The Contractor shall prepare and submit to the Owner's Field Representative for approval his construction schedule for stripping, excavation, embankment and fill operations. This must include the sequence of the Work, and his schedule must provide for the construction of permanent erosion control work at the earliest possible time.

1.06 DELIVERY, STORAGE AND HANDLING (NOT USED)

1.07 JOB CONDITIONS

A. Topographical Information

- 1. Topographic information as shown on the Drawings was taken from a completed topographical survey made by a licensed land surveyor. It shall be the obligation of the Bidder to satisfy himself by personal examination of the site that the existing topography shown is accurate. No claim for extra compensation for inaccuracies of existing topography will be allowed after Bids are submitted.

B. Subsurface Information

- 1. Subsurface investigations have not been performed at the site.
- 2. Permission may be granted to the Bidder upon request, to drill borings or dig test pits for the purpose of verifying conditions at the site. The locations and size of such exploratory holes will be subject to approval by the Owner and the cost of such explorations shall be borne by the Bidder.
- 3. Bidders shall examine the site as well as all available information and then decide for themselves the character of materials to be encountered. Subsurface conditions may include different soils, hard or soft strata, obstructions that may be either natural or manmade, or other conditions. The Bid should include the influence of such features, and it shall be deemed to include all consideration for the risks involved.
- 4. Groundwater may rise during wet weather or fall during dry weather. The Bidder is hereby advised that varying groundwater levels are to be expected and that this may affect any construction operations involving earthwork.

C. Site Conditions not Guaranteed

- 1. Neither the Owner's Field Representative, Site Engineer nor the Owner guarantees that materials will actually be encountered.

2. Submission of a Proposal binds the party thereto to accept the actual site conditions and to provide a completed condition at no additional cost to the Owner, except as specifically provided herein.

D. Coordination of Operations

1. The Contractor is advised that during the course of Work under this Section, work may be progressing on all other phases of the Project, including work on separate contracts with the Owner for building construction, utilities, etc. It shall be the responsibility of the Contractor to coordinate all his operations and those of any of his Subcontractors with the operations of these other contractors, through the Owner's Field Representative.

PART 2.00 - PRODUCTS

2.01 EXCAVATION CLASSIFICATION

- A. All material excavated shall be classified as "Unclassified Excavation", and this material shall be further classified as "Suitable Material" or "Unsuitable Material" as follows:
 1. Unclassified Excavation shall be defined as removal of all material of any nature whatsoever, including topsoil, rock and earth.
 2. Suitable Material shall be defined as material whose composition is satisfactory for use in formation of fill section, subgrade, embankment, etc. construction. In general, any mineral (inorganic) soil, blasted or broken rock, free of organic and deleterious materials, and particles with a diameter not greater than four (4) inches, shall be considered Suitable Material.
 3. Unsuitable Material shall be defined as any material containing vegetation or organic matter, such as muck, peat, organic silt, topsoil sod, deleterious material, and particles greater than four (4) inches in diameter, which is not satisfactory for use in embankment construction or for support of permanent structures. Certain man-made deposits such as landfill material may also be determined to be Unsuitable Material.
- B. Should the Contractor encounter unusual material he shall immediately notify the Owner's Field Representative and/or Engineer, who will examine the material, classify it and advise the Contractor as to the method of handling. Unauthorized removal of material before it has been classified by the Owner's Field Representative and/or Engineer is performed at the Contractor's risk.

2.02 BORROW MATERIAL

- A. The Contractor shall supply any required borrow material from offsite, under the Contract Sum. Requirements for this offsite fill material shall be as specified hereinafter.

Fill material supplied by the Contractor from an offsite source shall be granular fill, free of organic or other deleterious material with a maximum particle size of 4 inches, and capable of supporting construction traffic and being compacted to the densities hereinafter specified.

This fill material shall meet with the approval of the Owner's Field Representative and/or Engineer, and shall generally be consistent with onsite material approved for fill areas.

PART 3.00 - EXECUTION

3.01 INSPECTION

- A. Examine the areas and conditions where Earthwork Operations are to be performed and notify the Owner's Field Representative of conditions detrimental to the proper and timely completion of the Work. Do not proceed with the Work until unsatisfactory conditions have been corrected by the Contractor in a manner acceptable to the Owner's Field Representative.

3.02 INSTALLATION

A. General Construction Details

1. The Contractor shall remove all soil, rock and other material, and utilize or dispose of these materials as shown on the Drawings and as specified herein.
2. The Contractor shall carry out excavation and embankment to the subgrade surface elevations which conform with the finished grades as shown on the Drawings, as determined by the thickness of pavements, depths of topsoil required, etc. In building areas, Work shall be carried to subgrade floor elevations as determined by thickness of floor slabs and subfloor drainage materials as indicated on the Contract Drawings or the Owner's Field Representative Drawings.
3. The Contractor shall be responsible at all times for carrying out all excavation and embankment operations in a safe and prudent manner so that all persons and property will be protected from hazard. The Contractor shall comply with all applicable safety and protection laws, rules and regulations of all Federal, State and Local Agencies having jurisdiction.

B. Drainage during Construction

1. During grading operations, pits, cuts, excavation areas and/or embankments and subgrades shall be shaped, sloped and maintained to facilitate drainage of surface water. Existing drainage routes shall not be choked or obstructed until new ones are available. Temporary culverts, pumps or other equipment shall be used to facilitate drainage of fills during construction.

C. Dust Control

1. Throughout all operations covered by this Section of the Project Specifications, the Contractor shall provide all necessary measures to control dust through the use of water, resin-in-water emulsion or other material in accordance with the approval of the Owner's Field Representative, at such locations and during such periods as he may direct, or as may be required by Local Ordinance or Authorities.
2. Application of spray-on adhesive (resin-in-water emulsion) shall be applied at a rate of 300 gallons per acre. The resin-in-water emulsion shall be diluted at a ratio of 4:1 and shall be applied with a fine spray nozzle. The treated soil shall not be used for travel.
3. Watering equipment shall consist of pipelines, tanks, tank trucks or other approved devices capable of applying a uniform spread of water over the surface. A suitable device for regulating the flow and positive shut-off of the water shall be provided for positive control by the operator.
4. The Owner's Field Representative will advise the Contractor of any unsatisfactory

procedures for dust control. If the unsatisfactory procedures are not corrected promptly, the Owner's Field Representative may suspend the performance of any or all construction until the condition has been corrected.

D. Excavation

1. The Contractor shall be responsible for all excavation of whatever material encountered, and with the exception of "Undercut Excavation", there will be no extra compensation for any excavation, regardless of the nature of the subsoil. All excavation under this Contract shall be considered as "Unclassified Excavation" as defined in Section 2.01 of these Project Specifications.
2. The Contractor shall be responsible for the disposal offsite of all surplus excavated material. Prior to commencement of excavation, the Contractor shall verify with the Owner's Field Representative the quantity of surplus material, if any, he estimates will be disposed of offsite.
3. In the event the Contractor disposes of too much excavated material, he shall replace this material as necessary and required, at his own cost and expense. Material to be replaced shall meet the requirements for fill material as specified herein and shall be subject to the approval of the Owner's Field Representative and/or Engineer.

E. Topsoil

1. General Requirements

- (a) Topsoil, where present on the site, shall be stripped and stockpiled by the Contractor in sufficient quantity to insure compliance with the Drawings and Specifications.
- (b) Existing topsoil is the property of the Owner. Do not remove existing topsoil from site.
- (c) If topsoil is removed from the site, the Contractor shall replace the topsoil at his own cost and expense.
- (d) Topsoil shall not be used for fill or embankment unless specifically authorized by the Owner's Field Representative and then only in those locations and as specifically approved by the Owner's Field Representative.

2. Stripping of Topsoil

- (a) Topsoil shall be stripped for its full depth within the entire limits of earthwork including the proposed building areas.
- (b) Strip topsoil in a way that prevents incorporation of the underlying subsoil or other objectionable material. Remove heavy growths of grass from areas before stripping.
- (c) Topsoil shall not be stripped beneath the spread of the branches of trees to be saved unless approved otherwise by the Owner's Field Representative.
- (d) Topsoil stripping shall be completed prior to the start of general excavation in the area.

3. Stockpiling of Topsoil

- (a) All topsoil suitable shall be kept separate from other material, stored and stockpiled on the site in locations approved by the Owner's Field Representative.
- (b) Stockpiled topsoil shall be free from trash, brush, stones over 3" diameter, and other extraneous matter.
- (c) Grade and slope stockpiles for proper drainage and to prevent erosion.
- (d) Protect all areas which are not to be resurfaced or regraded, areas to be left undisturbed, and adjacent areas outside of the Contract limits from damage by stripping operations.

4. Deficiency of Topsoil

- (a) If there is not a sufficient quantity of topsoil present on the site, the Contractor shall supply, from off-site source(s), the necessary quantity of topsoil to complete the topsoil operations as specified herein or shown on the Drawings. Specifications for topsoil furnished from offsite source(s) shall be as specified under the appropriate Article of the Specifications. All such topsoil shall be furnished under the Contract Sum.

5. Spreading of Topsoil

- (a) Topsoil shall be spread over the specified areas as soon as grading operations have been completed. The Contractor shall place topsoil to a minimum depth of six (6) inches on all embankments, planting areas, seeded areas, etc., first scarifying the subgrade to a depth of two (2) inches for the bonding of the topsoil with the subsoil. Topsoil shall be raked to an even surface and cleared of all debris, roots, stones and otherwise unsatisfactory material.
- (b) Immediately upon completion of topsoil operations, embankments and all other seeded areas shall be seeded in accordance with the appropriate Article of the Specifications.

F. Rock Excavation

1. General Requirements

- (a) The Contractor shall excavate, remove and dispose of rock within the limits specified and in accordance with the Drawing, Specifications and/or as approved by the Owner's Field Representative.
- (b) Unless otherwise specified or directed rock excavation shall be carried to a depth six (6) inches below subgrade surface. The subgrade shall then be brought to a smooth subgrade surface with suitable approved material and compacted to the specified density.

2. Shattered Rock

- (a) If, in the course of rock excavation, the rock below grade is shattered due to over drilling or blasting, and the Owner's Field Representative and/or Geotechnical

Engineer considers such shattered rock to be unfit for support of structures, the shattered rock shall be removed and the excavation backfilled with concrete, screened gravel or crushed stone, as the Owner's Field Representative and/or Geotechnical Engineer approves. All such removal and backfilling shall be performed by and at the expense of the Contractor.

3. Slope Preservation

- (a) Where rock cuts requiring drilling and blasting will be exposed after the Project is completed, all necessary precautions shall be exercised to preserve the finished rock slope in a natural undamaged condition, with the surface remaining reasonably straight and clean. Blast holes shall be drilled on the inclination of slope along the line of the proposed finished slope and in the adjacent areas. An approved system of blasting shall be employed. The spacing of the blast holes and the method of blasting required will be dependent upon the quality and the structure of the rock encountered and the method of blasting used in approaching the slope. The Contractor shall adjust his operations to obtain the required slope conditions required by the Drawings.

4. Blasting

- (a) When blasting is performed, the Contractor shall use proper methods of protection and shall be responsible for all damages due either directly or indirectly to such operations. He shall comply with all State, County and local regulations and acquire all necessary insurance, permits and licenses. Blasting shall be conducted so that the resulting vibrations at the nearest structure do not exceed a maximum particle velocity of 2 in./sec. The use of explosives shall not be permitted within 50 feet of concrete that has been in place for less than 7 days.

5. Payment

- (a) No additional payment will be made for Rock Excavation within the scope of the Contract Work. Payment shall be considered as being included in the Contract Sum.
- (b) Rock Excavation resulting from changes in scope to the Contract Work, where directed by the Owner's Field Representative, will be paid for as "Extra Work" in accordance with the appropriate Unit Price in the Proposal. Such Rock Excavation shall be defined as follows:
 - (1) Removal of rock that is present in definite ledge formation, and which requires blasting or special excavation methods and equipment for removal. Rock excavation shall also include removal of boulders more than one (1) cubic yard in volume.
 - (2) Rock Excavation shall not include removal of soft or disintegrated rock, removal of loose or previously blasted rock in rock fills or elsewhere, or removal of rock beyond the maximum pay limits as specified herein and indicated on the Drawings.
 - (3) Material which can be excavated by means of bulldozers, such as "CAT D9H" or equivalent, with hydraulic attachment having a single tooth, will be considered as Earth Excavation and not Rock Excavation.

G. Subgrade Undercutting

1. General Requirements

- (a) The Owner's Field Representative and/or Geotechnical Engineer shall inspect the subgrade surface in areas of cut and the embankment foundation in areas of fill to determine if any "Undercut Excavation" is required and the extent of such undercutting. The Contractor shall, upon written authorization of the Owner's Field Representative, excavate, remove and dispose of any such unsuitable material and replace same with compacted fill material in accordance with these Specifications to proper grade as shown on the Drawings.

2. Payment

- (a) Such removal and replacement of Unsuitable Material as directed will be paid for as "Extra Work" in accordance with the Unit Price in the Proposal. Removal and replacement of material without written authorization shall be performed at the Contractor's expense. The Contractor shall maintain a record of the Unsuitable Material removed for submittal to the Owner's Field Representative within ten (10) working days of the completion of such "Extra Work" in a particular area.

H. Proof Rolling of Subgrade Surface

1. All subgrade surfaces shall be proof-rolled by means of heavy rollers to locate and permit timely correction of subgrade deficiencies, which will adversely affect the performance of the pavement structure. Equipment capable of providing a minimum weight of ten (10) tons shall be available as required by the Geotechnical Engineer.

I. Pavement and Building Subgrade

1. All subgrade surfaces, prior to fine grading for pavement and building construction, shall be graded to within one-tenth (0.1) foot for building and two-tenths (0.2) foot for pavement of the required subgrade surface elevations. This tolerance shall balance, so that the surface can later be fine graded without adding or removing material. A certified "as built" survey of the grading shall be provided the Owner prior to acceptance of the grading.
2. In cut sections, proof-rolling of the subgrade surface shall be performed to determine the location and extent of areas below subgrade surface that may require subgrade undercutting. Should any portion of the cut subgrade surface fail to provide satisfactory support for the proof-rolling operation, the Owner's Field Representative and/or Geotechnical Engineer may order corrective undercut and backfill performed. Payment for such corrective work shall be as specified elsewhere herein under "Subgrade Undercutting".
3. In embankment sections, proof-rolling of the subgrade surface shall be performed to determine the uniformity of the compaction below the subgrade surface and to locate subgrade deficiencies requiring corrective work. Any deficiencies discovered during proof-rolling operations shall be corrected in a manner satisfactory to the Owner's Field Representative and/or Geotechnical Engineer. After all corrective work has been completed, the surface shall be proof-rolled again. Corrective work shall not be considered complete and acceptable until the embankment shows satisfactory and uniform response to the proof-rolling operations. All Work necessary and required to correct subgrade deficiencies in embankment sections shall be at the Contractor's expense.

END OF SECTION

SECTION 02315

TRENCHING AND BACKFILLING

PART 1.00 - GENERAL

1.01 GENERAL REQUIREMENTS

- A. Work of this Section, as shown or specified, shall be in accordance with the requirements of the Contract Documents.

1.02 WORK INCLUDED

- A. Work of this Section includes all labor, materials, equipment and services necessary to complete the Trenching and Backfilling as shown on the drawings and specified herein, including, but not limited to, the following:
 - 1. All necessary excavation, including disposal of unsuitable and/or surplus material.
 - 2. All necessary backfill and compaction, including furnishing additional suitable backfill material as required.
 - 3. Sheet piling, shoring and bracing.
 - 4. Dewatering of trenches.

1.03 RELATED WORK

- A. Section 02200 Site Preparation
- B. Section 02300 Earthwork
- C. Section 02370 Erosion and Sediment Control

1.04 QUALITY ASSURANCE

- A. Quality Assurances indicated in Section 02300 of these Project Specifications shall apply to this Section.

1.05 SUBMITTALS

- A. Submittals indicated in Section 02300 of these Project Specifications shall apply to this Section.
- B. Submit copies of material gradation for the aggregate bedding material for review and approval prior to any materials being delivered to the site.

1.06 DELIVERY, STORAGE AND HANDLING (NOT USED)

1.07 JOB CONDITIONS

- A. All Job Conditions indicated in Section 02200 of these Project Specifications shall apply to this Section.

1.08 WARRANTY (NOT USED)

PART 2.00 - PRODUCTS

2.01 MATERIALS DEFINITIONS

A. Backfilling

1. After proper inspection and tests have been made, excavations shall be backfilled using the following backfill material:
 - (a) Run of Trench – Where indicated on the Drawings or specified herein, run of trench will be placed in 8” compacted lifts. The run of trench shall not include frozen materials, debris, organic materials, large stones, or other unsuitable materials. Should there be a deficiency in the material, the Contractor shall furnish additional proper backfill material, at no additional cost to the Owner.
 - (b) Run of Bank – Where indicated on the Drawings or specified herein, run of bank will be placed and compacted to 95% standard proctor in 6” lifts. The Contractor shall furnish all necessary and required select backfill material at no additional cost to the Owner.
 - (c) Crushed Stone Bedding - Where indicated on the Drawings or specified herein, crushed stone bedding consisting of durable particles graded from fine to coarse in a reasonably uniform combination between ¾” and 1-1/2” shall be supplied and compacted for trench backfill at no additional cost to the Owner.
2. All backfill material shall be free from large stones (4 inches or larger), clods, topsoil, sod, frozen earth, wood or any other objectionable material as approved by the Owner's Field Representative and/or Geotechnical Engineer.
3. Unless otherwise specified, Standard Backfill shall be used.

PART 3.00 - EXECUTION

3.01 INSPECTION

- A. Examine the areas and conditions where Trench Excavation and Backfill operations are to be performed and notify the Owner's Field Representative of conditions detrimental to the proper and timely completion of the Work. Do not proceed with the Work until unsatisfactory conditions have been corrected by the Contractor in a manner acceptable to the Owner's Field Representative.

3.02 INSTALLATION

A. General Construction Details

1. Trench excavation shall be performed by the Contractor to conform with the line and grade

of the various utilities and the bottom of the foundations and/or footings for subsurface structures as shown on the Drawings and as specified herein.

2. All excavations shall be kept free from water, snow and ice during construction.
3. The Contractor shall be responsible at all times for conducting all operations in a safe and prudent manner so that all workmen and the public will be protected from hazard. The Contractor shall observe all applicable local, State and/or Federal requirements, and he shall obtain all necessary permits and pay all fees, deposits and charges in connection with the acquiring of said permits.
4. All fills shall be constructed to a minimum of two (2) feet above the outside top of the Conduit prior to beginning the Trench Excavation.

B. Trench Excavation

1. General Requirements

- (a) The Contractor shall be responsible for the excavation of all materials encountered, with the exception of "Rock Excavation in Trench" and "Additional Trench Excavation" as hereinafter defined. There shall be no extra compensation for any excavation regardless of the character or type of subsoils, except as noted.

2. Method of Trenching

- (a) Trenching shall be performed with excavating equipment except in such places where Work performed in this manner will injure trees, buildings, existing utilities or structures, or where the use of equipment is specifically forbidden, in which case hand methods shall be employed.

3. Preparation of Bottom of Trench

- (a) The bottom of the trenches shall be prepared to conform to the grade of the pipe and the bottom of the foundation of structures. The bottom of trenches shall be shaped as shown on the Details of the Drawings and recessed for pipe bells. Special precautions shall be exercised to insure that pipes, when installed, will not rest on rock, masonry or any other materials which would present a nonuniform foundation. Where two or more pipes are to be laid in the same trench, the Contractor will excavate the trench so that all pipes are laid on undisturbed material.

4. Unsuitable Material at Bottom of Trench

- (a) When the material at the bottom of a trench is unsuitable, as determined by the Owner's Field Representative and/or Geotechnical Engineer, it shall be removed to such depth as the Owner's Field Representative and/or Geotechnical Engineer may direct, and backfilled with suitable granular material obtained from the project excavation, or from borrow excavation if it is not available within the project. Payment for removal and replacement of this unsuitable material shall be made under the Unit Price for "Additional Trench Excavation", as hereinafter defined.

5. Excavation Below Required Grade

- (a) Excavation below the grade of pipes or subsurface structures shown on the

Drawings, necessitated by changes in grades in accordance with the directions of the Geotechnical Engineer and/or Owner's Field Representative, will be paid for under "Additional trench Excavation", as hereinafter defined.

- (b) Excavation carried below the required level without authorization by Geotechnical Engineer and/or Owner's Field Representative shall be backfilled at the Contractor's expense with granular material as approved by the Owner's Field Representative. Compaction of backfill material shall be as specified elsewhere herein.

6. Excavation in Paved Areas

- (a) When excavations are to be made in paved surfaces, the paved surfaces shall be line-cut one (1) foot beyond each side of the trench and ahead of the excavation by means of pneumatic tools, saw cutting or other approved tools to provide a clean, uniform edge, with minimum disturbance of remaining pavements. The pavements so removed shall not be used for trench backfill, but shall be disposed of as approved by the Owner's Field Representative.

7. Surplus Excavated Material

- (a) Excavated material not required for fill or backfill shall be disposed of by the Contractor as approved by the Owner's Field Representative. In general, suitable surplus excavated material may be used as embankment. Unsuitable surplus material shall be disposed of in accordance with the approval of the Owner's Field Representative and/or the Geotechnical Engineer.

C. Rock Excavation in Trench

1. The Contractor shall excavate, remove and dispose of rock (including boulders) in trench within the limits specified and in accordance with the Drawings and Specifications and/or as approved by the Owner's Field Representative.
2. Rock excavation in trench shall be defined as removal of boulders larger than one (1) cubic yard in volume and removal of ledge rock, concrete or masonry structures which cannot be ripped with a 1½ cubic yard backhoe or equivalent and requires drilling, blasting, or other special methods for removal.
3. For pipe installation, rock excavation shall be carried to a level a minimum of twelve (12) inches below the invert elevation of pipe. The trench shall then be brought to proper grade for laying of the pipe by the placing of an approved aggregate bed.
4. Methods and procedures to be followed for blasting operations shall be in accordance with the requirements of Section 02300 in these Project Specifications, for "Rock Excavation".

D. Additional Trench Excavation

1. Authorized Changes and/or Alterations
 - (a) The Site Engineer and/or Owner's Field representative may, as a result of unforeseen conditions arising during the progress of the work, order the grade or location of any pipe or other structure, changed from that established on the Drawings or previously designated in the field, or may order the removal of

unsuitable material from the bottom of any trench.

2. Additional Payment to Contractor

- (a) Should such changes or alterations result in an addition to the quantity of earth trench excavation, this additional earth excavation shall be considered as "Extra Work" and payment for same shall be made to the Contractor on the basis for the Unit Price in the Contract for "Additional Trench Excavation".

3. Credit to Owner

- (a) Should such changes or alterations result in a reduction in the quantity of earth excavation, then the Unit Price in the Contract for "Additional Trench Excavation" shall be applied to the quantity of reduced earth excavation to determine a credit to the Owner for the reduction in the amount of earth trench excavation occasioned by such change.

4. Method of Measurement

- (a) The quantity of additional earth excavation in trench measured for payment to the Contractor or reduction of earth excavation in trench measured for credit to the Owner, shall be determined by plotting the profile of the bottom of the trench as indicated on the Drawings and the final location of pipe and/or structure(s). The amount of earth excavation computed as payment or credit shall be the volume measured between these limits using a constant width of trench equal to the outside pipe diameter, plus two (2) feet for pipe and one (1) foot outside of walls for structure(s). The depth of the excavation shall be limited to the lesser of the subgrade elevation or two (2) feet above the outside top of pipe in embankments, as shown on the Details of the Drawings.

E. Backfilling

1. General Requirements

- (a) After proper inspection and tests have been made, excavations shall be backfilled using the backfill material as defined in Section 2.01A of this Project Specification.

2. Placement and Compaction

- (a) Backfill for pipe and ducts shall be placed evenly and carefully around and over the pipe in six (6) inch maximum layers. Each layer shall be thoroughly and carefully rammed until one (1) foot of cover exists over the pipe. The remainder of the backfill shall then be placed and compacted in maximum one (1) foot layers. Each layer shall be compacted by approved mechanical tamping machines to a density equal to that of adjacent original material, but not less than 92% of the maximum dry density as defined by ASTM D-1557, latest issue for that soil.
- (b) Backfill shall proceed to the lines and grades as shown on the Drawings and/or as approved by the Owner's Field Representative. Backfill areas which settle shall be corrected to the satisfaction of the Owner's Field Representative at the Contractor's expense.

3. Removal of Sheeting

- (a) During backfill operations, sheeting which is to be removed shall at no time extend into the backfill which is being compacted. The sheeting shall be withdrawn so as to always be above the backfill.

4. Protection

- (a) The Contractor shall be responsible for safeguarding all pipes and structures being backfilled, as any damage occurring to same either during the backfilling operations or after the backfilling operations have been completed shall be corrected to the satisfaction of the Owner's Field Representative at the Contractor's expense.

- (b) The Contractor shall place a six (6) inch wide red plastic tape above all underground utility lines where accidental rupture would be potentially hazardous. The tape shall be buried six to eight inches below grade directly above the utility line surface.

F. Sheeting, Shoring and Bracing

1. General Requirements

- (a) At his own expense, the Contractor shall furnish, install and maintain such sheeting, shoring, bracing and cofferdamming, etc., as may be needed to support the sides and roofs of excavations and to prevent any earth or rock movements which might in any way diminish or affect the necessary width of the excavation, endanger the safety of persons, injure or delay the work, or jeopardize the safety of adjacent pavements, property, buildings or other structures. The Work of sheeting, shoring and bracing shall, at all times, be in accordance with the requirements of all authorities having jurisdiction.

2. Contractor to be Solely Responsible

- (a) The Contractor shall be entirely and solely responsible for the adequacy and sufficiency of all supports and of all sheeting, bracing, shoring cofferdamming, etc. The Contractor shall assume entire and sole liability for damages on account of injury to persons, adjacent pavements, and public and private property including, but not limited to, the Work under construction, buildings and other structures, which injury shall result directly or indirectly from Contractor's failure to install or to leave in place adequate and sufficient supports, sheeting, bracing, shoring, cofferdamming, etc.

G. Disposal of Water

1. General Requirements

- (a) The Contractor shall remove, by pumping or other means approved by the Owner's Field Representative, any surface or groundwater which may accumulate in excavations, and he shall at all times keep excavations free from water while Work is being performed in them. If the bearing soils are disturbed by water seepage, the Contractor shall use a predrainage system (wells or wellpoints) to lower the water table.

2. Method of Disposal

- (a) The water from the excavations shall be disposed of in such a manner as will not cause injury or damage to the public health, public property, nearby streams or rivers, the work contemplated or in progress, surfaces of the streets, nor cause any interference with the use of the same. The disposal of this water shall be performed in a manner satisfactory to the Owner's Field Representative and authorities having jurisdiction.

3. Erosion Control

- (a) The Contractor is advised that all operations must conform to Section 02370 of these Project Specifications dealing with Erosion Control Measures.

4. Protection of Masonry

- (a) Newly laid masonry shall be protected from damage resulting from dewatering operations by the use of canvas or other methods as may be approved. No water shall be allowed to pass through masonry or pipes without the approval of the Owner's Field Representative.

END OF SECTION

SECTION 02370

EROSION AND SEDIMENT CONTROL

PART 1 - GENERAL

1.01 GENERAL REQUIREMENTS

- A. Work of this Section, as shown or specified, shall be in accordance with the requirements of the Contract Documents.

1.02 WORK INCLUDED

- A. Work of this Section includes all labor, materials, equipment and services necessary to complete the temporary erosion control measures as shown on the Drawings or as ordered by the Site Engineer and/or Owner's Field Representative during the life of the Contract.
- B. Vegetative Measures
 - 1. Topsoil
 - 2. Mulching
- C. Temporary Structural Measures
 - 1. Temporary Swale
 - 2. Straw Bale Dike
 - 3. Silt Fence
 - 4. Check Dam
 - 5. Stabilized Construction Entrance
 - 6. Dust Control
 - 7. Dewatering Sump Pit

1.03 RELATED WORK

- A. Section 02200 Site Preparation
- B. Section 02300 Earthwork
- C. Section 02315 Trenching and Backfilling

1.04 QUALITY ASSURANCE

- A. The Contractor shall perform all operations in accordance with the rules, regulations and ordinances of those governing bodies having jurisdiction.
- B. The Contractor shall not disturb more area than noted on Drawings the unless prior written

authorization has been received from the Town.

C. Satisfactory Performance

1. Soil erosion and water pollution control measures shall at all times be satisfactory to the Owner's Field Representative. When it becomes necessary, the Owner's Field Representative will inform the Contractor of unsatisfactory construction procedures and operations. If the unsatisfactory construction procedures and operations are not corrected promptly, the Owner's Field Representative may suspend the performance of any or all other construction until the unsatisfactory condition has been corrected, and such suspension shall not be the basis of any claim by the Contractor for additional compensation from the Owner nor for an extension of time to complete the Work.

1.05 SUBMITTALS

- A. Prior to the Start of the construction, the Contractor shall submit to the Site Engineer and Owner's Field Representative the program and schedule for accomplishment of temporary and permanent erosion control work applicable during all phases of construction, and the plan for disposal of waste materials. Where erosion is likely to be a problem, clearing and grubbing operations shall be scheduled so that grading operations and permanent erosion control features can follow immediately thereafter, if the Project conditions permit; otherwise temporary erosion control measures may be required between successive construction stages. No Work shall be started until the erosion control schedule and methods of operations have been accepted by the Site Engineer and Owner's Field Representative.
- B. The Contractor shall submit the following material designs for the type specified prior to materials being delivered to the site:
 1. Silt Fence Filter Cloth with Netting
 2. Dust Control Material
 3. Temporary Seeding
 4. Mulch

1.06 DELIVERY, STORAGE & HANDLING (NOT USED)

1.07 JOB CONDITIONS

- A. Protection of existing conditions as indicated in Part 1.07 of Section 02200 of these Project Specifications shall apply to this Section.
- B. The Contractor shall provide all necessary safeguards as may be required to prevent damage to property beyond the Work area or adjacent property.
- C. Area of Work
 1. The Owner's Field Representative shall have the authority to increase or decrease the surface area of erodible earth material exposed by clearing and grubbing, and/or excavation and fill operations, and to direct the Contractor to provide immediate permanent or temporary pollution control measures to prevent contamination of adjacent streams or other watercourses, lakes, ponds or other areas of water impoundment.

2. In general, the limit of the area of clearing and grubbing and/or excavation and fill operations in progress, shall be commensurate with the Contractor's capability and progress in keeping the finished grade, mulching, seeding and other such permanent control measures current and in accordance with the accepted schedule. Temporary erosion control measures shall immediately be provided by the Contractor should seasonal limitations make such coordination unrealistic, as determined by the Owner's Field Representative.

D. Temporary Erosion Control Measures

1. Temporary erosion control measures shall be used to correct conditions that develop during construction that are needed prior to installation of permanent control features, or that are temporarily needed to control erosion that develops during normal construction practices, but which are not associated with permanent control features on the Project. All slopes and stockpile areas that will remain undisturbed and/or not topsoiled and seeded for a period of thirty (30) days shall be temporarily seeded as specified on Drawings.

E. Permanent Erosion Control Measures

1. The Contractor shall incorporate all permanent erosion control features into the Project at the earliest practical time as outlined in the Project Schedule.

PART 2 – PRODUCTS

2.01 GENERAL

- A. All materials shall be in accordance with the items specified on the Drawings and/or contained in the “New York State Standards and Specifications for Erosion and Sediment Control”, July 2016.

2.02 SILT FENCE

- A. Fence post shall be at least 36 inches long. Wood posts shall be of hardwood with a minimum cross section area of 3 inches. Steel posts shall be standard “T” or “U” sections and should weigh no less than one (1) pound per linear foot.
- B. Additional support shall be provided by a woven wire fence. Woven wire fence shall be at least 14-gauge with 2” x 4” openings. Plastic netting may be used in lieu of woven wire fence. The plastic netting shall be sewn on top of the geotextile filter fabric. Plastic netting shall have the following minimum properties.

Netting Property	Minimum Acceptable Value
Tensile Strength (lbs/ft)	185
Elongation (%)	11

- C. The geotextile filter fabric shall have the following minimum material properties.

Geotextile Property	Minimum Acceptable Value	Test Method
Grab Tensile Strength (lbs)	90	ASTM D1682
Elongation at Failure (%)	50	ASTM D1682
Mullen Burst Strength (psi)	190	ASTM D3786
Puncture Strength (lbs)	40	ASTM D751(mod)
Slurry Flow Rate (gal/min/sf)	0.3	

Apparent Opening Size (AOS)	40-80	US Std Sieve CW-02215
Ultraviolet Radiation Stability	90	ASTM G26

2.03 STABILIZED CONSTRUCTION ENTRANCE

A. The geotextile filter fabric shall have the following minimum material properties.

Geotextile Property	Minimum Acceptable Value	Test Method
Grab Tensile Strength (lbs)	200	ASTM D1682
Elongation at Failure (%)	50	ASTM D1682
Mullen Burst Strength (psi)	190	ASTM D3786
Puncture Strength (lbs)	40	ASTM D751(mod)
Apparent Opening Size (AOS)	40-80	US Std Sieve CW-02215

B. Stone size shall be a minimum of two (2) inches conforming to AASHTO M-43, Size no. 1.

2.04 DUST CONTROL

A. Spray adhesives for use on mineral soils shall be as specified in the Table below.

Material	Water Dilution	Type of Nozzle	Apply Gallons/Acre
Acrylic Polymer	7:1	Course Spray	500
Latex Emulsion	12.5:1	Fine Spray	235
Resin in Water	4:1	Fine Spray	300
Polyacrylamide (PAM) Spray on or Dry Spread	Apply according to manufacturer's instructions.		
Acidulated soy bean soap stick	None	Course Spray	1200

B. Tillage- to roughen surface and bring clods to the surface. This is a temporary emergency measure which should be used before soil blowing starts. Begin plowing on windward side of site. Chisel-type plows spaced about 12 inches apart, and spring-toothed harrows are examples of equipment which may produce the desired effect.

C. Sprinkling - site is sprinkled until the surface is wet.

D. Barriers - solid board fences, snow fences, burlap fences, crate walls, bales of hay, and similar material can be used to control air currents and soil blowing.

E. Calcium chloride- shall be in the form of loose, dry granules or flakes fine enough to feed through commonly used spreaders at a rate that will keep surface moist but not cause pollution or plant damage. If used on steeper slopes, then use other practices to prevent washing into streams, or accumulation around plants.

F. Stone – shall be crushed stone or coarse gravel conforming to AASHTO M-43, Size no. 57.

2.05 MULCH

A. Mulch Materials

Material	Quality Standard	Application Rate per 1,000 s.f.	Depth of application
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Small Grain Straw	Air dried; free of undesirable seeds and coarse material	90 to 100 lbs.	Cover about 90% of surface
Wood chips or Shavings	Green or air dried; free of objectionable coarse material	500 to 900 lbs	--
Jute Twisted Yarn	Undyed, unbleached plain weave. Warp 78 ends per yd. Weft 41 ends per yd. 60-90 lbs/roll	48" x 50 yards 48" x 75 yards	--
Gravel, crushed stone or slag	Washed: AASHTO M-43, Size no. 2. AASHTO M-43, Size no. 3.	9 cubic yards	Use Size no. 3 where subject to traffic

1. Alternate mulch materials as described in the "New York State Standards and Specifications for Erosion and Sediment Control", July 2016 may be utilized with prior written approval of the Engineer.

B. Mulch Anchoring

1. Mulch anchoring should be accomplished immediately after placement to minimize loss by wind or water. Anchoring may be done by one of the following methods, depending upon the size of the area, steepness of slopes, and costs.
2. Peg and Twine - Drive 8 to 10 inch wooden pegs to within 2 to 3 inches of the soil surface every 4 feet in all directions. Stakes may be driven before or after applying mulch. Secure mulch to soil surface by stretching twine between pegs in a criss-cross and a square pattern. Secure twine around each peg with two or more round turns.
3. Mulch Nettings - Staple the light weight paper, jute, cotton, or plastic nettings to the soil surface. Mulch netting shall be biodegradable.
4. Crimper (mulch anchoring tool) - A tractor-drawn implement, somewhat like a disc-harrow especially designed to push or cut some of the broadcast long fiber mulch 3 to 4 inches into the soil so as to anchor it and leave part standing upright. This technique is limited to areas traversable by a tractor, which must operate on the contour of slopes. Straw mulch rate must be 3 tons per acre. No tackifying or adhesive agent is required.
5. Liquid Mulch-Binders - May be used to anchor salt hay or straw mulches.
 - a. Applications should be heavier at edges where wind catches the mulch, in valleys, and at crests or banks. Remainder of area should be uniform in appearance.
 - b. Use one of the following:
 - 1) Emulsified asphalt - (SS-1, CSS-1, CMS-2, MS-2, RS-1, RS-2, CRS-1, and CRS-2). Apply 0.04 gallons per sq. yd. or 194 gallons per acre on flat slopes less than 8 feet high. On slopes 8 feet high or more use 0.075 gallons per sq. yd. or 363 gallons per acre.
 - 2) Cutback asphalt - rapid curing (RC-70, RC-250, and RC-800) or medium curing (MC-250 or MC-800). Apply 0.04 gallons per sq. yd. or 194 gallons per acre on flat areas and on slopes less than 8 feet high. On slopes 8 feet or more high, use 0.075 gallons per sq. yd. or 363 gallons per acre.

- 3) Synthetic or Organic binders - binders such as Curasol, DCA-70, Petro-set and Terra-Tack, or equal, may be used at rates recommended by the manufacturer to anchor mulch materials.

PART 3 - EXECUTION

3.01 INSPECTION

- A. Examine the areas and conditions where Erosion Control Measures are to be installed and notify the Owner's Field Representative of conditions detrimental to the proper and timely completion of the Work. Do not proceed with the Work until unsatisfactory conditions have been corrected by the Contractor in a manner acceptable to the Owner's Field Representative.

3.02 GENERAL REQUIREMENTS

- A. The Contractor shall conduct his operations to minimize erosion of soils and to prevent silting and muddying of streams, rivers, irrigation systems, impoundments (lakes, reservoirs, etc.) and lands adjacent to or affected by the Work, in accordance with the approved Sequence of Construction, Drawings and these Project Specifications.
- B. Construction of drainage facilities and performance of other Work that will contribute to the control of erosion and sedimentation shall be carried out in conjunction with earthwork operations or as soon thereafter as practical.
- C. Where erosion is likely to be a problem, clearing and grubbing operations shall be scheduled so that grading operations and permanent erosion control features can follow immediately thereafter, if the Project conditions permit; otherwise, temporary erosion control measures may be required between successive construction stages. The area of bare soil exposed at any one time by construction operations shall be kept to a minimum.
- D. Throughout all operations covered by this Section, the Contractor shall provide all necessary measures to control dust through the use of water, calcium chloride or other material in accordance with the approval of the Owner's Field Representative, at such locations and during such periods as he may direct, or as may be required by Local Ordinance or Authorities.

3.03 TEMPORARY EROSION CONTROL MEASURES

- A. Temporary erosion control measures shall be used to correct conditions that develop during construction that are needed prior to installation of permanent control features, or that are temporarily needed to control erosion that develops during normal construction practices, but which are not associated with permanent control features on the Project.
- B. The Contractor shall install all temporary sediment and erosion control measures in accordance with the Details and as described herein.

3.04 DUST CONTROL

- A. Throughout all operations covered by this Section of the Project Specifications, the Contractor shall provide all necessary measures to control dust through the use of water, resin-in-water emulsion or other material in accordance with the approval of the Owner's Field Representative, at such locations and during such periods as he may direct, or as may be required by Local Ordinance or Authorities.
- B. Any disturbed areas that are left exposed more than 14 days, and are not subject to construction

traffic, will immediately receive a temporary seeding. If the season prevents the establishment of a temporary cover, the disturbed areas will be mulched with straw or equivalent material.

- C. Application of spray-on adhesive (resin-in-water emulsion) shall be applied at a rate of 300 gallons per acre. The resin-in-water emulsion shall be diluted at a ratio of 4:1 and shall be applied with a fine spray nozzle. The treated soil shall not be used for travel.
- D. Watering equipment shall consist of pipelines, tanks, tank trucks or other approved devices capable of applying a uniform spread of water over the surface. A suitable device for regulating the flow and positive shut-off of the water shall be provided for positive control by the operator.
- E. The Owner's Field Representative will advise the Contractor of any unsatisfactory procedures for dust control. If the unsatisfactory procedures are not corrected promptly, the Owner's Field Representative may suspend the performance of any or all construction until the condition has been corrected.

3.05 TEMPORARY SEEDING

- A. Fertilizer shall be applied at the rate of 14 lbs. per 1000 square foot or 600 lbs. per acre, using 5-10-10 or equivalent.
- B. Annual ryegrass shall be applied at the rate of 30 lbs. per acre, or other select mixture described in the standards.
- C. Small grain straw mulch shall be applied at a rate of 90 lbs. per 1000 square foot or 2 tons per acre, to be applied and anchored according to the standards.
- D. All slopes and stockpile areas that will remain undisturbed and/or not topsoiled and seeded for a period of thirty (30) days shall be temporarily seeded as specified on Drawings.

3.06 LIVE STREAMS

- A. Frequent fording of live streams will not be permitted. Temporary bridges or other structures shall be used wherever an appreciable number of live stream crossings are necessary when approved in writing by the Owner's Field Representative, mechanized equipment shall not operate in live streams.
- B. When Work areas are located in or adjacent to live streams, such areas shall be separated from the main stream by a dike or other barrier to keep sediment from entering a flowing stream. Care shall be taken during the construction and removal of such barriers to minimize the muddying of a stream.

3.07 WATERWAYS

- A. All waterways shall be cleared as soon as practical of formwork, sheeting, debris or other obstructions placed during construction operations and which are not a part of the finished Work.
- B. Ditches which are filled or partly inoperative shall be cleaned and made operative before the Contractor stops work for any day, and for the duration of the Contract shall be maintained in a condition satisfactory to the Owner's Field Representative.

3.08 SEDIMENTS AND POLLUTANTS

- A. Water from operations containing sediment shall be treated by filtration, settling basins or other approved means sufficient to reduce the sediment content to no more than that of the stream into which it is discharged.

- B. Pollutants such as fuels, lubricants, bitumens, raw sewage and other harmful materials shall not be discharged into or near rivers, streams, and impoundments or into natural or manmade channels leading thereto. Wash water or waste from concrete mixing operations shall not be allowed to enter live streams.

3.09 PERMANENT EROSION CONTROL MEASURES

- A. The Contractor shall incorporate permanent erosion control features into the Project at the earliest practical time as outlined in his accepted schedule.
- B. No area shall receive permanent seeding prior to approval by the Owner's Field Representative.

3.10 CONCRETE WASTE

- A. Discharge of excess or waste concrete and/or wash water from Concrete Ready-Mix Trucks will be allowed on the construction site, but only in specifically designated diked areas that have been prepared to prevent contact between the concrete and/or wash water and storm water that will be discharged from the site or in locations where waste concrete can be placed into forms to make riprap or other useful concrete products. The cured residue from the concrete washout diked areas shall be disposed in accordance with applicable state and federal regulations. The jobsite superintendent is responsible for assuring that these procedures are followed.

3.11 TEMPORARY FUEL TANKS

- A. Temporary on-site fuel tanks for construction vehicles shall meet all state and federal regulations. Tanks shall have approved spill containment with the capacity required by the applicable regulations. The tank shall be in sound condition free of rust or other damage which might compromise containment. Hoses, valves, fittings, caps, filler nozzles, and associated hardware shall be maintained in proper working condition at all times.

END OF SECTION

SECTION 02510

UNDERGROUND WATER PIPING

PART 1 - GENERAL

1.01 GENERAL REQUIREMENTS

- A. Work of this Section, as shown or specified, shall be in accordance with the requirements of the Contract Documents.

1.02 WORK INCLUDED

- A. Work of this Section includes all labor, materials, equipment and services necessary to complete the Water Distribution System as shown on the drawings and specified herein, including, but not limited to, the following:
 - 1. Installation of water distribution system consisting of piping, fittings, joint restraints, and all necessary and required accessory items and operations including connections to existing facilities.
 - 2. Chlorination and testing.

1.03 RELATED WORK

- A. Section 02315 Trenching and Backfilling
- B. Section 02370 Erosion and Sediment Control
- C. Section 03300 Site Concrete

1.04 QUALITY ASSURANCE

- A. The Contractor shall perform all his operations in accordance with the rules, regulations and ordinances of those governing bodies having jurisdiction.
- B. The installation of all water lines shall conform to the requirements of all agencies having jurisdiction.
- C. The requirements of the Department of Health and/or any other agency having jurisdiction shall govern the horizontal and vertical separation of water lines from sanitary sewers.
- D. Hydrostatic pressure and leakage testing shall be performed in accordance with Part 3.05 of this Specification.
- E. Disinfection of water piping shall be performed in accordance with Part 3.06 of this Specification.
- F. Final Tests and Inspections
 - 1. Upon completion of the Work and before final acceptance by the Owner's Field Representative, the entire water line system shall be subjected to a final inspection in the presence of the Owner's Field Representative. The Work shall not be considered as complete until the requirements for line, grade, cleanliness, leakage tests and workmanship have been completed to the satisfaction of the Owner's Field Representative.

1.05 SUBMITTALS

- A. The Contractor shall submit the following material designs for the type specified for review and approval prior to materials being delivered to the site:
 - 1. Polyvinyl Chloride (PVC) Pressure Pipe and fittings, Schedule 40/80.
 - 2. Joint Restraints.

1.06 DELIVERY, STORAGE & HANDLING

- A. Storage of pipe, fittings, valves, hydrants and other water line appurtenances on the job shall be in accordance with the manufacturer's recommendations, subject to the approval of the Owner's Field Representative.
- B. All pipe fittings, valves, hydrants and other water line appurtenances shall be protected against impact, shock and free fall, and only equipment of sufficient capacity and proper design shall be used in their handling. Special care shall be taken to prevent damage to pipe coatings.
- C. Pipe, fittings, and other water line appurtenances which are defective from any cause, including damage caused by handling, and determined by the Owner's Field Representative as irreparable, shall be unacceptable for installation and shall be replaced at no cost to the Owner as directed by the Owner's Field Representative.
- D. Pipe and all water line appurtenances that are damaged or disturbed through any cause prior to acceptance of the Work shall be repaired, realigned or replaced at the Contractor's expense as directed by the Owner's Field Representative.

1.07 JOB CONDITIONS

- A. The Contractor shall exercise whatever precautions are necessary to protect existing conditions or other Work from damage.
- B. Trenching and Backfill shall be in accordance with Section 02315 of these Project Specifications.
- C. Connections to Existing Facilities
 - 1. The Contractor shall make all required connections of the proposed water line facilities into existing water line facilities, where and as shown on the Drawings and/or approved by the Owner's Field Representative.

PART 2 - PRODUCTS

2.01 POLYVINYL CHLORIDE (PVC) PRESSURE PIPE

- A. General:
 - 1. Shall conform to ASTM D1785 and shall be made from a 12454B compound which is a Type 1, Grade 1 plastic as defined by ASTM D1784. Rerun or reclaimed materials will not be acceptable.
 - 2. Pipe shall comply with the National Sanitation Foundation Standard No. 14 and shall have markings on the pipe to indicate that it has been tested and is in compliance.
- B. Wall Thickness:

1. Shall be Schedule 40 or Schedule 80 as specified on the Drawings and in the Engineer's Report.
- C. Joints:
1. Shall be socket welded made up in accordance with ASTM D2855 with a PVC solvent cement complying with ASTM D2564. The cement shall have a minimum viscosity of 2000 cps and shall be NSF approved for use in potable water systems.
 2. Fittings shall have the same schedule designation, Joint type and be made of the same PVC compound as the connecting pipe.
 3. Socket type pipe fittings for schedule 80 pipe shall conform to ASTM D2467.

2.02 JOINT RESTRAINT FITTINGS

- A. Joint restraint harnesses will be installed on all fittings and joints in the PVC water piping. Fittings shall be constructed of ASTM A536 ductile iron. Restraints for joints and fittings shall be Series 6500 and 7500, respectively, as manufactured by EBAA Iron, Inc.

PART 3 - EXECUTION

3.01 INSPECTION

- A. Examine the areas and conditions where the piping is to be installed and notify the Owner's Field Representative of conditions detrimental to the proper and timely completion of the Work. The Contractor shall not proceed with the Work until the unsatisfactory conditions have been corrected in a manner acceptable to the Owner's Field Representative and/or Governing Agency.

3.02 GENERAL REQUIREMENTS

- A. All polyvinyl chloride (PVC) pressure pipe and fittings shall be installed in accordance with AWWA C605 and M23, latest revisions.
- B. The Contractor shall install all water line pipe, fittings and appurtenances in the locations as shown on the Drawings and/or as approved by the Owner's Field Representative. Pipe and fittings shall be of the type and sizes specified and shall be laid accurately to line and grade. Hydrants, valves and all other water line appurtenances shall be accurately located and properly oriented.

3.03 PIPE INSTALLATION

- A. Laying Pipe
1. Each length of pipe shall be laid with firm, full and even bearing throughout its entire length, in a trench prepared and maintained in accordance with Section 02315 - "Trenching and Backfilling" of these Project Specifications. Pipe will be laid with bells up grade unless otherwise approved by the Owner's Field Representative.
 2. Each length of pipe shall be inspected and cleaned of all dirt and debris before being laid. The interior of the pipe and the jointing seal shall be free from sand, dirt and trash before installing in the line. Extreme care shall be taken to keep the bells of the pipe free from dirt and rocks so that joints may be properly assembled.
 3. No length of pipe shall be laid until the preceding lengths of pipe have been thoroughly embedded in place, to prevent movement or disturbance of the pipe.

- B. Bedding and Backfilling
 - 1. The type of materials to be used in bedding and backfilling and the method of placement shall conform to the requirements of Section 02315 of these Project Specifications and as indicated on the Details of the Drawings.
- C. Protection During Construction
 - 1. The Contractor shall protect the installation at all times during construction, and movement of construction equipment, vehicles and loads over and adjacent to any pipe shall be performed at the Contractor's risk.
 - 2. At all times when pipe laying is not in progress, all open ends of pipes shall be closed by approved temporary water-tight plugs. If water is in the trench when Work is resumed, the plug shall not be removed until the trench has been pumped dry and all danger of water entering the pipe has been eliminated.
- D. Pipe Deflection
 - 1. Maximum allowable deflection for pipe laid without fittings shall be in accordance with the pipe manufacturer's requirements. Deflections that exceed the maximum allowable as established by the pipe manufacturer shall be grounds for rejection of the line of pipe by the Owner's Field Representative.
- E. Cover on piping
 - 1. The water piping shall be laid so as to provide a minimum cover of five (5) feet below proposed finished grade.
- F. Water/Sewer Separation
 - 1. All water pipe crossings above or below storm and/or sanitary sewers shall have a minimum vertical clearance of eighteen (18) inches between the outside of the water piping and the outside of the sewer. At crossings, one full length of water pipe shall be located such that both joints will be as far as possible from the sewer.
 - 2. Water piping shall be laid with a minimum ten (10) foot horizontal clearance from any existing or proposed sanitary sewer or storm drain line.
 - 3. All storm drains and sanitary sewers that cross water piping and do not meet the required vertical and horizontal separation as defined in New York State Department Health Bulletin No. 42, "Recommended Standards for Water Works", 2003 edition, Part 8.8 shall be constructed of approved pressure pipe and shall require individual approval from the Reviewing Authority.

3.04 JOINTS/RESTRAINTS

- A. All joints are to be made watertight in accordance with the requirements specified herein.
- B. Pipe and fittings shall be jointed in strict accordance with the manufacturer's instruction. Jointing of all pipe and fittings shall be performed entirely in the trench.
- C. Solvent Cemented Joints:

1. Shall be made up in accordance with ASTM D2855 and the manufacturers' recommendations.
 2. The Contractor is advised to handle the solvent cements in accordance with ASTM F 402.
- D. Joint restraint harnesses shall be installed in accordance with manufacturers recommended procedures.

3.05 HYDROSTATIC PRESSURE AND LEAKAGE TESTING

- A. Pressure and leakage testing for the water system is specified on the Drawings and in the Engineer's Report.

3.06 DISINFECTION OF WATER SYSTEM

- A. Disinfection procedures for the water system are specified on the Drawings and in the Engineer's Report.

END OF SECTION

SECTION 02920

TOPSOIL AND SEEDING

PART 1.00 - GENERAL

1.01 GENERAL REQUIREMENTS

- A. Work of this Section, as shown or specified, shall be in accordance with the requirements of the Contract Documents.

1.02 WORK INCLUDED

- A. Work of this Section includes all labor, materials, equipment and services necessary to complete the Lawns and Planting as shown on the Drawings and specified herein, including, but not limited to, the following:
 - 1. Treatment of subgrade for the establishment of lawns.
 - 2. Finished grading including topsoil placement, soil treatment, lawn construction, mulching, protection, maintenance, guarantee and placement of lawns.

1.03 RELATED WORK

- A. Section 02200 Site Preparation
- B. Section 02370 Erosion and Sediment Control

1.04 QUALITY ASSURANCE

- A. The Contractor shall perform all his operations in accordance with the rules, regulations and ordinances of those governing bodies having jurisdiction.

1.05 SUBMITTALS

- A. The Contractor shall submit a schedule of his proposed methods and operations of Site Preparation.

1.06 DELIVERY, STORAGE AND HANDLING (NOT USED)

1.07 JOB CONDITIONS

- A. General

The Contractor shall place all required topsoil, replace sod or provide seeding and mulching in accordance with the lines and grades shown on the Drawings and as specified herein. The Contractor shall provide all topsoil required from the approved stockpile accumulated from the Site stripping operations or from offsite sources where a deficiency exists in the stockpiled amount, within the Contract Sum for the Project. No additional cost to the Owner will be incurred for topsoil which must be provided from offsite sources.

- B. Time of Planting - The Contractor shall notify the Owner's Field Representative when sections of the Work have progressed sufficiently, to commence Work on lawns, including placing of topsoil to

finished grade. Thereafter, planting operations shall be performed under favorable weather conditions during the next season or seasons which are normal for such work.

Unless otherwise approved the seeding schedule shall be as follows:

Seeding of Permanent Lawns

April 11 (if soil is frost-free and not excessively moist) to May 15.
August 15 to October 15.

If the lawn areas are not ready for seeding between the time periods designated above, the areas shall be seeded immediately upon completion of topsoil operations, with annual rye grass (Italian Rye) at a rate of five (5) lbs. per 1,000 square feet for a temporary lawn. Lawn work will not be permitted when the soil is frozen or excessively moist. If temporary lawn work has to be provided, the permanent lawn shall be installed during the next seeding season as specified.

- C. All areas not required to be developed otherwise shall be planted with grass under the Contract Sum.

1.08 WARRANTY

- A. Maintenance shall begin immediately following each operation of installation for each portion of lawn and shall continue for the length of this Contract.
- B. Inspection of the Work to determine completion of Contract Work will be performed by the Owner's Field Representative at the conclusion of the maintenance period upon written notice requesting such inspection, submitted by the Contractor at least ten (10) days prior to the anticipated date. The condition of lawns will be noted and a determination made by the Owner's Field Representative whether maintenance shall continue in any part.
- C. Acceptance - After inspection, the Contractor will be notified in writing by the Owner's Field Representative of acceptance of all Work under this Section.
- D. Acceptance in Part - The Work may be accepted in part by the Owner's Field Representative upon written application by the Contractor, provided the Work offered for acceptance is completed in accordance with this Section.
- E. Any areas which fail to show a "catch" for any reason whatsoever, shall be reseeded at the Contractor's expense until a "catch" is obtained. Damage resulting from erosion, gulleys, washouts or other causes shall be repaired by filling with topsoil, tamping and reseeding by Contractor at his own expense, until final acceptance of the Work.

PART 2.00 PRODUCTS

2.01 MATERIALS

A. TOPSOIL

- 1. The Contractor shall furnish, at his expense, any additional quantities of topsoil to properly install all work as specified herein and as shown on the Drawings.
- 2. Topsoil shall consist of natural loam topsoil, free from subsoil. Topsoil shall be of uniform quality, free from hard clods, stiff clay, hard pan, sods, partially disintegrated stone, or any other undesirable material.

3. Topsoil shall contain at least 6% organic matter as determined by loss of ignition on a moisture-free sample dried in accordance with the current method of the Association of Official Agricultural Chemists. The acidity range shall be pH 5.0 to pH 7.0, inclusive. The mechanical gradation analysis of the soil shall be as follows:

<u>Passing</u>	<u>Retained On</u>	<u>Percentage</u>
1" screen		100
1" screen	¼" screen gravel	Not more than 3
¼" screen	No 100 USS Mesh Sieve (sand)	40 - 60
No. 100 USS Mesh Sieve	(very fine sand, silt and not more 60% clay).	40 - 60

B. LIME

1. Shall be ground limestone (Dolomite) containing not less than eighty-five (85) percent of total carbonates and shall be ground to such a fineness that fifty (50) percent will pass through a 100-mesh sieve and ninety (90) percent will pass through a 20-mesh sieve. Coarser material will be acceptable, provided the specified rates of application are increased proportionately on the basis of quantities passing the 100-mesh sieve.

C. COMMERCIAL FERTILIZER

1. Shall be a complete fertilizer formula (5-10-5) and shall conform to the applicable State Fertilizer laws. It shall be uniform in composition, dry and free flowing, and shall be delivered to the Site in the original, unopened containers, each bearing the manufacturer's guaranteed analysis. Any fertilizer which becomes caked or otherwise damaged, making it unsuitable for use, will not be accepted.

D. WATER

1. The Contractor shall make, at his expense, whatever arrangements necessary to ensure an adequate supply of water to meet the needs of this Contract. He shall also furnish all necessary hose, equipment, attachments and accessories for the adequate irrigation of lawns and planted areas as may be required to complete the Work as Specified.

E. SCREEN

1. Shall be one-half (1/2) inch mesh galvanized hardware cloth.

F. LAWN MATERIAL

1. Grass seed shall be mixed and guaranteed by the Dealer as follows:

Sunny Areas
65% Kentucky Bluegrass Blend
20% Perennial Ryegrass
15% Fine Fescue

Shady Areas

80% Blend of Shade Tolerant Kentucky Bluegrass

20% Fine Fescue

Total weed content shall not exceed 1.5% of the total seed mixture.

PART 3.00 EXECUTION

3.01 INSTALLATION

A. TOPSOIL

1. Upon completion of grading operations for each respective area of Work, the Contractor shall place topsoil to a minimum depth of four (4) inches on all embankments and seed areas, first scarifying the subgrade for a depth of two (2) inches for the bonding of the topsoil with the subsoil. Where embankments are too steep for hand raking or tamping, topsoil may be compacted by mechanical means. Topsoil shall not be spread in a frozen or muddy condition. Topsoil from stockpile shall be raked to remove objectionable and oversized material as directed by Owner's Field Representative.

B. LIME

1. Ground limestone shall be applied, at the rate of 50 pounds to 1000 square feet, to the lawn areas being prepared for seeding. Incorporate limestone into top three (3) inches of the soil at least three (3) days prior to seeding.

C. COMMERCIAL FERTILIZER

1. Commercial fertilizer shall be applied at the rate of 175 pounds per acre of lawn area.

D. SEEDING

1. Immediately before any seed is sown, the topsoil shall be scarified as necessary and shall be raked until the surface is smooth, friable and of a uniformly fine texture. Lawn areas shall be seeded evenly with a mechanical spreader at the rate of 175 pounds per acre of area, lightly raked, rolled with a 200 pound roller, and watered with a fine spray. The method of seeding may be varied at the discretion of the Contractor on his own responsibility to establish a smooth, uniform turf composed of the grasses specified. Retain all seed tags from seed sacks, submit all tags to the Owner's Field Representative for verification of the total amount of seed sown.

E. WATERING

1. The Contractor shall provide necessary watering, fertilizer, mulching, etc., required to establish and maintain seeded areas until same are accepted by the Owner's Field Representative.

END OF SECTION

SECTION 03300

SITE CONCRETE

PART 1.00 - GENERAL

1.01 RELATED DOCUMENTS:

- A. Contract Documents: Work of this Section, as shown or specified, shall be in accordance with the requirements of the Contract Documents.

1.02 SUMMARY:

- A. General: Provide all plant, labor, tools, appliances, equipment, materials and services required for the work indicated on the drawings and specified in this section.
- B. Work Included: The work includes, but is not necessarily limited to, the following:
 - 1. Concrete formwork.
 - 2. Perform the following work in connection with other trades.
 - (a) Set, build-in and grout in anchors, bolts, inserts, blocks, grounds, sleeves and similar items.
 - (b) Build-in and grout door frames, vents, ducts, panel boxes, waterproofing and flashings.
 - (c) Build-in all slots, chases or openings required for the proper installation of the work of other sections. Such work shall be in locations and of dimensions indicated on the Drawings and in accordance with information furnished before the work is laid out at the points affected.

1.03 QUALITY ASSURANCE:

- A. Materials and installed work may require testing and retesting at anytime during progress of work. Tests, including retesting of rejected materials for installed work, shall be done at Contractor's expense.
- B. Concrete work shall strictly adhere to the weather limitations, curing and finishing criteria set forth in this Section of the Project Specifications.

1.04. SUBMITTALS:

- A. Product Data: Submit data for proprietary materials and items, including reinforcement and forming accessories, admixtures, patching compounds, waterstops, joint systems, curing compounds, dry-shake finish materials, and others as requested by Owner's Field Representative.

1.05 PROJECT CONDITIONS:

- A. Protection of Footings Against Freezing: Cover completed work at footing level with sufficient temporary or permanent cover as required to protect footings and adjacent subgrade against possibility of freezing; maintain cover for time period as necessary.
- B. Protect adjacent finish materials against spatter during placement.

PART 2.00 - PRODUCTS

2.01 MATERIALS:

A. Non-Shrink Grout: CRD-C 621, factory pre-mixed grout.

1. Products: Subject to compliance with requirements, provide one of the following:

(a) Metallic

- (1) A.C. HORN, INC.; "Vibrofoil".
- (2) THE BURKE CO.; "Metallic Spec. Grout".
- (3) MASTER BUILDERS.; "Embeco 636".
- (4) SONNEBORN-REXNORD.; "Ferrolith GDS".
- (5) EUCLID CHEMICAL CO.; "Hi-Mod Grout".
- (6) SIKA CHEMICAL CO.; "Kemox G".
- (7) L & M. CONST. CHEMICAL CO.; "Ferrogout".
- (7) GIFFORD-HILL/AMERICAN ADMIXTURES.; "Supreme Plus".

(b) Non-metallic

- (1) MASTER BUILDERS.; "Set Grout".
- (2) SONNEBORN-REXNORD .; "SonogROUT".
- (3) EUCLID CHEMICAL CO.; "Euco-NS".
- (4) GIFFORD-HILL/AMERICAN ADMIXTURES.; "Supreme".
- (5) L & M CONST. CHEMICAL CO.; "Crystex".
- (6) DAYTON SUPERIOR CORP.; "Sure-Grip Grout".
- (7) A.C. HORN, INC.; "Horngrout".
- (8) U.S. GROUT CORP.; "Five Star Grout".;

PART 3.00 - EXECUTION

3.01 INSTALLATION OF EMBEDDED ITEMS:

A. Set and build into work anchorage devices and other embedded items required for other work that is attached to, or supported by, cast-in-place concrete. Use setting drawings, diagrams, instructions, and directions provided by suppliers of items to be attached thereto.

END OF SECTION

SECTION 15050

WATER TREATMENT SYSTEM PIPING AND ELECTRICAL

PART 1- GENERAL

1.01 Work Included

Furnish, install and test all specified piping, electrical, and electronic controls within the existing pump house including the following items not otherwise covered in other specifications:

- A. 25,000 Gallon underground atmospheric tank
- B. Two booster pumps with variable frequency drives
- C. Bladder tank
- D. Interior pipe connections
- E. Two insertion valves
- F. Electronic controls
- G. Well casing extension
- H. Ball valves
- I. Sample ports

1.02 Related Work

- A. Section 02220 Selective Demolition
- B. Section 02510 Underground Water Piping
- C. Section 03300 Site Concrete

1.03 Quality Assurance

A. General

The items covered by these specifications shall be furnished by fully qualified manufacturers experienced in the fabrication, casting and manufacture of the pipe materials specified herein. The pipe and fittings shall be designed, fabricated and installed in accordance with the best practice of the trade and the standards specified herein. At the Engineer's discretion, a reference list of previous installations of the proposed product will be furnished to verify the integrity of the manufactured product.

B. Shop Tests

The pipe and fittings covered by these specifications shall be tested in accordance with the ASTM, ANSI, and/or AWWA standards specified herein.

C. Field Tests

Shall be performed as specified herein and in accordance with the General Conditions and Division 1.

D. Letters of Compliance

In accordance with the submittals paragraph, the Contractor shall obtain and submit certified statements that the pipe, joints, fittings and linings comply with the requirements of the applicable standards specified herein (AWWA, ANSI, ASTM) for fabrication and testing.

E. Substitutions

In the event that the items specified in this section cannot be delivered in time to allow for completion of the work within the time specified by the Contract Documents, the Contractor may request that an item having equivalent specification may be substituted in the place of the item called for in this Contract. The Engineer shall review the schedule impact and the proposed replacement suggested by the Contractor. The Engineer in his sole discretion, may approve the substitution. In the alternative, the parties may adjust the substantial completion date under the contract or leave the contract unchanged.

1.04 Submittals

A. General

In accordance with the procedures and requirements set forth in the General Conditions and Division 1 the Contractor shall obtain manufacturer and submit the following data:

1. Shop Drawings
2. Certified Letters of Compliance

No material furnished under this specification shall be shipped to the job site until all submittals have been approved.

Each submittal shall be identified as specified in the General Conditions and Division 1.

B. Shop Drawings

Each submittal shall be complete in all aspects incorporating all information and data listed herein and all additional information required to evaluate the proposed item's compliance with the Contract Documents. Partial or incomplete submissions shall be returned to the Contractor disapproved without review.

Data to be submitted shall include, but not be limited to:

1. Catalog Data consisting of specifications, illustrations and a parts schedule that identifies the materials to be used for the various piping components and accessories. The illustrations shall be in sufficient detail to serve as a guide for assembly and disassembly.

2. Complete layout and installation drawings with clearly marked dimensions. Piece numbers which are coordinated with the tabulated layout schedule shall be clearly marked. Scale and size of the drawings shall conform to the specifications in the General Conditions and Division 1.

C. Certified Letters of Compliance

The Contractor shall obtain from the manufacturer and submit to the Engineer copies of certified letters of compliance in accordance with the General Conditions and Division 1.

PART 2 - MATERIALS

2.01 25,000-Gallon Underground Atmospheric Tank

- A. The 25,000-gallon steel underground atmospheric water tank will be model UG/PW25126 as manufactured by Mass Tank, and as modified per the detail on the Drawings.

2.02 Booster Pumps with Variable Frequency Drive

- A. The two (2) water booster pumps with variable frequency drive will be model 22SV4GJ4F60 as manufactured by Goulds.

2.03 Bladder Tank

- A. The bladder tank will have a capacity of 34 gallons and will be model Well-X-Trol WX-403C as manufactured by Amtrol.
- B. Bladder tank will be installed in the location of the gas power pump after its removal.

2.04 Insertion Valves

- A. Two (2) 4" insertion valves will be model EZ Valve as manufactured by Advance Valve Technologies, Inc.
- B. Insertion valves will be installed in the existing piping to allow isolation of the parts of the system during construction

2.05 Electronic Controls

- A. Enclosure model 5412 ES363012 as manufactured by EXM.
- B. Programmable logic controller model V350-35-R34 as manufactured by Unitronics.
- C. Tank level transducer to be installed in the 25,000-gallon atmospheric water tank model Levelgage as manufactured by Keller America, Inc.
- D. Breakers, switches, power supplies, lights, etc. as specified on the Drawings and in the Engineer's Report necessary.

2.06 Well Casing Extension

- A. Well casing to be extended either by welding or threading and shall be watertight. Method

of extension to be approved by Town Engineer prior to construction.

2.07 Miscellaneous Items

- A. All remaining plumbing and electrics items necessary for a complete and properly functioning installation and as specified on the Drawings and in the Engineer's Report.

PART 3 - EXECUTION

3.01 Installation

A. General

1. The Contractor shall furnish all labor, tools, materials, and equipment necessary for installation of the water system improvements including plumbing and electrical.
2. Any deviations from the Drawings and Engineer's Report must be reviewed and approved by the Engineer prior to construction.
3. Piping and electrical components shall be attached and installed in accordance with the respective manufacturers' recommendations.
4. After the complete installation of the system, it will be tested by the Contractor and demonstrated to the Town Engineer and operator of the system for their approval.
5. Substantial Completion of the Work will occur when the Dutchess County Department of Health approves the work for use.

B. Joints

1. Flanged Joints

- a. Shall be made up with full face gaskets as specified in the piping paragraphs.
- b. Shall have the flange faces bearing uniformly on the gaskets.
- c. Shall have the flanges drawn together uniformly until the joint is tight.
- d. No washers shall be permitted for the bolt and nut assemblies.
- e. The length of the bolts shall be uniform and in accordance with the standards specified herein. The bolt's maximum projection beyond the end of the nut shall be 0.25 inch nor shall the bolt fall short of the end of the nut.

2. Threaded Joints

- a. All threads shall be clean, machine cut and all pipe shall be reamed before erection.

- b. Taps and dies shall be cleaned, sharpened and in good condition.
- c. All threaded joints shall be made tight with teflon tape.
- d. After having been set up a joint shall not be backed off unless the joint is broken, the threads cleaned and new tape is applied.

4. Solvent Cemented Joints

- a. Shall be made up in accordance with ASTM D2855 and the manufacturers' recommendations.
- b. The Contractor is advised to handle the solvent cements in accordance with ASTM F 402.

3.02 Flushing and Testing

- A. Pressure and leakage testing for the water system is specified on the Drawings and in the Engineer's Report.

3.03 Disinfection

- A. Disinfection procedures for the water system are specified on the Drawings and in the Engineer's Report.

END OF SECTION

ATTACHMENT A
Contract Documents

**AGREEMENT
BETWEEN OWNER AND CONTRACTOR**

DOVER RIDGE WATER SUPPLY – WATER SYSTEM IMPROVEMENTS

This agreement entered into this _____ day of _____, 2019 by the Dover Ridge Water District [Town of Beekman], New York, acting by and through the Town Board, hereinafter referred to as the Owner, and _____, hereinafter called the Contractor.

WITNESSETH:

That the Owner and the Contractor, in consideration of the mutual covenants hereinafter set forth, agree as follows:

1. The drawings and specifications for the Dover Ridge Water Supply – Water System Improvements, as well as the Non-Collusion Certification and other general requirements shall form part of this contract and the provisions thereof shall be as binding upon the parties as if they were fully set forth.

2. The Contractor for and in consideration of the payment of payments herein specified and agreed to by the Owner hereby agrees to furnish and deliver all the materials and to do and perform all the work specified in the proposal at the price bid by said Contractor for the sum of _____ dollars and _____ cents (\$ _____) and in accordance with the aforementioned documents issued.

3. The Contractor further agrees that all of the said work shall be done and performed in the best workmanlike manner and that prompt payment will be made in full for labor and materials used in the work and that all said labor and materials shall be in strict accordance with the Contract documents and shall be subject to the inspection and approval of the Engineer.

4. Contractor agrees to commence work immediately with substantial completion of the work be accomplished by November 15, 2019. The parties acknowledge that time is of the essence and that Owner will suffer a financial loss if work is not completed by this date or any agreed extension. The parties further acknowledge that it may be difficult or impossible to ascertain the amount of actual damages incurred if the Contractor fails to complete the work within said time. Therefore, the Owner and Contractor agree that the liquidated damages in the amount of Five Hundred Dollars per day shall be charged against amounts due under the contract for each day that substantial completion is delayed after November 15, 2019, unless the parties otherwise agree in writing.

5. Unless otherwise agreed to by the parties, the first payment under the contract payment shall be made after substantial completion of the work and acceptance by the Design Engineer, the Town's Engineer and Town Board.

6. This agreement shall bind the successor, assigns and representatives of the parties thereto.

IN WITNESS WHEREOF, this agreement has been duly executed by the Owner and Contractor on the day and year first written above.

() COUNTY _____
() State of New York
() BY: _____
() (NAME)
() _____
() CONTRACTOR
() CORPORATE SEAL

()
()
()
() BY _____
() SUPERVISOR
() TOWN OF BEEKMAN
()
() TOWN SEAL

ACKNOWLEDGEMENT OF THE TOWN OF BEEKMAN

STATE OF NEW YORK)
) ss.:
COUNTY OF DUTCHESS)

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(are) subscribed to the within instrument and acknowledged to me the 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.

Notary Public

NON-COLLUSION CERTIFICATION PURSUANT TO GML 103-d

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; and
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.

A bid shall not be considered for award nor shall any award be made where 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 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 designee, determines that such disclosure was not made for the purpose or 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.

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.

Subscribed to under penalty of perjury under the laws of the State of New York, this _____ day of _____, 20____ as the act and deed of said corporation or partnership.

IF BIDDER(S) (ARE) A PARTNERSHIP, COMPLETE THE FOLLOWING:

NAMES OF PARTNERS OR PRINCIPALS

LEGAL RESIDENCE

IF BIDDER(S) (ARE) A CORPORATION, COMPLETE THE FOLLOWING:

NAME	LEGAL RESIDENCE
_____ President:	_____
_____ Secretary:	_____
_____ Treasurer:	_____
_____ President:	_____
_____ Secretary:	_____
_____ Treasurer:	_____
_____	_____

BY

Potential Contractor _____

Address _____

Telephone _____ Title _____

If applicable, Responsible Corporate Officer

Name _____ Title _____

Signature X _____

Joint or combined bids by companies or firms must be certified on behalf of each participant.

Legal name of person, firm or corporation

By _____
Name

Title

Address

Street

City _____
State _____
Zip Code

Signature X _____

Legal name of person, firm or corporation

By _____
Name

Title

Address

Street

City _____
State _____
Zip Code

Signature X _____

Insurance Requirements for Contractors working in The Town of Beekman

Governing Law:

This contract shall be governed by and construed according to the laws of the State of New York. 4

Indemnification:

The Contractor shall indemnify and hold harmless the Town and its representatives against any and all liabilities, claims, and costs of whatsoever kind and nature for injury or death of any persons and for loss or damage to property occurring in connection with the performance of this contract.

Permits and Licenses:

The contractor shall, at its own expense, procure and keep in effect, all necessary permits and licenses required for its performance under this contract.

Insurance Requirements:

The contractor shall procure, maintain and provide evidence of the following minimum insurance coverage during the life of this contract, in such form and with such carriers as approved by the Town, at the contractor's expense. In addition, it is the responsibility of the contractor to see that any subcontractors utilized carry similar coverage. Limits specified below do not limit the obligation of the contractor or their insurers.

Town of Beekman, its agents and affiliates, shall be named as additional insured's on a primary and non-contributory basis on both Premises and Products Completed Operations Liability by policy endorsement. A per job site aggregate endorsement and a waiver of subrogation endorsement shall also apply.

INSURANCE SPECIFICATIONS

- 1.0. **Required Insurance.** The following insurance coverages are required to be maintained by the Contractor during the terms of the Contract, proof of which shall be provided to the Town of Beekman, 4 Main Street, Poughquag, NY 12570.
 - 1.1. Worker's Compensation Statutory per New York State law without regard to jurisdiction, covering all operations and all locations. (See Section B.1, below)
 - 1.2. Employer's Liability Statutory (See Section B.2, below)
 - 1.3. Commercial General Liability CG 00 01 (ed. 10/02) or equivalent (See Section B.3, below) Combined Single Limit - Bodily Injury and Property Damage

- \$1,000,000 per occurrence
- \$1,000,000 Personal and Advertising Injury Limit
- \$1,000,000 products/completed operations aggregate
- \$2,000,000 general aggregate
- \$25,000 maximum deductible

1.4. Automobile Liability: CA 00 01 (ed. 6/92) or equivalent. (See Section B.4, below) Combined Single Limit - Bodily Injury and Property Damage

- \$500,000 each occurrence

The following coverage must be provided:

(X) Comprehensive Form (X) Owned (X) Hired (X) Non-
Owned

1.5. Professional liability insurance coverage with an annual aggregate of not less than \$2,000,000 per occurrence. (See Section B.5, below)

2.0. General Provisions Applicable to Insurance Coverages:

2.1 All insurance coverage's must be from an A.M. Best rated "secured" (B+-A++), New York State admitted insurer

2.2 All certificates of insurance must provide that the policy or policies shall not be changed or canceled until at least thirty (30) days prior written notice has been given to the Town Clerk of the Town of Beekman.

2.3 All policies and certificates of insurance of the Vendor shall contain the following clauses:

2.3.1 The Town of Beekman is named as an additional insured and as Certificate Holder. Insurers shall have no right of recovery or subrogation against the Town of Beekman (including its agents and agencies), it being the intention of the parties that the insurance policies so affected shall protect both parties and be primary coverage for any and all losses covered by the above described insurance.

2.3.2 The Clause "other insurance provisions" in a policy in which the Town of Beekman is named as an additional insured, shall not apply to the Town of Beekman.

2.3.3 The insurance companies issuing the policy or policies shall have no recourse against the Town of Beekman (including its agents or

agencies) for payment of any premiums or for assessments under any form of policy.

- 2.4 Any and all deductibles in the above described insurance policies shall be assumed by and be for the account of, and at the risk of the successful bidder.
- 2.5. These provisions are applicable to both the insurance coverages required to be maintained by Successful Bidder, and the insurance coverages required to be maintained by any consultant/contractor/subcontractor engaged or retained by the Successful Bidder. In each case, the reference to "Successful Bidder" shall mean the party to whom the Proposal was awarded and is required to maintain insurance coverage, and the reference to "Contract" shall mean either the Professional Services Contract or other Agreement of the contract pursuant to which the consultant, Successful Bidder or subcontractor is providing materials or services (in the case of a consultant, contractor or subcontractor) specified in the Proposal documents, or as may be amended by mutual agreement. As used herein, any reference to the "TOWN" shall mean the Town of Beekman, with its offices located at 4 Main St, Poughquag, NY 12570.

2.5.1. Worker's Compensation Insurance. Before performing any work on the Contract, the Successful Bidder shall procure Worker's Compensation Insurance in accord with the laws of the State of New York on behalf of all employees who are to provide labor or service under the contract. One certificate of such insurance or authority for self-insurance shall be furnished to the TOWN.

2.5.2. Employer's Liability Insurance. Before performing any work on the Contract, Successful Bidder shall procure Employer's Liability Insurance affording compensation for all employees providing labor or services for whom worker's compensation coverage is not a statutory requirement. Certificates confirming renewals of insurance shall be presented not less than thirty (30) days prior to the expiration date of coverage until all operations under the subject contract are deemed completed. One certificate of such insurance or authority for self-insurance shall be furnished to the TOWN.

2.5.3. Commercial General Liability. Before commencing work on the Contract, the Successful Bidder shall procure a commercial general liability insurance policy issued by a New York admitted carrier through a New York Licensed resident broker in the Successful Bidder's name and naming the TOWN as an additional insured (using ISO endorsement CG 20 10) and endorsed to cover liability assumed by the Successful Bidder under the indemnity provisions of the Contract. This insurance policy must be maintained during the life of the contract and shall protect the

TOWN, the Successful Bidder and his/her subcontractors performing work on the Contract from Claims for property damage and/or bodily injury which may arise from operations under the contract, whether such operations are performed by him/herself or anyone directly or indirectly employed by him/herself. One certificate of such insurance, together with copies of all endorsements as pertain to the requirements of the subject contract, shall be furnished to the TOWN of Beekman at the address shown above. The policy shall contain no exclusions or endorsements which are not acceptable to the TOWN and shall be of a form and by an insurance company acceptable to the TOWN.

2.5.3.1 Commercial General Liability - Endorsements and Exclusions. The following endorsements are required to be made on the policy:

(i) Notice: shall be addressed to the Town of Beekman, 4 Main St, Poughquag, N.Y. 12570.

(ii) Notice of Cancellation of Policy: The Policy shall not be canceled, terminated, modified or changed by the Company unless thirty (30) days' prior written notice is sent to Town of Beekman.

2.5.4. Automobile Liability. The Successful Bidder will provide the TOWN with evidence of insurance covering all owned, non-owned and hired vehicles to be used in connection with the contract. If on a "schedule autos" basis, Successful Bidder shall present the schedule of insured autos, including the vehicles to be used for operations under the Contracts.

2.5.5. Professional Liability Insurance. The Consultant shall, at its sole expense, acquire, continuously maintain during the period in which the Consultant is performing services, and provide the Town with acceptable proof of professional liability insurance coverage with an annual aggregate of not less than \$2,000,000 per occurrence, covering acts, errors, or omissions of a professional nature committed or alleged to be committed by the Consultant or any of its subcontractors as a part of its performance of professional Legal services.

2.5.6 Insurance Agreement:

2.5.6.1 The Successful Bidder is required to obtain and to maintain insurance outlined herein.

2.5.6.2. The insurance required for the Contract must be on forms acceptable to the TOWN and offered by insurers acceptable to the TOWN. The insurance for all New York Contractors must be issued by New York authorized carriers except as approved by the Town Attorney for the Town of Beekman and in any event must comply with all requirements of New York State laws and regulations and meet the standards of the forms set forth in Section 3.0 above. Insurance for non-New York Contractors must be through insurers and sureties admitted and authorized in the state of headquarters of the Contractor, have an A.M. best rating of A or better and meet the standards for forms set forth in the above. Additionally, all requirements as to forms set forth in New York State law and regulations apply without regard to jurisdiction as standards of coverage.

2.5.6.3. Where circumstances warrant, the TOWN may, at its discretion subject to acceptance by the Town Attorney, accept letters of credit or custodial accounts in lieu of specific insurance requirements. The letter of credit must be on form prescribed by Town Attorney for the Town of Beekman and payable at an office of a bank approved by the TOWN.

2.5.6.4. The Successful Bidder agrees that all insurance contributing to satisfaction of the insurance requirements set out in this Exhibit shall not be modified, terminated, or canceled by the Successful Bidder without prior written approval of the TOWN.

2.5.6.5. The Successful Bidder shall be solely responsible for payment of all deductibles and premiums for insurance contributing to satisfaction of the requirements of this Exhibit and shall be solely responsible for the payment of all deductibles to which such policies are subject, whether or not the TOWN is an insured under the policy.

2.5.6.6. Claims made policies will be accepted only for professional liability and such other risks as are authorized by the New York State Insurance Department. All such policies contributing to satisfaction of the requirements of the Exhibit shall have an extended reporting period option or automatic coverage of not less than two years. If provided as an option, the Successful Bidder agrees to purchase the extended reporting period on cancellation or termination unless a new policy is effected with a retroactive date, including at least the last policy year.

2.5.6.7. The Successful Bidder shall promptly notify the TOWN within 24 hours of any accidents arising in the course of operations under the contract causing bodily injury or property damage and shall cooperate fully with the TOWN in providing all such records and information as may be requested by the Attorney representing the Town of Beekman in anticipation of claims against the TOWN which may arise from the accident. A complete report of the accident shall be made within five (5) business days on such form as may be provided by the Attorney representing the Town of Beekman.

2.5.6.8. The Successful Bidder or his Attorney may apply to the TOWN for approval of higher deductible based on financial capacity and quality of the carrier affording coverage.

2.5.7. Forms of Insurance Certificates. Insurance certificates shall conform to the following:

2.5.7.1. Certificates must be issued by the insurance company using the "ACCORD" forms issued by its brokers, except for Worker's Compensation coverage where the Successful Bidders must provide Form C-105.2 issued by an insurance carrier or Form U-26.3 issued by the New York State Insurance Fund.

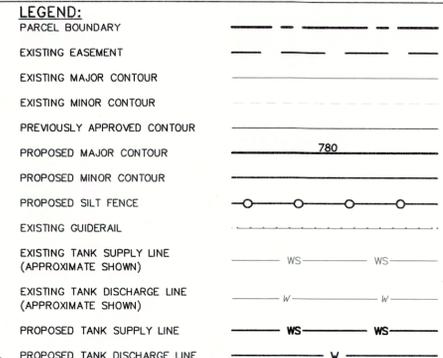
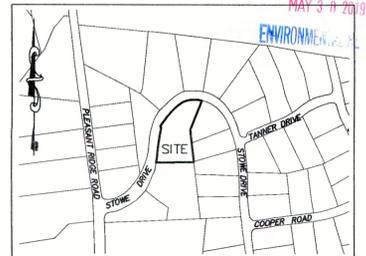
2.5.7.2. Certificates must unconditionally grant to the TOWN thirty (30) calendar days' notice of cancellation or non-renewal. "Endeavor" or other qualifying language is not acceptable.

2.5.7.3. All additional insureds required by this Insurance Specification shall be listed as such.

2.5.7.4. The authorized representative of the insurance company executing the certificate(s) must indicate his/her title.

2.5.7.5. Original executed certificates must be delivered to TOWN.

ATTACHMENT B
Site/Civil Drawings



MAP REFERENCE NOTES:

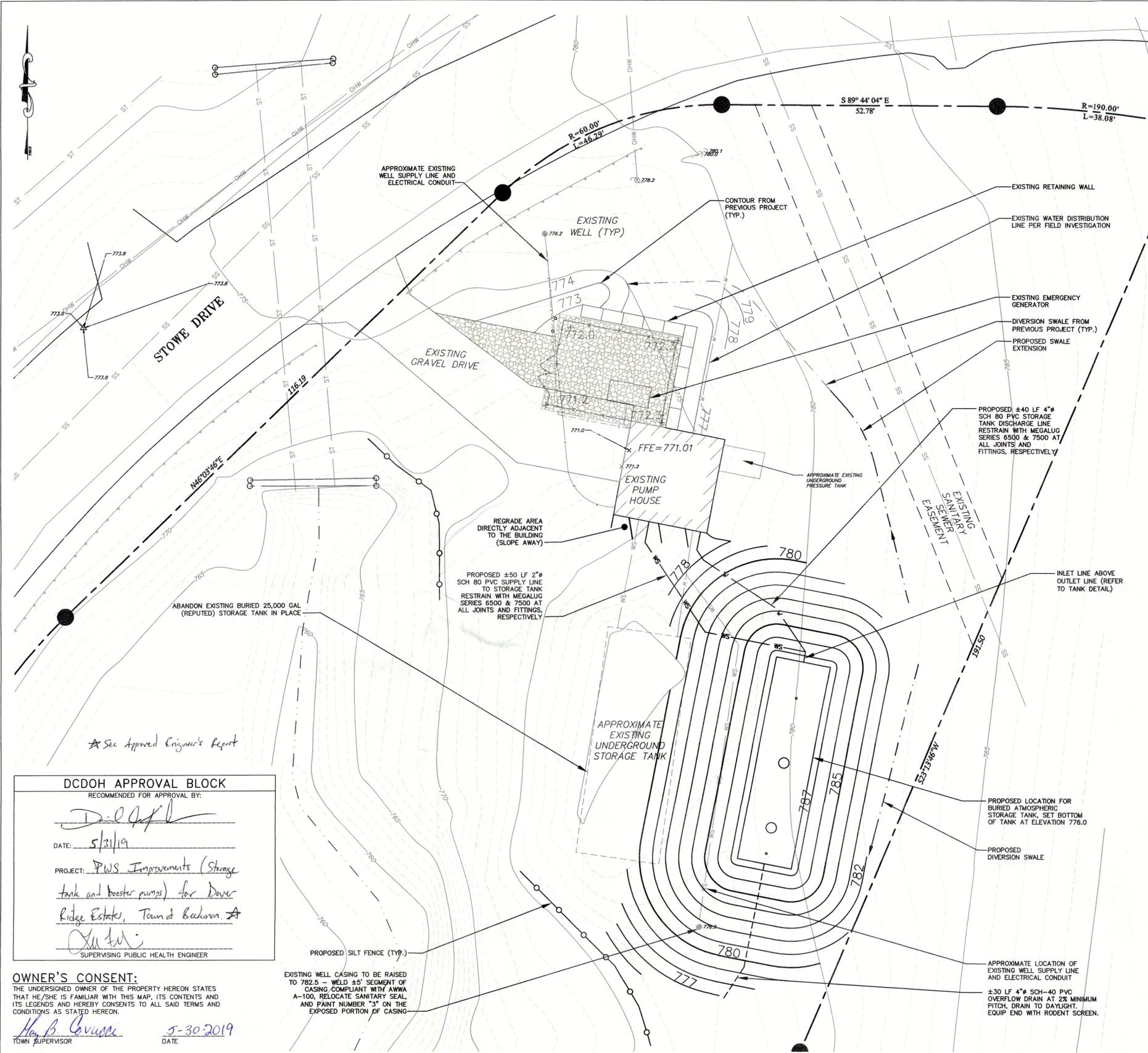
- 1. BASE MAPPING PER A SURVEY ENTITLED "BOUNDARY AND TOPOGRAPHIC SURVEY OF PARCEL 1 FM 6921", DATED 11/23/2015, COMPLETED BY TEC LAND SURVEYING.
2. PREVIOUS IMPROVEMENTS FOR THE EMERGENCY GENERATOR ARE SHOWN PER THE DESIGN PLAN.

GENERAL NOTES:

- 1. CONTRACTOR TO VERIFY LOCATION OF ALL WATER LINES AND ELECTRICAL CONDUIT PRIOR TO ANY EXCAVATION ACTIVITY.
2. CONTRACTOR TO COORDINATE EFFORTS AND SCHEDULE WITH THE OPERATOR OF THE SYSTEM - VRI ENVIRONMENTAL SERVICES (845) 677-3839; OWNER OF THE SYSTEM - TOWN OF BEEKMAN CONTACT SUPERVISOR COVUCCI (845) 724-5300, AND THE TOWN'S CONSULTANT ENGINEER - HUDSON LAND DESIGN PROFESSIONAL ENGINEERING, P.C. (845) 440-6926.

CONSTRUCTION PHASING:

- 1. INTERIOR PLUMBING - WELL SUPPLY LINES
1.1. TURN OFF ATMOSPHERIC PUMP POWER
1.2. CLOSE BALL VALVE ON SUPPLY LINE TO EXISTING ATMOSPHERIC TANK
1.3. EXTEND EXISTING 2" PVC APPROXIMATELY 3 FEET (REFER ALSO TO PHOTO IN ENGINEER'S REPORT). MOVE THE EXISTING METER TO ALLOW FOR PLACEMENT OF THE PROPOSED CHECK VALVE AND THE TEE THAT WILL SERVE TO SUPPLY THE NEW ATMOSPHERIC STORAGE TANK PRIOR TO THE EXISTING BALL VALVE TO THE EXISTING ATMOSPHERIC STORAGE TANK THE NEW LINE FROM THE TEE SHALL BE EQUIPPED WITH A BALL VALVE THAT WILL BE CLOSED UNTIL THE NEW TANK IS PLACED IN SERVICE. THE EXISTING BALL VALVE IS TO REMAIN OPEN UNTIL THE NEW TANK IS IN SERVICE.
1.4. REMOVE THE EXISTING PRESSURE RELIEF VALVE ON THE WELL #3 SUPPLY LINE AND REPLACE WITH STRAIGHT SECTION OF PIPE.
1.5. THE INTERIOR OF ALL PIPES AND FITTINGS SHALL BE SWABBED OR SPRAYED WITH 1% HYPOCHLORITE SOLUTION BEFORE THEY ARE INSTALLED IN ACCORDANCE WITH AWWA C-651.
1.6. OPEN BALL VALVE ON SUPPLY LINE TO EXISTING ATMOSPHERIC STORAGE TANK
1.7. TURN ON WELL PUMP POWER
2. INTERIOR PLUMBING - TANK DISCHARGE LINE - TO BE COMPLETED DURING OFF-PEAK HOURS ONLY
2.1. RUN BOOSTER PUMP TO CHARGE EXISTING HYDRO-PNEUMATIC TANK TO 82 PSI (NORMAL CUTOFF PRESSURE). PRESSURIZE VIA THE EXISTING AIR COMPRESSOR IF PRESSURE DROPS TO BELOW 70 PSI (NORMAL CUT ON PRESSURE)
2.2. TURN OFF POWER TO EXISTING BOOSTER PUMPS
2.3. INSTALL INSERT VALVES ON THE EXISTING 4" TANK DISCHARGE LINE WITHIN THE FIRST FOOT OF PIPE AS IT ENTERS THE PUMP HOUSE, AND WITHIN THE LAST FOOT OF PIPE (PRIOR TO THE EXISTING HYDRO-PNEUMATIC TANK)
2.4. CLOSE NEW INSERT VALVES TO PREVENT WATER ENTERING THE ISOLATED PIPE SECTION FROM EXISTING HYDRO-PNEUMATIC TANK (AND DISTRIBUTION) OR FROM EXISTING ATMOSPHERIC STORAGE TANK
2.5. INSTALL NEW SMOOTH-WALLED SAMPLING TAP ON DISCHARGE SIDE OF BOOSTER PUMPS (TO BE INSTALLED ON BACK WALL A MINIMUM OF 3 FEET ABOVE FLOOR FOR TREATED WATER SAMPLING POINT. PROVIDE SIGN ABOVE SAMPLING TAP INDICATING THAT A MINIMUM CHLORINE RESIDUAL OF 0.5 MG/L MUST BE MAINTAINED AT THE SAMPLING POINT LOCATION TO MAINTAIN 4-LOG INACTIVATION).
2.6. INSTALL NEW 4" DISCHARGE PIPE TO CONNECT TO THE NEW ATMOSPHERIC STORAGE TANK IN THE FUTURE
2.6.1. INSTALL DISCHARGE STUB WITH BALL VALVE, BALL VALVE, AND RAW SAMPLING POINT ON THE NEW LINE FROM THE NEW ATMOSPHERIC STORAGE TANK (BOTH VALVES TO BE CLOSED AT THIS POINT)
2.7. THE INTERIOR OF ALL PIPES AND FITTINGS SHALL BE SWABBED OR SPRAYED WITH 1% HYPOCHLORITE SOLUTION BEFORE THEY ARE INSTALLED IN ACCORDANCE WITH AWWA C-651.
2.8. OPEN BOTH NEW INSERT VALVES
2.9. TURN ON POWER TO EXISTING BOOSTER PUMPS
3. NEW ATMOSPHERIC STORAGE TANK INSTALLATION - TO BE COMPLETED WITH TEMPERATURES ABOVE FREEZING
3.1. THE CONTRACTOR SHALL COORDINATE ACCESS WITH THE MANUFACTURER DELIVERING THE TANK, AND THE NEED FOR CRANES OR OTHER MACHINERY TO SET THE TANK, NOTING EXISTING OVERHEAD WIRE LOCATION AND HEIGHT
3.2. PRIOR TO THE TANK ARRIVING AT THE SITE, THE CONTRACTOR SHALL STRIP THE TOPSOIL WITHIN THE LIMITS OF PROPOSED GRADING AND SHALL STOCKPILE THE SOIL ON SITE
3.3. THE EXISTING WELL #3 CASING SHALL BE EXTENDED ±5 FEET ABOVE EXISTING (NEW SANITARY SEAL TO BE AT ELEVATION 782.5 OR HIGHER TO PROVIDE MINIMUM 1-FOOT ELEVATION ABOVE FINAL GRADE)
3.3.1. CASING EXTENSION MAY BE WELDED OR THREADED, BUT IN EITHER CASE SHALL BE MADE WATER-TIGHT
3.4. INSTALL DIVERSION SWALES PER PLAN
3.5. INSTALL SILT FENCE TO PROTECT SITE NEAR EXPOSED SOILS
3.6. EXCAVATE TANK LIMITS TO ELEVATION 775
3.7. COMPACT SUBGRADE WITHIN TANK LIMITS TO 95% PROCTOR
3.8. REMOVE ANY AREAS OF SOFT SOILS ENCOUNTERED AND REPLACE WITH SUITABLE COMPACTED MATERIAL AS ORDERED BY THE ENGINEER
3.9. PROVIDE PEA GRAVEL BED
3.10. SET NEW ATMOSPHERIC STORAGE TANK LEVEL
3.11. EXCAVATE NEW TANK SUPPLY LINE TRENCH AND DISCHARGE LINE TRENCH
3.12. PREPARE BUILDING PENETRATIONS FOR NEW TANK SUPPLY AND DISCHARGE LINES
3.13. INSTALL NEW SUPPLY LINE, DISCHARGE LINE AND OVERFLOW LINE, INCLUDING WIRING BETWEEN TANK AND PUMP HOUSE
3.14. THE NEW SUPPLY LINE AND TANK DISCHARGE LINE SHALL BE PRESSURE AND LEAKAGE TESTED, AND DISINFECTED IN ACCORDANCE WITH THE PROCEDURES SHOWN ON SHEET CD-3
3.15. MAKE CONNECTIONS TO NEW SUPPLY AND DISCHARGE POINTS FROM PHASES 1 & 2, RESPECTIVELY. THE INTERIOR OF ALL PIPES AND FITTINGS SHALL BE SWABBED OR SPRAYED WITH 1% HYPOCHLORITE SOLUTION BEFORE THEY ARE CONNECTED IN ACCORDANCE WITH AWWA C-651.
3.16. PARGE BUILDING PENETRATIONS WITH CEMENT
3.17. BACKFILL SUPPLY AND DISCHARGE LINE TRENCHES
3.18. BUILD UP SOIL AROUND NEW ATMOSPHERIC STORAGE TANK PER GRADING SHOWN TO WITHIN 4" OF FINAL GRADE
3.19. USE STOCKPILED TOPSOIL TO FINISHED GRADE (SUPPLEMENT WITH ADDITIONAL IMPORT AS NECESSARY)
3.20. EXTEND OR CUT OVERFLOW PIPE BASED ON FINAL GRADE AND PROVIDE RODENT SCREEN ON PIPE TERMINATION
3.21. SEED AND MULCH EXPOSED SOIL AREAS
3.22. THE NEW TANK SHALL BE DISINFECTED IN ACCORDANCE WITH THE PROCEDURES SHOWN ON SHEET CD-3. THE TANK DISCHARGE STUB IN THE PUMP HOUSE SHALL BE USED TO FLUSH THE TANK OF THE HEAVILY CHLORINATED WATER. THE SOURCE OF WATER TO FLUSH THE TANK OF THE HEAVILY CHLORINATED WATER WILL BE FROM THE POTABLE WATER SOURCE. PARTIALLY OPEN NEW BALL VALVE FROM WELL SUPPLY LINE THAT SERVES THE NEW ATMOSPHERIC STORAGE TANK TO SLOWLY FILLING THE NEW TANK AND FLUSH THE HEAVILY CHLORINATED WATER OUT OF THE DISCHARGE STUB LOCATED IN THE PUMP HOUSE. FOR ALL DISCHARGED WATER, THE CONTRACTOR SHALL INTRODUCE A REDUCING AGENT TO REDUCE CHLORINE LEVELS TO AS CLOSE TO 0.0 MG/L AS POSSIBLE.
3.23. PULL SAMPLES FROM THE NEW SAMPLING POINT ON THE NEW TANK DISCHARGE LINE. TWO OR MORE SUCCESSIVE SETS OF SAMPLES, TAKEN AT 24-HOUR INTERVALS, SHALL BE SATISFACTORY (NEGATIVE RESULT) FOR TOTAL COLIFORM
3.24. REMOVE SILT FENCE 80% OF THE DISTURBED AREA ESTABLISHING VEGETATION
4. TRANSITION TO NEW ATMOSPHERIC STORAGE TANK
4.1. CONTINUE TO FLUSH THE TANK USING THE PARTIALLY OPEN NEW BALL VALVE FROM WELL SUPPLY LINE THAT SERVES THE NEW ATMOSPHERIC STORAGE TANK. KEEP BALL VALVE IN THE EXISTING ATMOSPHERIC STORAGE TANK OPEN. THE EXISTING BALL VALVE ON THE NEW TANK DISCHARGE LINE IN THE PUMP HOUSE SHALL REMAIN CLOSED DURING THIS OPERATION (ISOLATED FROM THE DISTRIBUTION).
4.2. MONITOR WATER LEVEL IN NEW TANK (OBSERVE LEVELS THROUGH MANWAY). WHEN WATER IS TO NEAR HIGH LEVEL BOOSTER PUMP CUTOFF LEVEL, CLOSE THE BALL VALVE IN THE PUMP HOUSE THAT FEEDS THE NEW ATMOSPHERIC STORAGE TANK.
4.3. INSTALL NEW CONTROL PANEL AND ESTABLISH WIRING IN PREPARATION FOR TRANSITION TO NEW CONTROLS
5. INSTALL NEW BOOSTER PUMPS - TRANSITION NEW SYSTEM INTO OPERATION - TO BE COMPLETED DURING OFF-PEAK HOURS ONLY
5.1. UPON SUCCESSIVE SATISFACTORY MICROBIOLOGICAL SAMPLING RESULTS, PREPARE TO INSTALL NEW BOOSTER PUMPS. NOTICE ALL USERS THAT THERE MAY BE A BRIEF DOWNTIME A MINIMUM 24 HOURS IN ADVANCE OF WORK COMMENCING. THE SYSTEM OPERATOR IS TO COORDINATE PROPER NOTIFICATION WITH THE HEALTH DEPARTMENT AND TOWN OF BEEKMAN TO THE RESIDENTS FOR THE SYSTEM CHANGE OVER PERIOD.
5.2. RUN EXISTING BOOSTER PUMP TO CHARGE EXISTING HYDRO-PNEUMATIC TANK TO 82 PSI (NORMAL CUTOFF PRESSURE)
5.3. TURN OFF POWER TO EXISTING BOOSTER PUMPS
5.4. CLOSE THE INSERT VALVES THAT WERE INSTALLED IN PHASE 2
5.5. REMOVE THE EXISTING GAS DRIVEN BACKUP BOOSTER PUMP AND INSTALL THE NEW BLADDER TANK BY CONNECTING TO THE PREVIOUS DISCHARGE LINE. CONFIGURE PER THE SCHEMATIC LAYOUT
5.6. REMOVE THE EXISTING TWO BOOSTER PUMPS AND REPLACE WITH NEW VARIABLE FREQUENCY DRIVE BOOSTER PUMPS. UTILIZE EXISTING INTAKE AND DISCHARGE LINES, AND SUPPLEMENT NEW PIPING PER THE SCHEMATIC LAYOUT
5.7. THE INTERIOR OF ALL PIPES AND FITTINGS SHALL BE SWABBED OR SPRAYED WITH 1% HYPOCHLORITE SOLUTION BEFORE THEY ARE INSTALLED IN ACCORDANCE WITH AWWA C-651.
5.8. CONNECT NEW WELL AND BOOSTER CONTROLS
5.9. OPEN INSERT VALVE ON DISCHARGE SIDE. KEEP INSERT VALVE ON EXISTING ATMOSPHERIC STORAGE TANK CLOSED.
5.10. OPEN BALL VALVE FROM NEW ATMOSPHERIC STORAGE TANK
5.11. OPEN BALL VALVE FROM WELL SUPPLY TO NEW ATMOSPHERIC STORAGE TANK
5.12. CLOSE BALL VALVE TO EXISTING ATMOSPHERIC STORAGE TANK
5.13. CLOSE GATE VALVE TO EXISTING HYDRO-PNEUMATIC TANK
5.14. POWER CONTROLS ON - PLACE SYSTEM INTO OPERATION
5.15. PULL SAMPLES DOWNSTREAM OF ALL WORK PERFORMED. TWO OR MORE SUCCESSIVE SETS OF SAMPLES, TAKEN AT 24-HOUR INTERVALS, SHALL BE SATISFACTORY (NEGATIVE RESULT) FOR TOTAL COLIFORM PRIOR TO LIFTING NOTIFICATION TO THE RESIDENTS
6. ABANDON DISCONNECTED FEATURES
6.1. ABANDON THE EXISTING HYDRO-PNEUMATIC TANK. DRAIN THE TANK WITH THE EXISTING DRAIN LINE INTO THE FLOOR DRAIN IN THE PUMP HOUSE. WHEN EMPTY, THE TANK SHALL BE ABANDONED IN PLACE. FRONT COVER MAY BE REMOVED FOR VISUAL ACCESS TO TANK. THE CONTRACTOR HAS THE OPTION TO ALLOW TIME FOR THE RESIDUAL CHLORINE LEVELS IN THE TANK TO ABANDON IN PLACE OR TO INTRODUCE A REDUCING AGENT TO REDUCE CHLORINE LEVELS TO AS CLOSE TO 0.0 MG/L AS POSSIBLE.
6.2. REMOVE THE AIR COMPRESSOR - CONTACT TOWN OF BEEKMAN FOR FINAL DISPOSITION (CONTRACTOR NOT TO ASSUME POSSESSION)
6.3. REMOVE SECTION OF SOIL ABOVE THE EXISTING ATMOSPHERIC STORAGE TANK. CUT HOLE INTO TOP OF TANK, AND DROP PUMP INTO THE TANK TO DRAIN INTO THE CREEK ON-SITE. FILL WITH SOIL TO ABANDON IN PLACE. EXPOSE SUPPLY AND DISCHARGE LINES. CUT AND CAP LINES. BACKFILL AND RE-ESTABLISH VEGETATION IN DISTURBED AREAS.
6.4. REMOVE EXISTING CONTROL PANEL AND ALL ELECTRICAL CONNECTIONS.

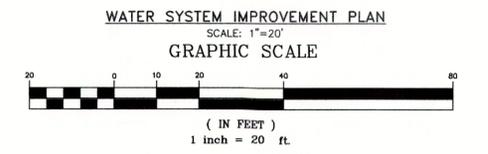


DCDOH APPROVAL BLOCK
RECOMMENDED FOR APPROVAL BY: [Signature]
DATE: 5/21/19
PROJECT: PWS Improvements (Storage tank and booster pumps) for Dover Ridge Estates, Town of Beekman
SUPERVISING PUBLIC HEALTH ENGINEER

OWNER'S CONSENT:
THE UNDERSIGNED OWNER OF THE PROPERTY HEREON STATES THAT HE/SHE IS FAMILIAR WITH THIS MAP, ITS CONTENTS AND ITS LEGENDS AND HEREBY CONSENTS TO ALL SAID TERMS AND CONDITIONS AS STATED HEREON.
DATE: 5-30-2019
TOWN SUPERVISOR

Table with 4 columns: NO., DATE, DESCRIPTION, BY. Contains revision history for health department comments.

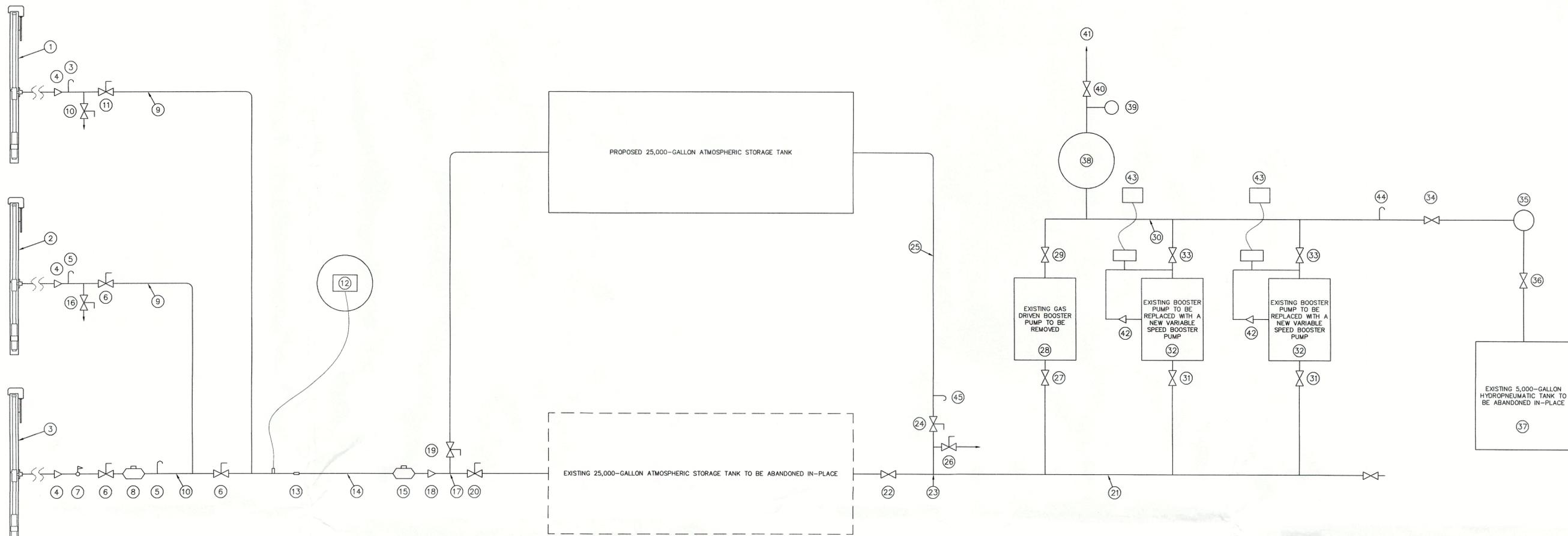
Table with 4 columns: NO., DATE, DESCRIPTION, BY. Contains revision history for design changes.



HUDSON LAND DESIGN
PROFESSIONAL ENGINEERING P.C.
174 MAIN ST., BEACON, NEW YORK 12508
13 CHAMBERS ST., NEWBURGH, NEW YORK 12550
PH: 845-440-6926
F: 845-440-6637

WATER SYSTEM IMPROVEMENT PLAN
DOVER RIDGE
30 STOWE DRIVE
TOWN OF BEEKMAN
DUTCHESS COUNTY, NEW YORK
TAX ID: 0859-02-514539

JOB #: 2013-014
DATE: 12/31/2018
SCALE: 1" = 20'
TITLE: UT-1
SHEET: 1 OF 4



WATER SYSTEM SCHEMATIC NOTES

1. WELL #1 NOT IN SERVICE
2. WELL #2 RUN SIMULTANEOUSLY WITH WELL #3
3. WELL #3 RUN SIMULTANEOUSLY WITH WELL #2
4. CHECK VALVE (TYP)
5. EXISTING SAMPLING POINT (RAW WATER)
6. EXISTING BALL VALVE (NORMALLY OPEN)
7. EXISTING PRESSURE REDUCING VALVE TO BE REMOVED AND REPLACED WITH STRAIGHT PIPE SECTION
8. EXISTING 1" NEPTUNE T-10 METER
9. EXISTING 2" GALVANIZED STEEL WELL SUPPLY LINE
10. EXISTING 1 1/2" GALVANIZED STEEL WELL SUPPLY LINE
11. EXISTING BALL VALVE NORMALLY CLOSED
12. EXISTING 50-GALLON CHLORINE CROCK WITH CHEMTECH SERIES 100 CHLORINE INJECTION PUMP (RUNS WITH WELL PUMPS)
13. EXISTING UNION
14. EXISTING 2" PVC SUPPLY LINE TO ATMOSPHERIC STORAGE TANK
15. EXISTING 2" ELSTER WATER METER
16. EXISTING 2" DISCHARGE STUB WITH BALL VALVE (NORMALLY CLOSED)
17. PROPOSED 2" SCH 80 PVC SUPPLY LINE TO NEW ATMOSPHERIC STORAGE TANK, RESTRAIN WITH MEGALUG SERIES 6500 & 7500 AT ALL JOINTS AND FITTINGS, RESPECTIVELY
18. PROPOSED CHECK VALVE (TYP)
19. PROPOSED BALL VALVE (NORMALLY OPEN FOLLOWING TRANSITION TO NEW TANK IN SERVICE)
20. EXISTING BALL VALVE (NORMALLY CLOSED FOLLOWING TRANSITION TO NEW TANK IN SERVICE)

21. EXISTING 4" GALVANIZED STEEL WATER LINE FROM ATMOSPHERIC STORAGE TANK
22. PROPOSED 4" INSERTION VALVE WITHIN INTERIOR OF PUMP HOUSE (NORMALLY CLOSED FOLLOWING TRANSITION TO NEW TANK IN SERVICE)
23. CONNECT NEW TANK LINE TO EXISTING 4" HEADER PIPE
24. PROPOSED BALL VALVE (NORMALLY OPEN FOLLOWING TRANSITION TO NEW TANK IN SERVICE)
25. PROPOSED 4" SCH 80 PVC TANK LINE TO PUMP HOUSE, RESTRAIN WITH MEGALUG SERIES 6500 & 7500 AT ALL JOINTS AND FITTINGS, RESPECTIVELY
26. PROPOSED 2" DISCHARGE STUB WITH BALL VALVE (NORMALLY CLOSED) FOR TANK DRAINING
27. EXISTING 2" STEEL LINE WITH GATE VALVE TO GAS DRIVEN PUMP (NORMALLY CLOSED)
28. EXISTING GAS DRIVEN PUMP TO BE REMOVED, INTAKE PIPE TO BE CUT ±2" ON PUMP SIDE OF THE GATE VALVE (TO SERVE AS ALTERNATE OUTLET TO DRAIN EXISTING ATMOSPHERIC STORAGE TANK); DISCHARGE PIPE TO BE CUT ±2" ON PUMP SIDE OF THE GATE VALVE (TO SERVE AS CONNECTION TO NEW BLADDER TANK)
29. EXISTING 2" STEEL LINE WITH GATE VALVE TO DISTRIBUTION HEADER (NORMALLY CLOSED)
30. EXISTING 4" GALVANIZED STEEL DISTRIBUTION HEADER
31. EXISTING 2" STEEL LINE WITH GATE VALVE TO BOOSTER PUMP (NORMALLY OPEN)
32. EXISTING BOOSTER PUMPS TO BE REPLACED WITH NEW VARIABLE SPEED FREQUENCY DRIVE BOOSTER PUMPS
33. EXISTING 2" STEEL LINE WITH GATE VALVE TO DISTRIBUTION HEADER

- (NORMALLY OPEN)
34. PROPOSED 4" INSERTION VALVE (NORMALLY OPEN)
35. EXISTING 6" WATER MAIN TO DISTRIBUTION
36. EXISTING GATE VALVE (NORMALLY CLOSED FOLLOWING TRANSITION TO NEW BOOSTER PUMPS IN SERVICE)
37. EXISTING HYDROPNEUMATIC TANK TO BE ABANDONED IN PLACE
38. PROPOSED WELL X-TROL WX 403C 34-GALLON BLADDER TANK. CONNECT TO EXISTING 2" FORMER DISCHARGE LINE FROM THE GAS DRIVEN PUMP. TANK DIAMETER = 16", TANK HEIGHT = 49", TO BE PLACED ON EXISTING CONCRETE PAD.
39. PROPOSED PRESSURE GAUGE
40. PROPOSED GATE VALVE (NORMALLY CLOSED)
41. PROPOSED 2" HOSE BIB (USE FOR PRESSURE TANK DRAIN)
42. PROPOSED 2" SCH 80 PVC DISCHARGE LINE WITH CHECK VALVE AND PRESSURE SENSORS TO TIE BACK INTO DISCHARGE LINE FROM EXISTING PUMP
43. PROPOSED VARIABLE FREQUENCY DRIVE CONTROLLER (TYP)
44. PROPOSED SMOOTH-NOSED SAMPLING TAP TO BE INSTALLED ON BACK WALL A MINIMUM OF 3 FEET ABOVE FLOOR FOR TREATED WATER SAMPLING POINT. PROVIDE SIGN ABOVE SAMPLING TAP INDICATING THAT A MINIMUM CHLORINE RESIDUAL OF 0.5 MG/L MUST BE MAINTAINED AT THE SAMPLING POINT LOCATION TO MAINTAIN 4-LOG INACTIVATION.
45. PROPOSED SMOOTH-NOSED SAMPLING TAP TO BE INSTALLED ON BACK WALL A MINIMUM OF 1 FOOT ABOVE FLOOR FOR NEW ATMOSPHERIC STORAGE TANK TREATED WATER SAMPLING POINT.

WATER SYSTEM SCHEMATIC
NOT TO SCALE

OWNER'S CONSENT:

THE UNDERSIGNED OWNER OF THE PROPERTY HEREON STATES THAT HE/SHE IS FAMILIAR WITH THIS MAP, ITS CONTENTS AND ITS LEGENDS AND HEREBY CONSENTS TO ALL SAID TERMS AND CONDITIONS AS STATED HEREON.

My B. Orandi
TOWN SUPERVISOR
5-30-2019
DATE

DUTCHESS COUNTY DEPT. OF HEALTH
Poughkeepsie New York
These plans are approved.
See first sheet for date and signature.

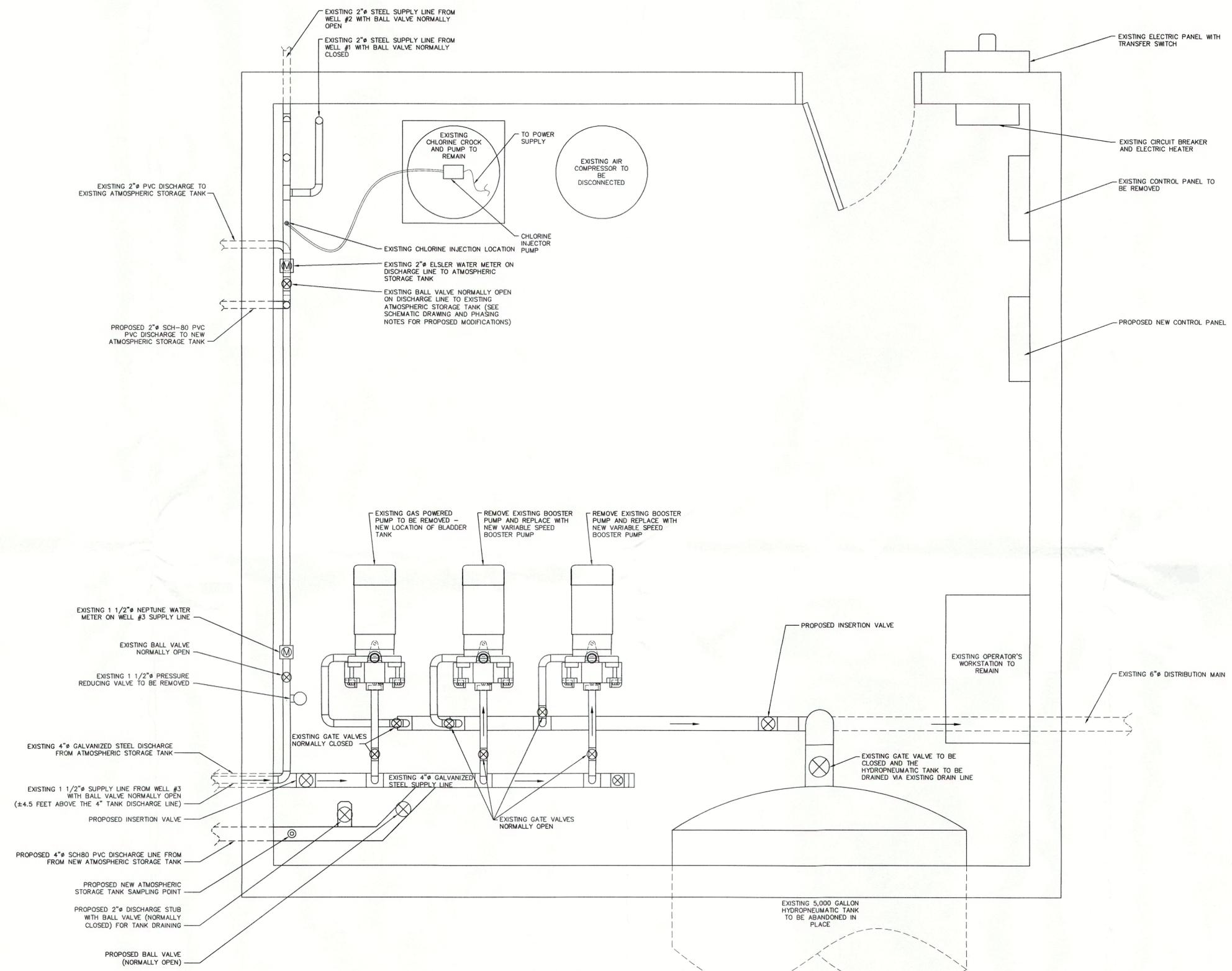
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REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	5/1/19	PER HEALTH DEPARTMENT COMMENTS	DGK				
2	5/21/19	NO CHANGES MADE THIS SHEET	AG				



HUDSON
LAND DESIGN
HUDSON LAND DESIGN
PROFESSIONAL ENGINEERING P.C.
174 MAIN ST., BEACON, NEW YORK 12508
13 CHAMBERS ST., NEWBURGH, NEW YORK 12550
PH: 845-440-6926
F: 845-440-6637

WATER SYSTEM SCHEMATIC
DOVER RIDGE
30 STOWE DRIVE
TOWN OF BEEKMAN
DUTCHESS COUNTY, NEW YORK
TAX ID: 6859-02-514539

JOB #: 2013-014
DATE: 12/31/2018
SCALE: AS SHOWN
TITLE: CD-1
SHEET: 2 OF 4



PUMP HOUSE FLOOR PLAN
NOT TO SCALE

OWNER'S CONSENT:
THE UNDERSIGNED OWNER OF THE PROPERTY HEREON STATES THAT HE/SHE IS FAMILIAR WITH THIS MAP, ITS CONTENTS AND ITS LEGENDS AND HEREBY CONSENTS TO ALL SAID TERMS AND CONDITIONS AS STATED HEREON.

Ray B. Conradi
TOWN SUPERVISOR

5-30-19
DATE

DUTCHESS COUNTY DEPT. OF HEALTH
Poughkeepsie New York
These plans are approved.
See first sheet for date and signature.

DRAWN BY: CMB				CHECKED BY: DGK			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	5/1/19	PER HEALTH DEPARTMENT COMMENTS	DGK				
2	5/21/19	NO CHANGES MADE THIS SHEET	AG				

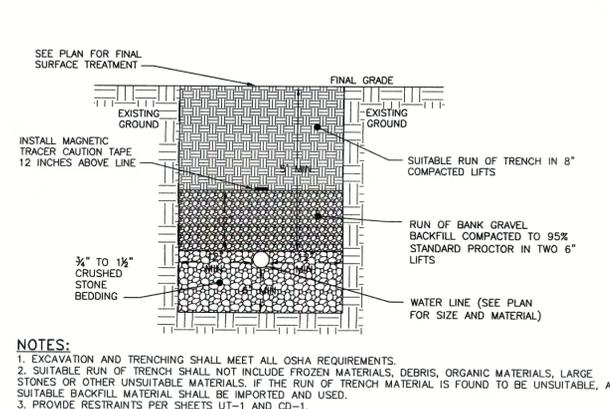


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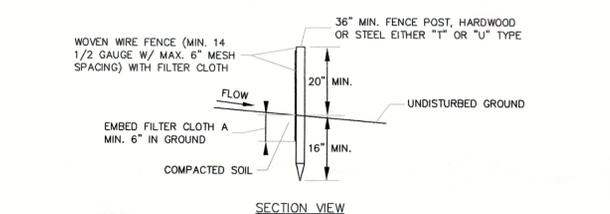
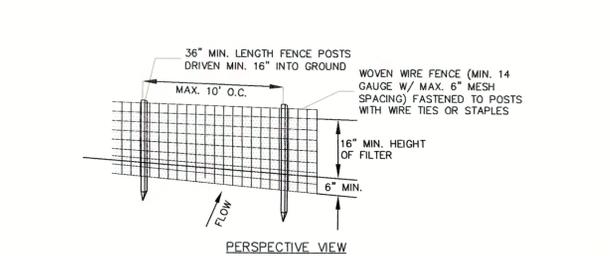
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174 MAIN ST., BEACON, NEW YORK 12508
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PUMP HOUSE FLOOR PLAN
DOVER RIDGE
30 STOWE DRIVE
TOWN OF BEEKMAN
DUTCHESS COUNTY, NEW YORK
TAX ID: 6859-02-514539

JOB #: 2013:014
DATE: 12/31/2018
SCALE: AS SHOWN
TITLE: CD-2
SHEET: 3 OF 4



WATER LINE TRENCH DETAIL
NOT TO SCALE



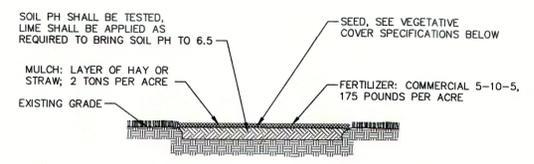
- NOTES:**
1. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
 2. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABILINKA T140N OR APPROVED EQUAL.
 3. PREFABRICATED UNITS SHALL BE GEOTAB, ENVIROFENCE OR APPROVED EQUAL.
 4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

SILT FENCE DETAIL
NOT TO SCALE

OWNER'S CONSENT:
THE UNDERSIGNED OWNER OF THE PROPERTY HEREON STATES THAT HE/SHE IS FAMILIAR WITH THIS MAP, ITS CONTENTS AND ITS LEGENDS AND HEREBY CONSENTS TO ALL SAID TERMS AND CONDITIONS AS STATED, HEREON.

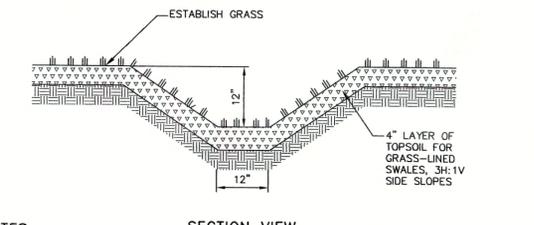
Ray B. Lavaroni
TOWN SUPERVISOR

5-30-19
DATE



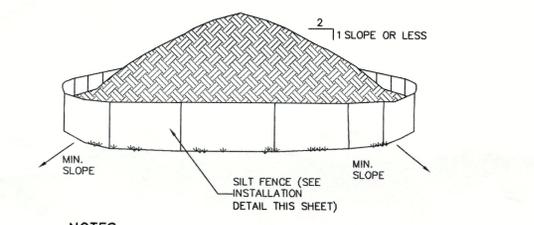
- NOTES:**
1. TOPSOIL, SEED, MULCH, AND FERTILIZE DISTURBED SOIL AREAS THAT WILL BE LEFT EXPOSED FOR 14 DAYS OR MORE.
 2. SEED MIXTURE FOR USE ON LAWNS IN SUNNY AREAS:
65% KENTUCKY BLUE GRASS BLEND
20% PERENNIAL RYEGRASS
15% FINE FESCUE
114 POUNDS PER ACRE
35 POUNDS PER ACRE
26 POUNDS PER ACRE
175 POUNDS PER ACRE
 3. SEED MIXTURE FOR USE IN SHADY AREAS:
80% BLEND OF SHADE TOLERANT KENTUCKY BLUEGRASS
20% FINE FESCUE
138 POUNDS PER ACRE
37 POUNDS PER ACRE
175 POUNDS PER ACRE
 4. SEED BETWEEN APRIL 1ST AND MAY 15TH OR AUGUST 15TH AND OCTOBER 15TH. SEEDING MAY OCCUR BETWEEN MAY 15TH AND AUGUST 15TH IF ADEQUATE IRRIGATION IS PROVIDED.
 5. TOPSOIL SHALL HAVE AT LEAST 6% BY WEIGHT OF FINE TEXTURED STABLE ORGANIC MATERIAL, AND NO GREATER THAN 20% TOPSOIL SHALL HAVE NOT LESS THAN 20% FINE TEXTURED MATERIAL (PASSING THE NO. 200 SIEVE) AND NOT MORE THAN 15% CLAY.

TOPSOIL, SEED AND MULCH DETAIL
NOT TO SCALE



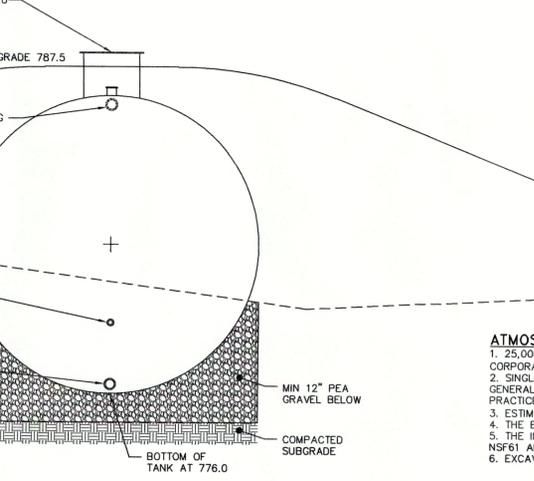
- NOTES:**
1. SEE PLAN FOR LOCATIONS.
 2. THE SWALE SHALL BE SEEDED WITH KENTUCKY BLUEGRASS AND FERTILIZED, APPLICATION RATE PER USDA NRCS RECOMMENDATIONS.

GRASS-LINED SWALE DETAIL
NOT TO SCALE



- NOTES:**
1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
 2. EACH PILE SHALL BE SURROUNDED WITH SILT FENCING, THEN STABILIZED WITH VEGETATION OR COVERED.

TEMPORARY SOIL STOCKPILE DETAIL
NOT TO SCALE



ATMOSPHERIC STORAGE TANK DETAIL
SCALE: 1' = 3'

WATER PRESSURE & LEAKAGE TESTING:
GENERAL: THE SUPPLY LINE AND TANK DISCHARGE PIPING SHALL BE TESTED IN ACCORDANCE WITH THE REQUIREMENTS BELOW:

1. THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY FOR ANY AND ALL REQUIRED PIPE TAPS FOR TESTING, AND AS NECESSARY FOR TESTING AS SPECIFIED. EQUIPMENT WILL BE SUCH THAT THE ENGINEER MAY INSTALL HIS OWN PRESSURE GAUGE.
2. THE CONTRACTOR SHALL CONTACT THE DESIGN ENGINEER A MINIMUM OF 24 HOURS PRIOR TO TESTING SUCH THAT WITNESSING CAN TAKE PLACE AND PROPER CERTIFICATIONS CAN BE ISSUED.
3. A PRESSURE TEST AND LEAKAGE TEST ARE REQUIRED FOR THE NEW SUPPLY LINE AND THE NEW TANK DISCHARGE PIPING.
4. TESTING TO BE PERFORMED ONLY AFTER PARTIAL OR COMPLETE BACKFILL AND RESTRAINTS ARE IN PLACE.
5. ALL AIR MUST BE BLED OUT OF THE SECTION TO BE TESTED. IF NECESSARY, CONTRACTOR SHALL INSTALL CORPORATION STOPS AT THE HIGH POINTS, FOR BLOW-OFFS. AFTER ALL AIR HAS BEEN EXPULSED, THE CORPORATION COCKS SHALL BE CLOSED AND THE PRESSURE TEST APPLIED. AFTER EXAMINATION OF EXPOSED PARTS OF THE SYSTEM, THE TEST PRESSURE SHALL BE INCREASED TO 1 1/2 TIMES THE NORMAL WORKING PRESSURE IF KNOWN, OR THE MAXIMUM RATED PRESSURE OF THE PIPE, VALVES OR FITTINGS, WHICHEVER IS LESS. THE MINIMUM DURATION OF THE LEAKAGE TEST SHALL BE TWO (2) HOURS.
6. THERE IS NO ALLOWABLE SYSTEM LEAKAGE. IF LEAKAGE IS DETECTED, CONTRACTOR WILL LOCATE AND REPAIR SYSTEM AT HIS EXPENSE AND RETEST. CONTINUE TO TEST AND REPAIR THE SYSTEM UNTIL THERE IS NO LEAKAGE.

WATERLINE & TANK DISINFECTION & TESTING:
GENERAL: THE SUPPLY LINE AND TANK DISCHARGE PIPING SHALL BE DISINFECTED IN ACCORDANCE WITH THE REQUIREMENTS BELOW:

1. THE CONTRACTOR SHALL CONTACT THE DESIGN ENGINEER A MINIMUM OF 24 HOURS PRIOR TO TESTING SUCH THAT WITNESSING CAN TAKE PLACE AND PROPER CERTIFICATIONS CAN BE ISSUED.
2. ALL NEWLY INSTALLED WATER LINES SHALL BE FLUSHED AT A MINIMUM VELOCITY OF 2.5 FT/SECOND BEFORE AND AFTER DISINFECTION.
3. ALL WATER LINES SHALL BE DISINFECTED USING THE PROCEDURES DESCRIBED IN THE LATEST EDITION OF AWWA C651 SPECIFICATIONS FOR DISINFECTION OF WATER LINES (WITH THE EXCEPTION OF THE TABLET METHOD). WATER ENTERING THE NEW MAIN SHALL RECEIVE A DOSE OF CHLORINE FED AT A CONSTANT RATE SUCH THAT THE WATER WILL HAVE NOT LESS THAN 25 MG/L FREE CHLORINE. CHLORINE APPLICATION SHALL NOT CEASE UNTIL THE ENTIRE LINE IS FILLED WITH HEAVILY CHLORINATED WATER.
4. DISINFECTED WATER SHALL REMAIN IN THE NEWLY INSTALLED WATER LINE FOR A MINIMUM OF 24 HOURS. AFTER THIS RETENTION PERIOD, THE HEAVILY CHLORINATED WATER SHALL BE FLUSHED FROM THE LINE UNTIL CHLORINE MEASUREMENTS SHOW A CONCENTRATION IN THE WATER LEAVING THE LINE HAS NO HIGHER THAN THAT GENERALLY PREVAILING IN THE SYSTEM. THE DESIGN ENGINEER SHALL BE NOTIFIED PRIOR TO DISPOSAL OF HIGHLY CHLORINATED WATER. THE CONTRACTOR HAS THE OPTION TO ALLOW TIME FOR THE RESIDUAL CHLORINE LEVELS IN THE LINES TO DISSIPATE OR TO INTRODUCE A REDUCING AGENT TO REDUCE CHLORINE LEVELS TO AS CLOSE TO 0.0 MG/L AS POSSIBLE.

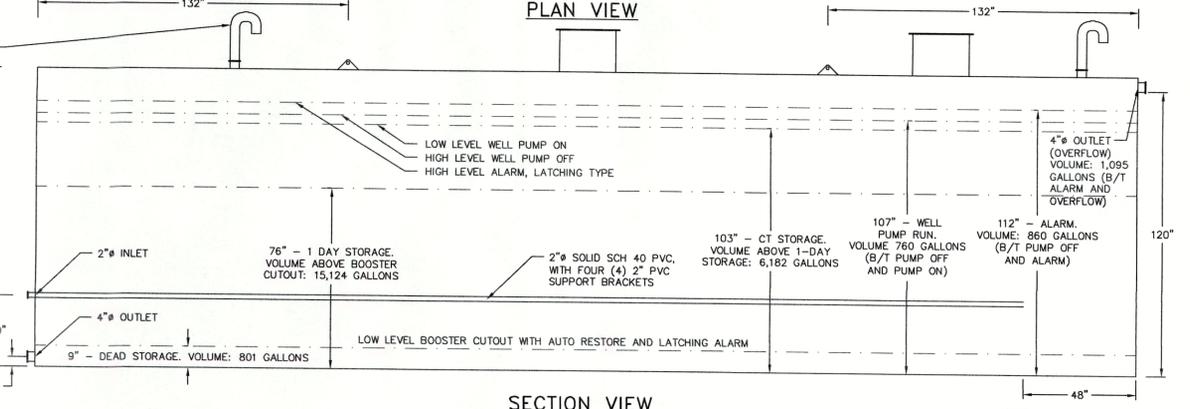
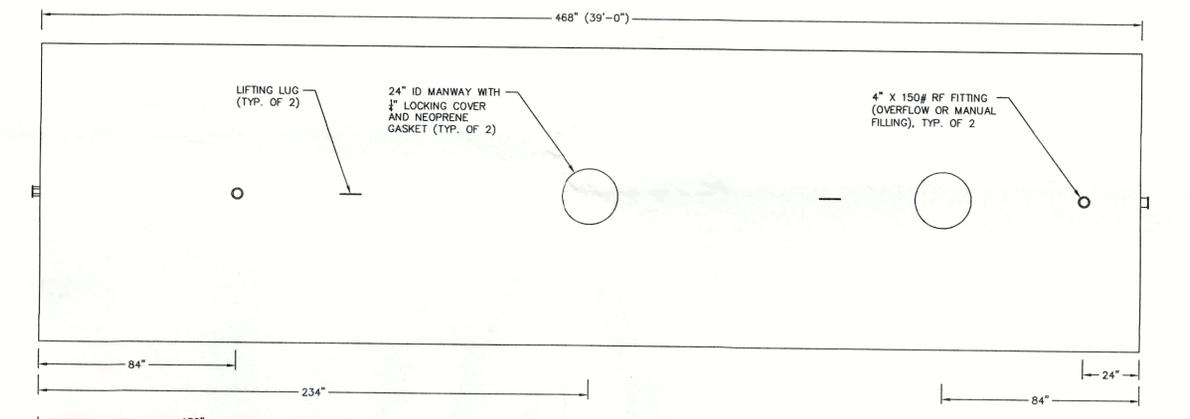
GENERAL: THE ATMOSPHERIC STORAGE TANK SHALL BE DISINFECTED IN ACCORDANCE WITH THE REQUIREMENTS BELOW:

1. THE CONTRACTOR SHALL CONTACT THE DESIGN ENGINEER A MINIMUM OF 24 HOURS PRIOR TO TESTING SUCH THAT WITNESSING CAN TAKE PLACE AND PROPER CERTIFICATIONS CAN BE ISSUED.
2. THE VENT SCREEN, OVERFLOW SCREEN, AND ANY OTHER SCREENED OPENINGS SHALL BE CHECKED AND PUT IN SATISFACTORY CONDITION TO PREVENT BIRDS, INSECTS, AND OTHER POSSIBLE CONTAMINANTS FROM ENTERING THE FACILITY.
3. THE TANK SHALL BE DISINFECTED USING THE PROCEDURES DESCRIBED IN THE LATEST EDITION OF AWWA C652 SPECIFICATIONS FOR DISINFECTION OF WATER STORAGE FACILITIES (WITH THE EXCEPTION OF THE TABLET METHOD). WATER ENTERING THE NEW TANK SHALL RECEIVE A DOSE OF CHLORINE FED AT A CONSTANT RATE SUCH THAT THE WATER WILL HAVE NOT LESS THAN 10 MG/L FREE CHLORINE FOLLOWING RETENTION PERIOD. CHLORINE APPLICATION SHALL NOT CEASE UNTIL THE ENTIRE TANK IS FILLED WITH HEAVILY CHLORINATED WATER UP TO THE OVERFLOW LEVEL.
4. DISINFECTED WATER SHALL REMAIN IN THE NEWLY INSTALLED WATER TANK FOR A MINIMUM OF 24 HOURS. AFTER THIS RETENTION PERIOD, THE HEAVILY CHLORINATED WATER SHALL BE FLUSHED FROM THE TANK UNTIL CHLORINE MEASUREMENTS SHOW A CONCENTRATION IN THE WATER LEAVING THE TANK HAS NO HIGHER THAN THAT GENERALLY PREVAILING IN THE SYSTEM. THE DESIGN ENGINEER SHALL BE NOTIFIED PRIOR TO DISPOSAL OF HIGHLY CHLORINATED WATER. THE CONTRACTOR HAS THE OPTION TO ALLOW TIME FOR THE RESIDUAL CHLORINE LEVELS IN THE TANK TO DISSIPATE OR TO INTRODUCE A REDUCING AGENT TO REDUCE CHLORINE LEVELS TO AS CLOSE TO 0.0 MG/L AS POSSIBLE.

GENERAL: FOLLOWING DISINFECTION OF THE LINES AND THE TANK, AND PRIOR TO PLACING INTO SERVICE, THE FOLLOWING SAMPLING SHALL BE PERFORMED:

1. BACTERIOLOGICAL SAMPLING FOR SUBMITTAL TO STATE HEALTH LABORATORIES SHALL BE PERFORMED BY THE CONTRACTOR.
2. WATER SAMPLES SHALL BE TESTED FOR TOTAL COLIFORM, TPC (HETEROTROPHIC PLATE COUNT), TURBIDITY & COLOR.
3. CONTRACTOR WILL CONTINUE FLUSHING AND DISINFECTION OPERATION UNTIL ACCEPTABLE BACTERIOLOGICAL RESULTS ARE OBTAINED. TWO (2) SUCCESSIVE SAMPLES ARE TO BE TAKEN AT TWENTY-FOUR (24) HOUR INTERVALS.

DUTCHESS COUNTY DEPARTMENT OF BEHAVIORAL AND COMMUNITY HEALTH (DCBCH) NOTES:
THE DESIGN, CONSTRUCTION AND INSTALLATION SHALL BE IN ACCORDANCE WITH THIS PLAN AND GENERALLY ACCEPTED STANDARDS IN EFFECT AT THE TIME OF CONSTRUCTION WHICH INCLUDE:
"RECOMMENDED STANDARDS FOR WATER WORKS (TEN STATES)"
"NEW YORK STATE DEPARTMENT OF HEALTH AND DUTCHESS COUNTY ENVIRONMENTAL HEALTH SERVICES DIVISION POLICIES, PROCEDURES AND STANDARDS."
"DUTCHESS COUNTY AND NEW YORK STATE SANITARY CODES."
"DUTCHESS COUNTY ENVIRONMENTAL HEALTH SERVICES DIVISION CERTIFICATE OF APPROVAL LETTER."
THIS PLAN IS APPROVED AS MEETING THE APPROPRIATE AND APPLIED TECHNICAL STANDARDS, GUIDELINES, POLICIES AND PROCEDURES FOR ARRANGEMENT OF WATER SUPPLY FACILITIES.
UPON COMPLETION OF THE FACILITIES, THE FINISHED WORKS SHALL BE INSPECTED, TESTED, AND CERTIFIED COMPLETE TO THE DC EHS BY THE NEW YORK STATE REGISTERED DESIGN PROFESSIONAL SUPERVISING CONSTRUCTION. NO PART OF THE FACILITIES SHALL BE PLACED INTO SERVICE UNTIL ACCEPTED BY THE DC EHS.
APPROVAL OF ANY PLAN(S) OR AMENDMENT THERETO SHALL BE VALID FOR A PERIOD OF 5 YEARS FROM THE DATE OF APPROVAL. FOLLOWING THE EXPIRATION OF SAID APPROVAL, THE PLAN(S) SHALL BE RE-SUBMITTED TO THE COMMISSIONER OF HEALTH FOR CONSIDERATION FOR RE-APPROVAL. RE-SUBMISSION OR REVISED SUBMISSION OF PLANS AND/OR ASSOCIATED DOCUMENTS SHALL BE SUBJECT TO COMPLIANCE WITH THE TECHNICAL STANDARDS, GUIDELINES, POLICIES AND PROCEDURES IN EFFECT AT THE TIME OF THE RE-SUBMISSION.
ALL PROPOSED WELLS AND SERVICE LINES ON THIS PLAN ARE ACCESSIBLE FOR INSTALLATION AND FLOORING.
NO CELLAR, FOOTING, FLOOR, GARAGE, COOLER OR ROOF DRAINS SHALL BE DISCHARGED WITHIN 50 FEET OF ANY WELL.
ALL REQUIRED EROSION & SEDIMENT CONTROL AND STORMWATER POLLUTION PREVENTION WATER QUALITY & QUANTITY CONTROL STRUCTURES, PERMANENT AND TEMPORARY, ARE SHOWN ON THE PLANS.



ATMOSPHERIC STORAGE TANK DETAIL
SCALE: 1' = 3'

- ATMOSPHERIC STORAGE TANK NOTES:**
1. 25,000 GALLON ATMOSPHERIC STORAGE TANK BY MASS TANK SALES CORPORATION, PHONE (508) 947-8669.
 2. SINGLE WALL TANK SHALL BE DESIGNED AND CONSTRUCTED IN GENERAL ACCORDANCE WITH UL 58 AND STANDARD CONSTRUCTION PRACTICES FOR POTABLE WATER TANKS.
 3. ESTIMATED WEIGHT OF TANK (EMPTY) = 18,750 POUNDS.
 4. THE EXTERIOR OF THE TANKS SHALL BE COATED WITH ASPHALTUM.
 5. THE INTERIOR OF THE TANKS SHALL BE COATED WITH SEALCOAT HF, NSF61 APPROVED.
 6. EXCAVATION AND TRENCHING SHALL MEET ALL OSHA REQUIREMENTS.

DUTCHESS COUNTY DEPT. OF HEALTH
Poughkeepsie New York
These plans are approved.
See first sheet for date and signature.

DRAWN BY: CMB				CHECKED BY: DGK			
REVISIONS:							
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	5/1/19	PER HEALTH DEPARTMENT COMMENTS	DGK				
2	5/21/19	PER HEALTH DEPARTMENT COMMENTS	AG				



HUDSON LAND DESIGN
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F: 845-440-6637

DETAILS & NOTES
DOVER RIDGE
30 STOWE DRIVE
DOVER RIDGE WATER DISTRICT
DUTCHESS COUNTY, NEW YORK
TAX ID: 6859-02-514539

JOB #: 2013-014
DATE: 12/31/2018
SCALE: AS SHOWN
TITLE: CD-3
SHEET: 4 OF 4

ATTACHMENT C
Engineer's Reports

RECEIVED
MAY 30 2019
ENVIRONMENTAL HEALTH

Engineer's Report

Dover Ridge Estates Water System
Public Water Supply ID 1302804

Prepared for:
Town of Beekman
4 Main Street
Poughquag, NY 12570

December 31, 2018
Revised May 1, 2019
Revised May 21, 2019



Prepared by:
Hudson Land Design Professional Engineering, P.C.
174 Main Street
Beacon, NY 12508
Ph: (845) 440-6926
F: (845) 440-6637



RECEIVED

MAY 30 2019

ENVIRONMENTAL HEALTH

Engineer's Report

Dover Ridge Estates Water System

Public Water Supply ID 1302804

RECOMMENDED FOR APPROVAL
Daniel G. [Signature]

DUTCHESS COUNTY DEPARTMENT OF HEALTH
APPROVED

DATE: 5/31/19

PROJECT: PWS Improvements (Storage tank + booster pumps) for Dover Ridge Estates, Town of Beekman, NY

[Signature]
SUPERVISING PUBLIC HEALTH ENGINEER P.E.

As See Approved Engineering Plans

..... 2

..... 2

..... 3

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Appendix A: Cut Sheets

1.0 INTRODUCTION

The Dover Ridge Estates Water System (DREWS) is a publicly owned Community Water System in the northeast portion of the Town of Beekman in Dutchess County, New York. DREWS supplies potable water to a District comprised of seventy (70) residential parcels, of which sixty-seven (67) have residential single-family homes while the other three (3) lots remain vacant. There are also three (3) parcels related to the water system and the Dover Ridge Estates Sewer System. Typically three (3) and four (4) bedroom homes were constructed within the service area between 1965 and the early 2000's.

2.0 EXISTING CONDITIONS

The system has been servicing its users for approximately fifty (50) years. The system was originally privately-owned (Doveridge Water Company, Inc.). In April 1997, the Town of Beekman took over the operation of the water system as an emergency measure since it was abandoned by the private owner. Since that time, the Town has formally created the Water District, and taken ownership of the water parcel via eminent domain.

Many components of the system appear to be original, and the Dutchess County Department of Behavioral and Community Health (DCDBCH) has issued violations as the system is not compliant with Part 5 of the Compilation of the Rules and Regulations of the State of New York (NYCRR).

There is a ± 1.48 -acre parcel located on the south side of Stowe Drive that serves as the water system parcel. There are three (3) drilled wells on the water parcel, a 25,000-gallon underground water storage tank that is leaking and at the end of its useful life, two booster pumps that are in poor condition, and a buried 5,000-gallon hydropneumatic tank that is at the end of its useful life. There is also a recently installed emergency generator that was completed in 2018. Recent operation reports for DREWS indicate an average daily flow (ADF) of approximately 14,770 gallons per day (gpd), say 15,000 gpd.

2.1 Sources

There are three (3) drilled wells on the ± 1.48 -acre water parcel. Well #1 is located on the opposite side of the stream from the pump house, is approximately 350-feet deep and is currently not in use due to limited yield. Well #2 is located between the pump house and Stowe Drive, is approximately 430-feet deep and produces approximately thirteen (13) gallons per minute (gpm) with a 3 horsepower well pump. The operator notes that this well is slightly throttled back to maintain approximately 13 gpm. Well #3 is located southeast of the buried water storage tank, is approximately 570-feet deep and produces approximately twenty-five (25) gpm with a 5 horsepower well pump. This well is not throttled back per the operator.

2.2 Treatment

Water produced from Wells #2 and #3 is disinfected via introduction of sodium hypochlorite solution as the well pumps are delivering water to the existing 25,000-gallon underground storage tank. Typically two quarts of 15% hypochlorite is added per 10 gallons to an existing 50-gallon chlorine crock, where a Chemtech series 100 chemical feeder introduces the hypochlorite solution to the raw water. Chlorine contact time takes place within the existing atmospheric storage tank, and a free chlorine residual of approximately 1.5 mg/L is typically maintained at the pump house (entry point residual). Both wells run together to blend the water to maintain maximum contaminant level compliance as radionuclides have been found in well #3 in the past.

2.3 Storage

There is a buried 25,000-gallon atmospheric storage tank on the south side of the pump house. This tank holds the chlorinated well water and provides chlorine contact time. The *2012 Recommended Standards for Water Works* a.k.a. Ten States Standards requires storage in the amount equal to the average daily consumption for those systems that do not provide fire flow. Therefore, the minimum required storage is met within the atmospheric storage tank as this system does not provide fire flow and the ADF is metered to be 16,500 gpd. However, the tank is leaking approximately 1,000 to 2,000 gpd, as estimated by the contracted operator. The side of the hill near the atmospheric storage tank is wet and has wetland plant species indicating that there is a constant leak. The ground cover on the downhill side slope from the tank consists of high grasses and some woody shrubs/trees. These groundcovers do not permit regular visual inspection of the slope for stability. The atmospheric storage tank lacks provisions for a manway for tank inspection and/or access. The atmospheric storage tank has met its useful life and the DCDBCH has mandated replacement of the atmospheric tank.

2.4 Pressure System

Two (2) electric driven 10-horsepower transfer pumps extract water from the atmospheric storage tank and pressurize a 5,000-gallon hydropneumatic tank, which is predominantly buried on the east side of the pump house (the face of the tank is exposed within the pump house). The hydropneumatic tank's exposed surface exhibits high levels of rusting and pitting, where the paint and some of its steel have been removed. Access to the tank appears to be seized by the rust.

The transfer pumps alternately turn on when the pressure within the hydropneumatic tank is at seventy (70) pounds per square inch (psi) and turn off at eighty-two (82) psi. The pump house is also equipped with an air compressor that makes-up lost pressure within the hydropneumatic tank. There is also a gas-driven pump that is tied into the system but has not been used any time recently. This gas-driven pump served as back-up for continued distribution during periods of electric outage.

Both the pressure tank and transfer pumps are original and are at the end of their useful life. The pumps are leaking and there is no way to inspect the interior of the pressure tank. There are also remains from an auxiliary gasoline driven pump that has not been in use for decades. All of the

above equipment need to be removed and/or replaced. The DCDBCH has mandated that the pumps and the hydropneumatic tank be analyzed. Per the contract operator, the pumps have been repaired on several occasions and have met their useful life. The hydropneumatic tank has been sanded and/or wire brushed and painted on several occasions. It currently has leaks and needs to be re-pressurized by an air compressor. It too has met its useful life.

3.0 PROPOSED IMPROVEMENTS

The system is in need of improvements to bring it into general compliance with today's standards and to meet the required improvements as set forth by an Order and Stipulated Agreement issued by DCDBCH late 2018.

3.1 Sources

There are no proposed changes to the current sources. Well #1 is to remain out of service at this time; however, the proposed control system will provide for potential re-introduction of this well at a later date in the event that the well is hydrofractured to increase its yield. In its current state, there are no controls for Well #1. In addition, the well casing for Well #3 will be raised to accommodate new grading in the area. The sanitary seal is to be raised such that it is a minimum of 12" above final grade.

3.2 Treatment

The well controls will continue to run Wells #2 & #3 simultaneously and control the chemical feeder in the same manner as it exists today. There are no additional treatment measures proposed.

3.3 Storage

Per discussions with the DCDBCH, since the existing tank is buried, they will permit a similar replacement installation. The design plan shows the location of the new buried tank, and a detail. It is proposed to provide a new 25,000-gallon atmospheric storage tank as manufactured by Mass Tank Sales Corporation. The tank has a diameter of 126" and a length of 468". Required chlorine contact time is achieved within the tank (see section below), as well as a full 15,000-gallon storage to meet ADF requirements. The tank will be equipped with two manway accesses, both of which will be extended above the final grade, and will be equipped with locking watertight overs. The tanks will also be equipped with two 4-inch vent pipes that will also serve as potential emergency filling locations for the tank in the event of future source issues. Both the supply and discharge lines for the new tank are located on the same side of the tank. In order to promote better mixing of the chlorine, the inlet of the tank will be equipped with a 2" diameter PVC pipe that extends 420" into the tank, thereby creating a better mixing situation that avoids short circuiting of the water if both the supply and discharge are running simultaneously. A transducer will work in concert with the control panel to dictate well on/off controls, and will also alert the operator of high level alarm, low level alarm, and low level alarm with booster cutout and auto restore.

The exterior of the tank will be coated with asphaltum to help prevent corrosion. The interior of the tank will be coated with Sealkote, an NSF-61 approved liner.

The atmospheric storage tank is required to provide 4-log inactivation of virus for water at 5-degrees Celsius, which requires a CT of 8.0 mg-min/L, and is calculated as follows:

- One-day storage volume provided at level 76": provides 15,124 gallons above dead storage in tank
- CT storage provided to level 103": 6,182 gallons above the one-day storage level which will be the low level well pump on
- Baffling Factor: 0.1 (the 2" inlet pipe interior to the tank will provide better mixing, and a baffling factor of 0.3 may be used, but a more conservative baffling factor of 0.1 was used for the calculation)
- Well Pump Flow: 38 gpm
- Entry Point Chlorine Residual: 0.5 ppm

Volume required: $(8.0 \text{ mg-min/L} \times 38 \text{ gpm}) / (0.5 \text{ ppm} \times 0.1) = 6,080 \text{ gallon}$. 6,182 gallons CT provided (ok)

At times when the tank needs to be drained, the plan calls for a new discharge stub within the pump house. The procedure for draining the tank is to cut power to the well pumps, disinfect the hose connection and stub by swabbing or spraying with 1% hypochlorite solution, run the hose to a stabilized area near the bank of the stream, and allow the tank to discharge by gravity pressure.

3.4 Pressure System

The proposal calls for removal of the existing gas-driven pump, the two electric booster pumps, and the hydropneumatic tank. It is proposed to replace the two booster pumps with two new 10-horsepower variable frequency drive booster pumps, Gould's model 22SV4GJ4F60. These pumps have been designed to operate to provide 85 gallons per minute (gpm) at 190 feet of total dynamic head.

This is based on the existing pressure cutout of the hydropneumatics tank (82 psi or 189 feet) and an assumed peak hourly demand calculated as follows:

$15,000 \text{ gpd} \times 1 \text{ day} / 1,440 \text{ minutes} = 10.4 \text{ gpm}$. Assume a peak factor of 8: peak hourly flow = 83 gpm.

As noted above, the pump design is based on existing pressure cutout in the hydropneumatic tank. The following hydraulic check was performed to corroborate the use of 82 psi:

1. Most hydraulically distant point is the house at 192 Stowe Drive.

- a. The elevation change from the pump house to the property is 67 feet or 29 psi.
- b. In the worst-case scenario, the existing mains along Tanner Drive and Cooper Road are out of service, thereby requiring the full length of main along Stowe Drive to the property. The length is 3,980 linear feet of 6" diameter water main. Assuming 10% equivalent length added for fittings, the equivalent length is 4,400 linear feet. Based on a peak flow of 83 gpm through the entire length of main (an overly conservative estimate), the resulting friction loss is approximately 7 feet or 3 psi.
- c. Velocity losses are negligible and the overall resulting losses to 192 Stowe Drive property are 32 psi, meaning that the anticipated pressure in the main in front of the property is 50 psi (82 minus 32).

The variable pump speeds are controlled by pressure readings in the system and eliminate the need for large-scale hydropneumatic tanks. However, a bladder tank is proposed on the discharge line to reduce hammer. The bladder tank will be a Well Xtrol model WX 403C (34-gallon) and will be plumbed into the existing discharge line from the gas-driven pump being removed.

3.5 Miscellaneous Improvements

In order to accommodate the new features, several plumbing improvements will need to be provided as the existing configuration does not easily permit new component installation. These items have been detailed on the plans and within the phasing notes on the plans. A new water supply line to the atmospheric storage tank and a new atmospheric storage tank discharge line are proposed. Both of these lines will be equipped with Megalug restraints at each joint and fitting. These new lines will limit downtime and the need to supply alternate water supply during certain improvements by maintaining existing components during installation. In order to install the new supply line to the atmospheric storage tank, the well supply line will need to be extended interior to the pump house building. The following picture aids in understanding the improvement:



The existing 2" diameter PVC line shall be extended to the left hand side of the picture, the existing meter shall be relocated toward the left to allow for installation of a new check valve and tee stub with a ball valve that will serve as the new supply location to the new atmospheric storage tank located approximately two feet to the left of the existing supply line location.

The existing Well #3 supply line is equipped with a pressure reducing valve (PRV) that has met its useful life. The following picture depicts the valve, which shall be replaced with a straight pipe run or a suitable cap on the existing tee to the PRV.



In addition, there will need to be improvements to the existing intake and discharge lines for the existing booster pumps. The following picture shows the basic configuration:



The header pipe on the bottom of the picture (nearest to the east wall of the pump house) is equipped with three intake pipes at 2" each with gate valves. The intake on the bottom left-hand corner of the picture represents the intake to the existing gas-driven pump, and the other two intake pipes serve the existing electric booster pumps. The new atmospheric storage tank discharge line will enter into the pump house and will be plumbed into the existing header pipe. This will require isolation of the existing atmospheric storage tank discharge and also from the hydropneumatic tank/distribution main. Since there are no valves in the current configuration, it is proposed to add insert valves on the existing atmospheric storage tank discharge as it enters the pump house, and an insert valve on the booster pump discharge line just prior to the connection with the hydropneumatic tank. This work is to be done during off-peak hours, and will isolate the area of plumbing installation to permit the work to commence.

The header pipe central to the picture is the discharge header. Each pump discharge is routed back to this header pipe, which ties into the 6" distribution main (far right-hand side of the picture). The individual discharge line to the header on the left-hand side of the picture is from the existing gas-driven pump. This will serve as the tie-in for the new bladder tank. The other two discharge lines will serve as the discharge lines for the new variable frequency drive pumps. The second insert valve discussed above will be placed at the end of this line close to the tie-in with the distribution main and the hydropneumatic tank.

All new interior plumbing shall be disinfected by swabbing or spraying with 1% hypochlorite solution in accordance with AWWA C-651.

The phasing notes on Sheet UT-1 of the plan set provide a procedure for limiting, inasmuch as possible, the downtime that may be experienced by the residents / system users. The contractor may offer alternative tasks in order to further minimize potential downtime.

3.6 Pressure / Leakage Testing and Disinfection

The new supply line and the new tank discharge line shall be pressure and leakage tested and the new supply line, the new tank discharge line and the new atmospheric storage tank shall be disinfected in accordance with the requirements on the plan set (refer to sheets UT-1 and CD-3).

The new supply line shall be installed with exception to the last fitting to the atmospheric storage tank, which will be completed following the pressure and leakage test. The pressure and leakage test shall commence in accordance with the requirements on the plan sheet. The new ball valve will be closed during the test to isolate the new line section. Disinfection for this section may also be performed simultaneous with the pressure and leakage test and in accordance with the requirements on the plan sheets. The final connection to the tank shall be made following acceptable test results. The final connection shall consist of the minimal fitting necessary to make the final connection, which shall be disinfected by swabbing or spraying with 1% hypochlorite solution.

The new tank discharge line shall be installed with exception to the fitting to the atmospheric storage tank, which will be completed following the pressure and leakage test. The pressure and leakage test shall commence in accordance with the requirements on the plan sheet. The new ball valve located just upstream of the header pipe connection will be closed during the test to isolate the new line section. Disinfection for this section may also be performed simultaneous with the pressure and leakage test and in accordance with the requirements on the plan sheets. The final connection to the tank shall be made following acceptable test results. The final connection shall consist of the minimal fitting necessary to make the final connection, which shall be disinfected by swabbing or spraying with 1% hypochlorite solution.

The new storage tank will be filled with chlorinated water to the overflow level per the requirements on the plan set and in accordance with AWWA C-652. The new tank discharge stub located in the pump house will serve as the outlet for draining the heavily chlorinated water.

The contractor will have the option of allowing the chlorine levels to dissipate over time, or introducing a reducing agent to reduce chlorine levels inasmuch as possible to 0.0 mg/L prior to discharge. This shall be coordinated with the design engineer and applies to line and tank discharge following the disinfection process.

Following successful pressure and leakage tests and disinfection, the tank shall be slowly filled by partially opening the new ball valve in the pump house to allow well water to fill the tank. Two or more successive sets of samples taken at the new sampling point in the well house, taken at 24-hour intervals, shall indicate microbiologically satisfactory water before the facility is placed into operation.

As the system is being switched over, the system operator shall coordinate notification to the residents with the Town of Beekman and the DCDBCH. Two additional sets of samples, taken downstream of all work performed, taken at 24-hour intervals, shall indicate microbiologically satisfactory water before the notification to the residents / system users is lifted.

Appendix A
Cut Sheets

APPROVAL DRAWING

RE: _____

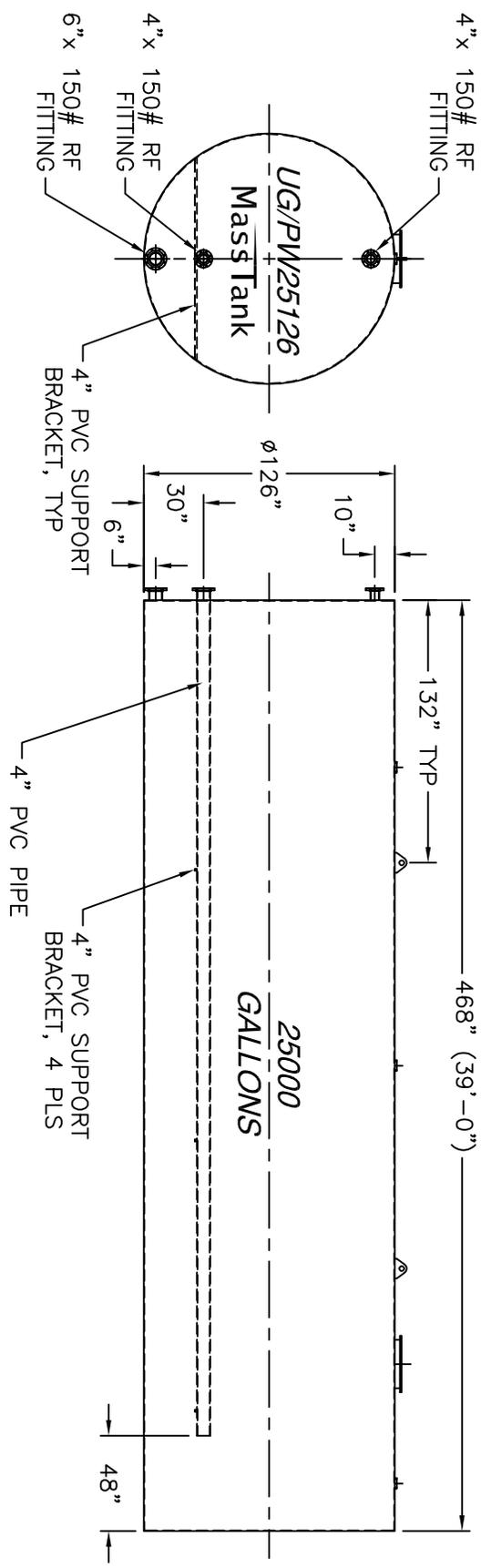
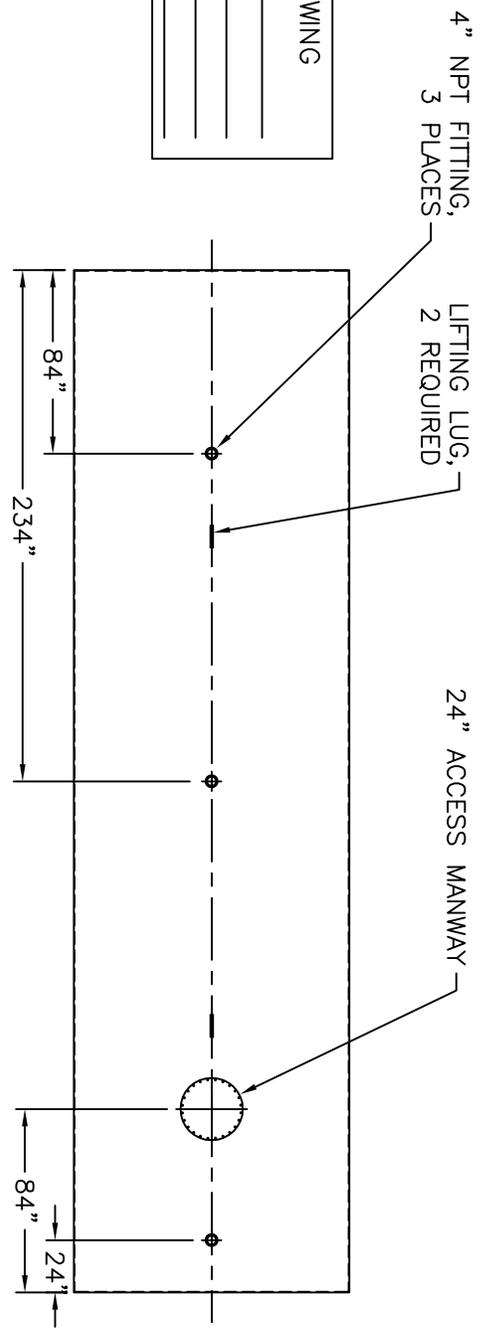
SO # 1

NAME: _____

COMPANY: _____

TITLE: _____

DATE: _____



NOTE: SAMPLE CUT SHEET - MANUFACTURER TO PROVIDE UPDATED CUT SHEET BASED ON DETAIL ON PLANS

NOTES:

- SINGLE-WALL TANK SHALL BE DESIGNED AND CONSTRUCTED IN GENERAL ACCORDANCE WITH UL 58 AND STANDARD CONSTRUCTION PRACTICES FOR POTABLE WATER TANKS
- RATED CAPACITY OF TANK SHALL BE: 25,000 GALLONS
- ESTIMATED WEIGHT OF TANK, EMPTY: 18,750 LBS
ESTIMATED WEIGHT, FULL OF WATER: 227,000 LBS
- EXTERIOR COATING: BLACK ASPHALTUM
- INTERNAL COATING: SEALKOTE HF
- ALL GUIDELINES FOR INSTALLATION PER N.F.P.A. 30 SHALL BE CARRIED OUT
- MAXIMUM BURIAL DEPTH: 5 FEET

25,000 GALLON WATER TANK

PROPRIETARY:

THIS DRAWING AND ALL INFORMATION CONTAINED THEREON IS CONSIDERED PROPRIETARY AND SHALL NOT BE REPRODUCED IN ANY WAY NOR BE USED FOR MANUFACTURING OR FABRICATION PURPOSES WITHOUT EXPRESSED WRITTEN PERMISSION FROM MASS TANK SALES CORPORATION (MASSTANK).

<p>MASS TANK SALES CORPORATION PHONE: (508) 947-8669 FAX: (508) 947-3342</p>		CUSTOMER: D & S PUMP		DESCRIPTION: UG/PW25126	
		FINISH: SEE NOTES		DRAWN BY: BGJ	
SCALE: 1:90 (1"=90")		CHECKED BY: -		DATE: -	
DRAWING TYPE: APPROVAL		SIZE: A		JOB NO.: -	
SHEET NO.: 1 OF 1		REVISION: 1		DATE: -	

Valve Insertion or Line Stopping Made Even Easier! 1 Machine, 2 Functions



SUBMITTAL

PROJECT: _____

DATE: _____

LOCATION: _____

- 14,000 Successful Installations Worldwide
- Meets or Exceeds AWWA C-509-01 and C-509-09 Standards
- Only One Excavation
- One Hour or Less Installation
- All Ductile Iron Valve with Stainless Steel Fasteners
- Resilient Wedge Gate
- Expands to Seal Even Heavily Tuberculated Pipe!
- Rated at 250 P.S.I.
- No Loss of Pipe Integrity
- Sizes 4" - 16"

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Advanced Valve Technologies, Inc.

The EZ₂™ Process

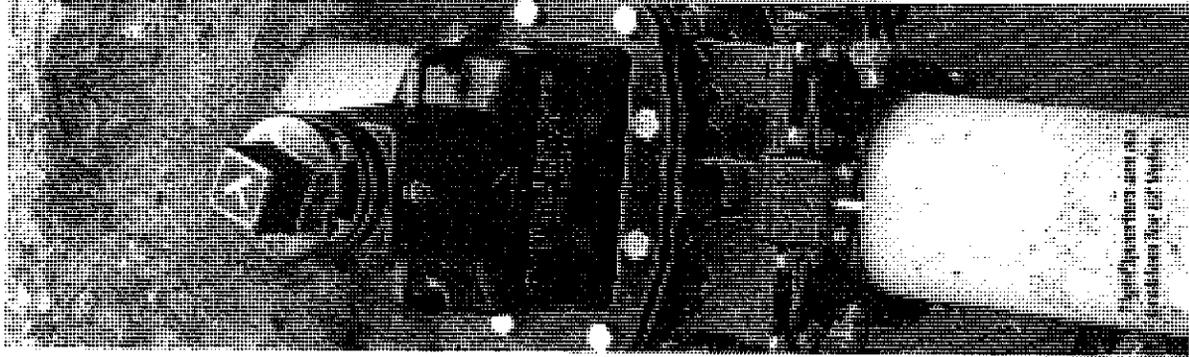
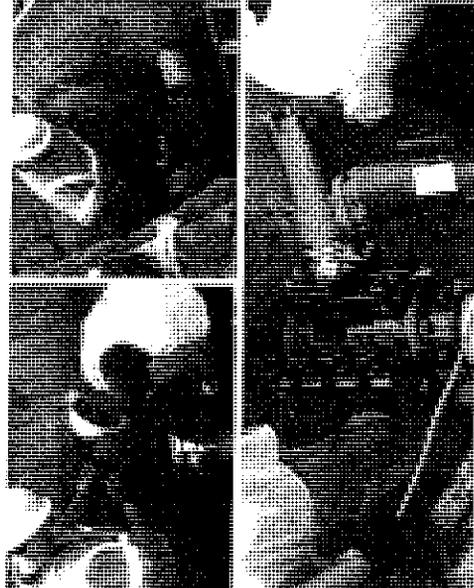
The EZ₂™ system was developed to provide important performance and installation benefits to professionals working under difficult conditions and with critical needs.

Advanced Valve Technologies delivers

- High quality components meeting industry standards (AWWA material spec C-509-09)
- Rapid installation procedures (reduced field-work hours)
- Single excavation performance
- Standardized operation (normal turns to actuate valve)
- Compact design (lower weights; simpler lifting equipment)
- Pipe-line integrity maintenance (no sectional or circumferential pipe intrusion, only a milled slot with no coupon drop)
- Lightweight and compact installation equipment
- No service interruption (process is completed under pressure)
- Sizes available for 4 inch through 16 inch systems

Plus —

- Integral isolation valve and
- "Take It or Leave It" Valve bonnet design lets you choose to retain the insertion valve operation or temporarily create a line stop; the bonnet may be used for multiple projects.



Super Pipe™ valves are the backbone for EZ₂™.

The EZ₂™ System

EM Machine (End Mill) Temporarily mounts in place of valve bonnet and features field-replaceable cutting blades available in pneumatic, hydraulic or electric drives



Actuator Standard number of turns to open and close valve

Removable Valve Bonnet Resilient wedge and actuation mechanism are contained for easy installation or removal

Double Seal Gaskets Maintain system pressure while allowing rotation of casting assembly during slot-milling

Fasteners Stainless steel components secure casting assembly and provide final positioning on pipe

Pipeline Compatibility The EZ₂™ design works with all common and many uncommon pipe materials. Consult AVT for details.

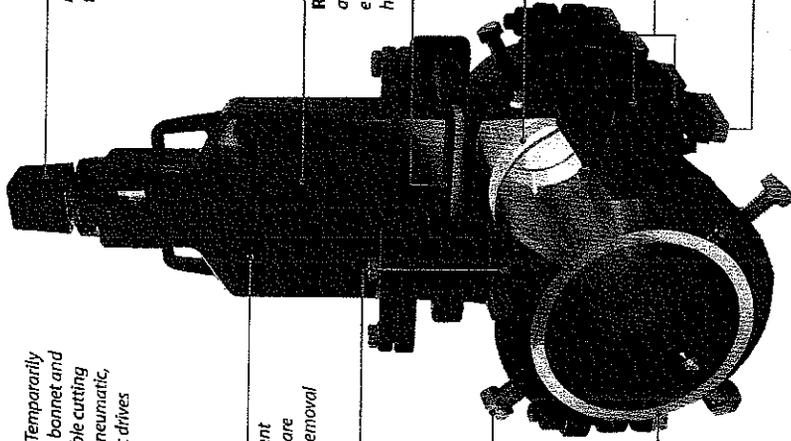
Resilient Wedge. A wedge valve or a ductile iron component that effectively seals even tuberculated host pipe

Integral Isolation Valve Provides "under pressure" installation or removal of valve bonnets or blind flanges

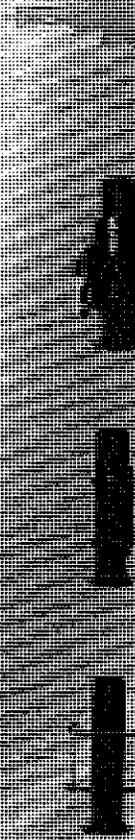
Insertion Slot 1-5/8 inch slot covers a 120° path maintains pipe integrity and creates wide valve access

Castings Ductile iron castings precision machined to fit project specifications and pipe material

Sacrificial Anode for cathodic protection



Rapid and



The EZ²™ System

EM Machine (End Mill) Temporarily mounts in place of valve bonnet and features field-replaceable cutting blades available in pneumatic, hydraulic or electric drives



Removable Valve Bonnet Resilient wedge and actuation mechanism are contained for easy installation or removal

Double Seal Gaskets Maintain system pressure while allowing rotation of casting assembly during slot-milling

Fasteners Stainless steel components secure casting assembly and provide final positioning on pipe

Pipeline Compatibility The EZ²™ design works with all common and many uncommon pipe materials. Consult AVT for details.

Installation
Fast and
Convenient

Performance
Meets Industry
Standards

Quality
Precision
Engineered

Design
Unique
Concept

Versatility
One System,
Two Functions

Environment
Single Excavation
and Low Profile

Both the final EZ² assembly and the installation equipment kit have been developed to be lighter and more compact than alternative methods. The result: quick and sure installations in record times. It's faster and easier, with fewer steps than older methods such as shutdowns and line stops.

The ductile iron castings, corrosion resistant coatings, and stainless steel fasteners incorporated in the EZ² system have been carefully chosen and tested to deliver reliable and trouble-free service. EZ² materials meet AWWA C-509-09 standards.

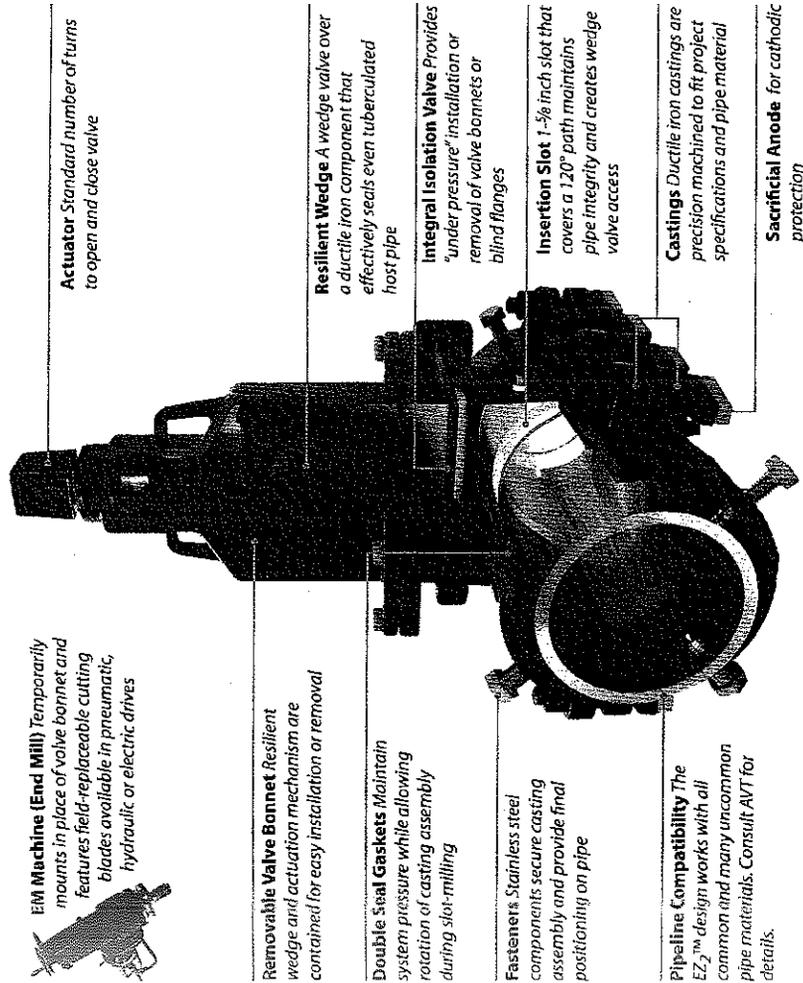
EZ² components are manufactured and matched to deliver repeatable and dependable service. A complete insertion valve assembly can be created to meet your non-standard application or non-typical pipe material. Consult AVT for special projects.

An EZ² assembly maintains pipe integrity while providing an easy-to-install, easy-to-use and easy-to-adapt solution. The full encirclement ductile iron casing design, narrow access resilient wedge valve, integral isolation valve and removable bonnet deliver field-elective operating options.

The "Take It or Leave It"SM valve bonnet feature provides the flexibility to either insert a permanent, high quality valve or temporarily use EZ² for an economical and single excavation line stop.

EZ² installs under pressure and in one excavation eliminating expensive multiple excavations. Faster installation times save man-hours while avoiding residential and business disruption to your system.

In comparison to traditional line stop equipment, EZ²'s low-profile design usually permits plating over to keep traffic moving instead of requiring alternative routing and the attendant costs.



Actuator Standard number of turns to open and close valve

Resilient Wedge A Wedge valve over a ductile iron component that effectively seals even tuberculated host pipe

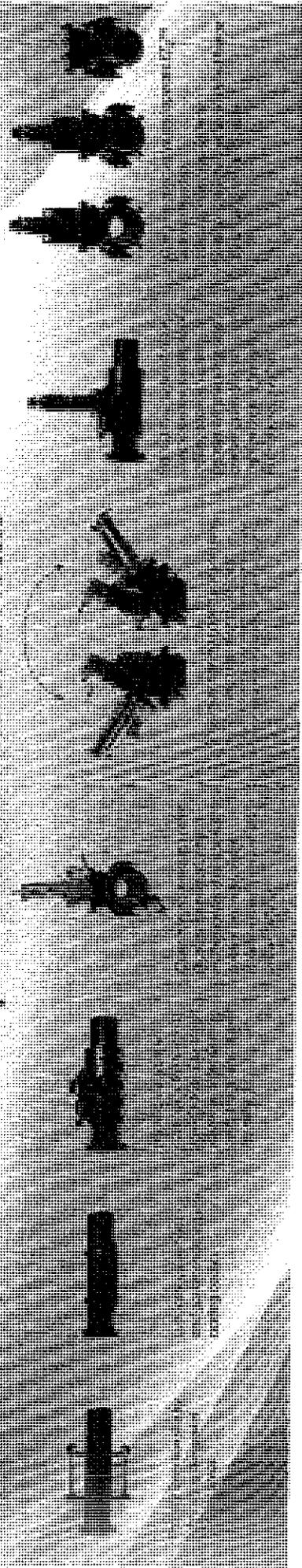
Integral Isolation Valve Provides "under pressure" installation or removal of valve bonnets or blind flanges

Insertion Slot 1-3/8 inch slot that covers a 120° path maintains pipe integrity and creates wedge valve access

Castings Ductile iron castings are precision machined to fit project specifications and pipe material

Sacrificial Anode for cathodic protection

Rapid and Reliable Installation Process



EZ₂TM Benefits

Installation

*Fast and
Convenient*

Both the final EZ₂ assembly and the installation equipment kit have been developed to be lighter and more compact than alternative methods. The result: quick and sure installations in record times. It's faster and easier, with fewer steps than older methods such as shutdowns and line stops.

Performance

*Meets Industry
Standards*

The ductile iron castings, corrosion resistant coatings, and stainless steel fasteners incorporated in the EZ₂ system have been carefully chosen and tested to deliver reliable and trouble-free service. EZ₂ materials meet AWWA C-509-09 standards.

Quality

*Precision
Engineered*

EZ₂ components are manufactured and matched to deliver repeatable and dependable service. A complete insertion valve assembly can be created to meet your non-standard application or non-typical pipe material. Consult AVT for special projects.

Design

*Unique
Concept*

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Versatility

*One System,
Two Functions*

The "Take it or Leave It"SM valve bonnet feature provides the flexibility to either insert a permanent, high quality valve or temporarily use EZ₂ for an economical and single excavation line stop.

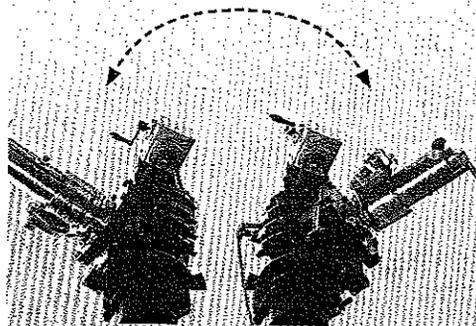
Environment

*Single Excavation
and Low Profile*

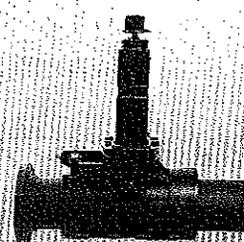
EZ₂ installs under pressure and in one excavation eliminating expensive multiple excavations. Faster installation times save man-hours while avoiding residential and business disruption to your system.

In comparison to traditional line stop equipment, EZ₂'s low-profile design usually permits plating over to keep traffic moving instead of requiring alternative routing and the attendant costs.

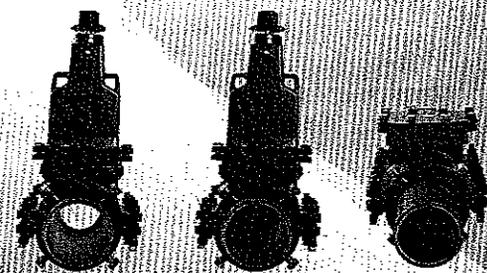
Installation Process



*While maintaining system line pressure, mill 1-5/8 inch slot over a 120° path.
Note: Slot is normally cut to provide for a vertical valve alignment, but installer can select any desired position.*



Retract milling head, close isolation valve, and replace milling tool with valve bonnet; remove rotational control assembly and tighten casting fasteners to final torque values.



*Open isolation valve and operate EZ₂TM valve as needed.
For Line Stop Applications: Replace valve bonnet with a blind flange by utilizing isolation valve.*

Series 6500

Bell Restraint Harness for IPS O.D. (Class) PVC Pipe
Split Serrated Restraint Rings on Both Sides of the Bell
U.S. Patent No. 4,568,112

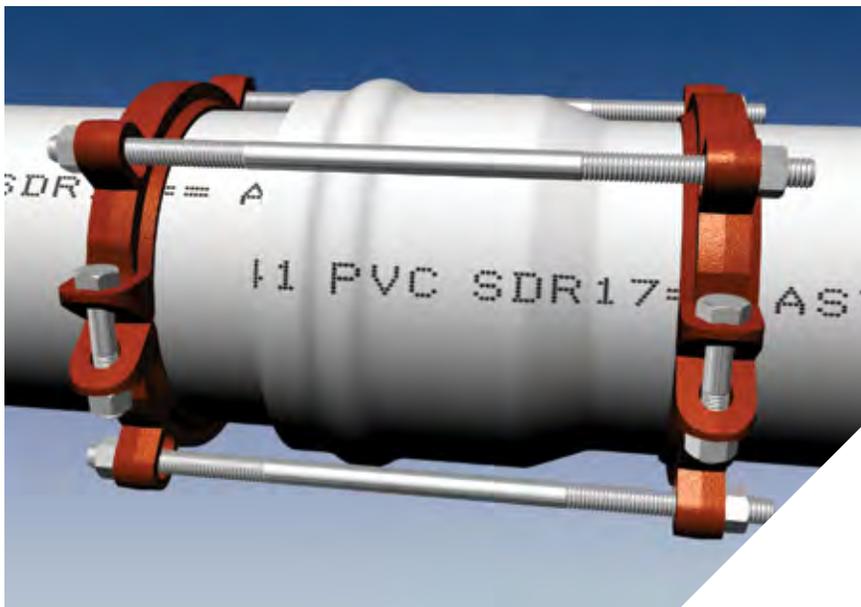


Image depicts Series 6510 on 10 inch IPS PVC Pipe.

Features and Applications:

- For use on IPS O.D. (Class) ASTM D2241 PVC Pipe Systems
- Minimum 2 to 1 Safety Factor
- **MEGA-BOND®** Restraint Coating System
For more on MEGA-BOND refer to www.ebaa.com
- Split design for ease of installation
- Constructed of ASTM A536 Ductile Iron

For use on water or wastewater pipelines subject to hydrostatic pressure and tested in accordance with either AWWA C600, C605, or ASTM D2774.

Nominal Pipe Size	Series Number	Approximate Shipping Weight	Pressure Ratings (PSI)		
			SDR17	SDR21	SDR26
2	6502	5.40	250	200	160
2½	650250	5.80	250	200	160
3	6503	6.20	250	200	160
4	6504	27.40	250	200	160
6	6506	29.04	250	200	160
8	6508	43.29	250	200	160
10	6510	70.00	200	200	160
12	6512	83.60	200	200	160

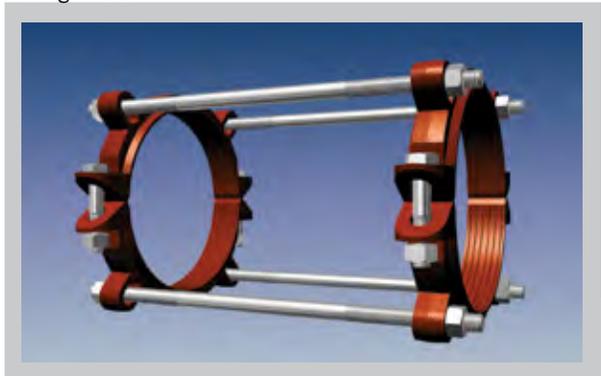
NOTE: For applications or pressures not shown, please contact EBAA for assistance. This rating applies to pipe of PVC material per ASTM D2241.

For Restraint of IPS PVC Fittings, see our **Series 7500**

Sample Specification

Restraint for ASTM D2241 pipe bells shall consist of the following: The restraint shall be manufactured of ductile iron conforming to ASTM A536. A split serrated ring shall be utilized behind the pipe bell. A split serrated ring shall be used to grip the pipe, and a sufficient number of bolts shall be used to connect the bell ring to the gripping ring. The restraint devices shall be coated using MEGA-BOND®. (For complete specifications on MEGA-BOND visit www.ebaa.com). The restraint shall be the Series 6500, as manufactured by EBAA Iron, Inc., or approved equal.

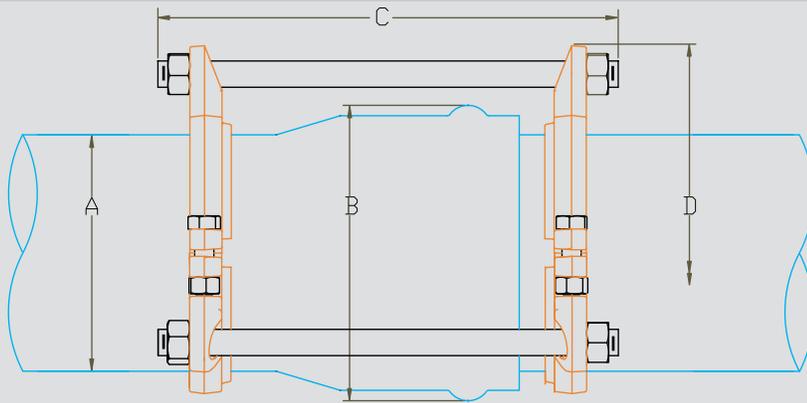
Packaged Items



Series 6500 Submittal Reference Drawing

EBAA IRON

MADE IN USA



Nominal Pipe Size	Series Number	A Pipe O.D.	B Maximum Bell O.D. Cleared	C Overall Length	D Max. Restraint O.D. (Casing Clearance)	Thrust Bolt (Number - Size)
2	6502	2.38	3.56	12	5.57	2 - 5/8 x 12
2½	650250	2.88	4.08	12	6.07	2 - 5/8 x 12
3	6503	3.50	5.01	12	7.01	2 - 5/8 x 12
4	6504	4.50	6.98	18	10.00	2 - 3/4 x 18
6	6506	6.63	9.61	18	12.25	2 - 3/4 x 18
8	6508	8.63	12.50	18	15.66	2 - 3/4 x 18
10	6510	10.75	15.25	22	17.38	4 - 3/4 x 22
12	6512	12.75	17.75	22	20.00	4 - 3/4 x 22

NOTE: Dimensions are in inches and are subject to change without notice.

Installation Instructions

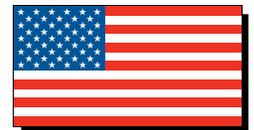


The Series 6500 is designed for restraining push-on, ASTM D2241 PVC pipe bells. It has a split, serrated restraint ring on the spigot and a split serrated ring behind the bell.

- Assemble the push-on joint per the pipe manufacturer's instructions.
- Install both halves of the serrated bell ring behind the bell, tapping each half into place. Make sure the complete ID of the ring is touching the pipe before installing the side bolts. Install the side bolts and tighten evenly. (40-45 ft-lbs on 2 through 3 inch, 60 ft-lbs on 4 and 6 inch, 110 ft-lbs on 8 through 12 inch)
- Remove the side bolts from the second serrated restraint ring. Use the tie bolts to determine the proper location of the restraint ring on the spigot. Allow enough room on the tie bolt to fully engage the nuts.



- Install both halves of the restraint ring at the proper location, tapping each half into place. Make sure that the complete ID of the ring is touching the pipe before installing the side bolts. Install the side bolts and tighten evenly. (40-45 ft-lbs on 2 through 3 inch, 60 ft-lbs on 4 and 6 inch, 110 ft-lbs on 8 through 12 inch)
- Place nuts on the tie bolts and tighten until they are snug. Allow enough room on the tie bolt to fully engage the nut with several threads showing. Do not tighten these bolts enough to force the spigot further into the bell of the joint.



EBAA IRON Sales, Inc.
 P.O. Box 857, Eastland, TX 76448
 Tel: (254) 629-1731
 Fax: (254) 629-8931
 (800) 433-1716 within US and Canada
 contact@ebaa.com
 www.ebaa.com

Series 7500

Restraint for IPS O.D. (Class) PVC Pipe at PVC Fittings

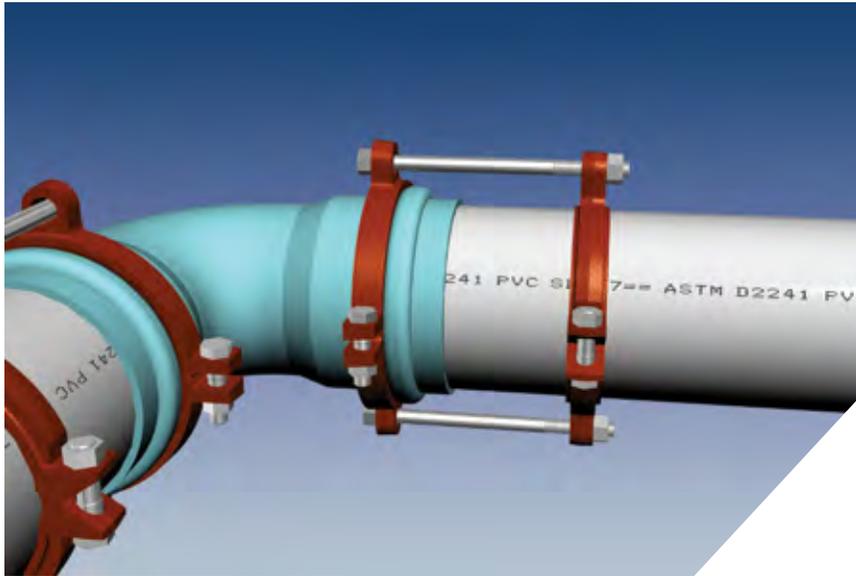


Image depicts Series 7508 on 8 inch IPS PVC pipe at molded PVC fitting.

Features and Applications:

- For use on IPS O.D. (Class) ASTM D2241 PVC pipe systems using molded PVC fittings.
- MEGA-BOND® Restraint Coating System For more information, refer to www.ebaa.com
- Minimum 2 to 1 Safety Factor
- Split design for ease of installation
- Constructed of ASTM A536 Ductile Iron

For use on water or wastewater pipelines subject to hydrostatic pressure and tested in accordance with either AWWA C600, C605, or ASTM D2774.

Nominal Pipe Size	Series Number	Approx. Weight	Pressure Ratings (PSI)		
			SDR17	SDR21	SDR26
2	7502	5.40	250	200	160
2½	750250	5.80	250	200	160
3	7503	6.20	250	200	160
4	7504	22.52	250	200	160
6	7506	25.56	250	200	160
8	7508	35.20	250	200	160

NOTE: For applications or pressures other than those shown, please contact EBAA for assistance.

Sample Specification

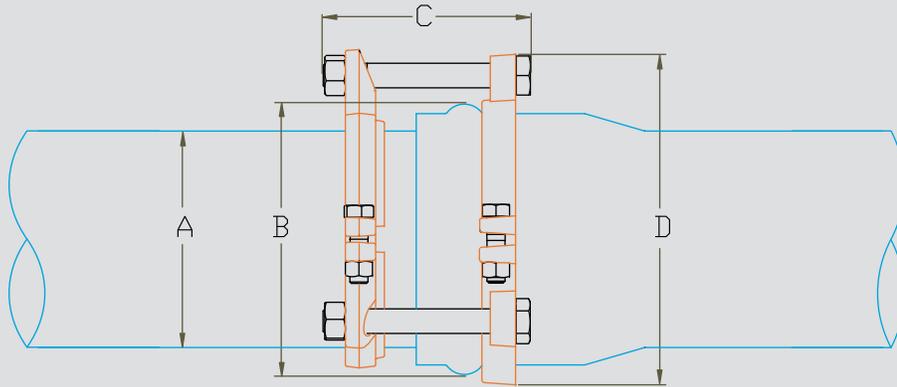
Restraint of molded PVC fittings on IPS O.D. PVC pipe (ASTM D2241) shall consist of the following: The restraint shall be manufactured of ductile iron conforming to ASTM A536. The restraint devices shall be coated using MEGA-BOND®. (For complete specifications on MEGA-BOND visit www.ebaa.com.) A split, non-serrated ring shall be utilized on the fitting bell. A split, serrated ring shall be used to grip the pipe, and a sufficient number of bolts shall be used to connect the bell ring to the gripping ring. The restraint shall be the Series 7500, as manufactured by EBAA Iron, Inc., or approved equal.



Series 7500 Submittal Reference Drawing

EBAA IRON

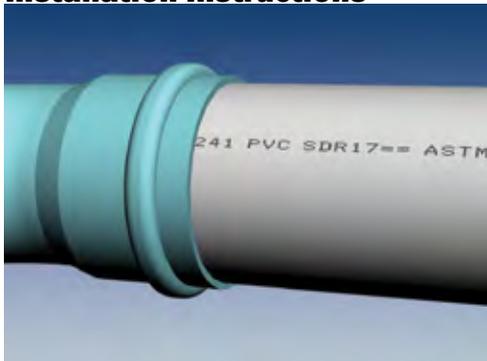
MADE IN USA



Nominal Pipe Size	Series Number	A Pipe O.D.	B Maximum Bell O.D. Cleared	C Overall Length	D Max. Restraint O.D. (Casing Clearance)	Thrust Bolt (Number - Size)
2	7502	2.38	3.56	5½	5.81	2 - 5/8 x 5½
2½	750250	2.88	4.08	5½	6.32	2 - 5/8 x 5½
3	7503	3.50	5.01	5½	7.26	2 - 5/8 x 5½
4	7504	4.50	6.98	7	10.1	2 - 3/4 x 7
6	7506	6.63	9.61	7	12.6	2 - 3/4 x 7
8	7508	8.63	12.50	13	14.56	3 - 3/4 x 13

NOTE: Dimensions are in inches and are subject to change without notice.

Installation Instructions



The Series 7500 is designed for restraining ASTM D2241 PVC pipe to molded PVC fittings. It has a split, serrated restraint ring on the spigot and a split non-serrated ring on the fitting.

1. Assemble the fitting per the fitting manufacturer's instructions.



2. Install both halves of the split non-serrated bell ring on the fitting behind the gasket hump. Install the side bolts and tighten each evenly to 110 ft-lbs of torque. (40 ft-lbs on 2 inch through 3 inch, 60 ft-lbs on 4 inch through 6 inch)

3. Slide the bell ring toward the gasket hump so that it fits snugly behind the gasket hump.



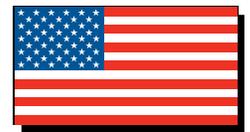
4. Remove the side bolts from the serrated restraint ring. Use the tie bolts to determine the proper location of the restraint ring on the spigot. Allow enough room on the tie bolt to fully engage the nuts.



5. Install both halves of the restraint ring at the proper location, tapping each half into place. Make sure that the complete ID of the ring is touching the pipe before installing the side bolts. Tighten the side bolts evenly to 110 ft-lbs of torque. (40 ft-lbs on 2 inch through 3 inch, 60 ft-lbs on 4 inch through 6 inch)



6. Place nuts on the tie bolts and tighten until they are snug. Allow enough room on the tie bolt to fully engage the nut with several threads showing. Do not tighten these bolts enough to force the spigot further into the bell of the fitting.



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Fax: (254) 629-8931

(800) 433-1716 within US and Canada

contact@ebaa.com

www.ebaa.com

Customer	Date	12/18/2018
Contact	Project	
Phone number	Project no.	
Email		



22SV4GJ4F60

Operating data

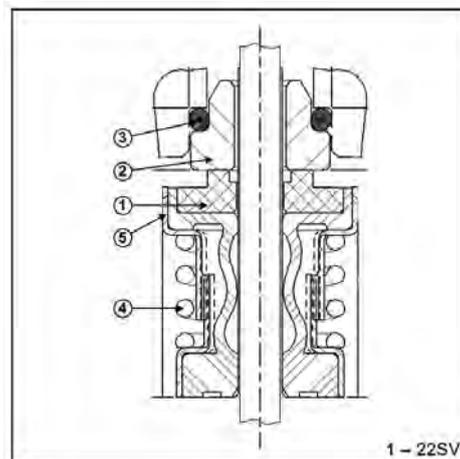
Pump type	Multi-Stage Pumps	Fluid	Water
No. of pumps / Reserve	1 / 0	Operating temperature t A	°F 39.2
Nominal flow	US g.p.m. 85.02	pH-value at t A	7
Nominal head	ft 190	Density at t A	lb/ft ³ 62.4
Static head	ft 0	Kin. viscosity at t A	ft ² /s 1.689E-5
Inlet pressure	psi 0	Vapor pressure at t A	psi 14.5
Environmental temperature	°F 68	Solids	0
Available system NPSH	ft 0	Altitude	ft 0

Pump data

Make	Goulds Water Technology	Nominal	US g.p.m. 95.7 (95.7)
Speed	rpm 3500	Flow	Max- US g.p.m. 148.3
Number of stages	4		Min- US g.p.m.
Max. casing pressure	psi	Head	Nominal ft 240.9
Max. working pressure	psi 121.2		at Qmax ft 139.9
Head H(Q=0)	ft 280		at Qmin ft 279.5
Weight	lb 267	Shaft power	hp 8 (8)
	Max. inch 0	Max. shaft power	hp 9.5
Impeller R	designed inch 0	Efficiency	% 71.29
	Min. inch 0	NPSH 3%	ft 8.3

Shaft Seal

Single Seal	Xylem
Mechanical Seals	
1 - Rotating Face	Carbon
2 - Stationary Face	Silicon Carbide Graphite Filled
3 - Elastomers	Viton
4 - Spring	316SS
5 - Metal Components	316SS



Motor data

Manufacturer	Baldor	Electric voltage	230 V	Speed	3500 rpm	Insulation class	F
Specific design	3ph TPE			Frame size	215TC	Colour	RAL 5010
Type	208-230/460V 215TC (V12A32E5BE2S)			Degree of protection	IP 55		
Rated power	10 hp	Electric current	23.6 A				

Remarks:

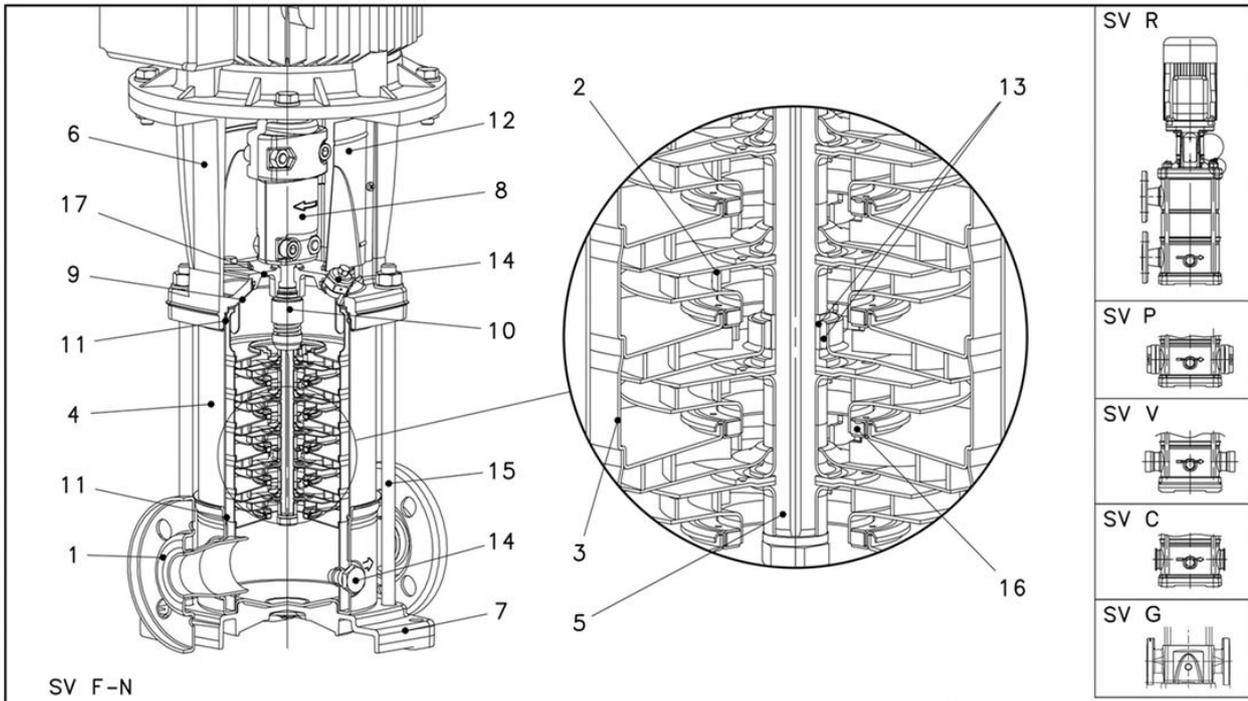
Customer	Date	12/18/2018
Contact	Project	
Phone number	Project no.	
Email		

22SV4GJ4F60



Pump Materials

1 - Pump Body	Cast Iron (ASTM Class 35/40B)
2 - Impeller	Stainless Steel (AISI 304)
3 - Diffuser	Stainless Steel (AISI 304)
4 - Casing	Stainless Steel (AISI 316L)
5 - Shaft	Stainless Steel (AISI 316)
6 - Adapter	Cast Iron (ASTM Class 35/40B)
7 - Base	N/A
8 - Coupling	Aluminum (A384.0-F)
9 - Seal Plate	Stainless Steel (AISI 316L)
12 - Coupling Guard	Stainless Steel (AISI 304)
13 - Shaft Sleeve and Bushing	Tungsten carbide
14 - Fill/Drain Plugs	Stainless Steel (AISI 316)
15 - Tie Rods	Carbon Steel / Zinc Plated (A29 Gr. 1045)
16 - Wear Ring	PPS
17 - Seal Gland	Stainless Steel (AISI 316)



Remarks:

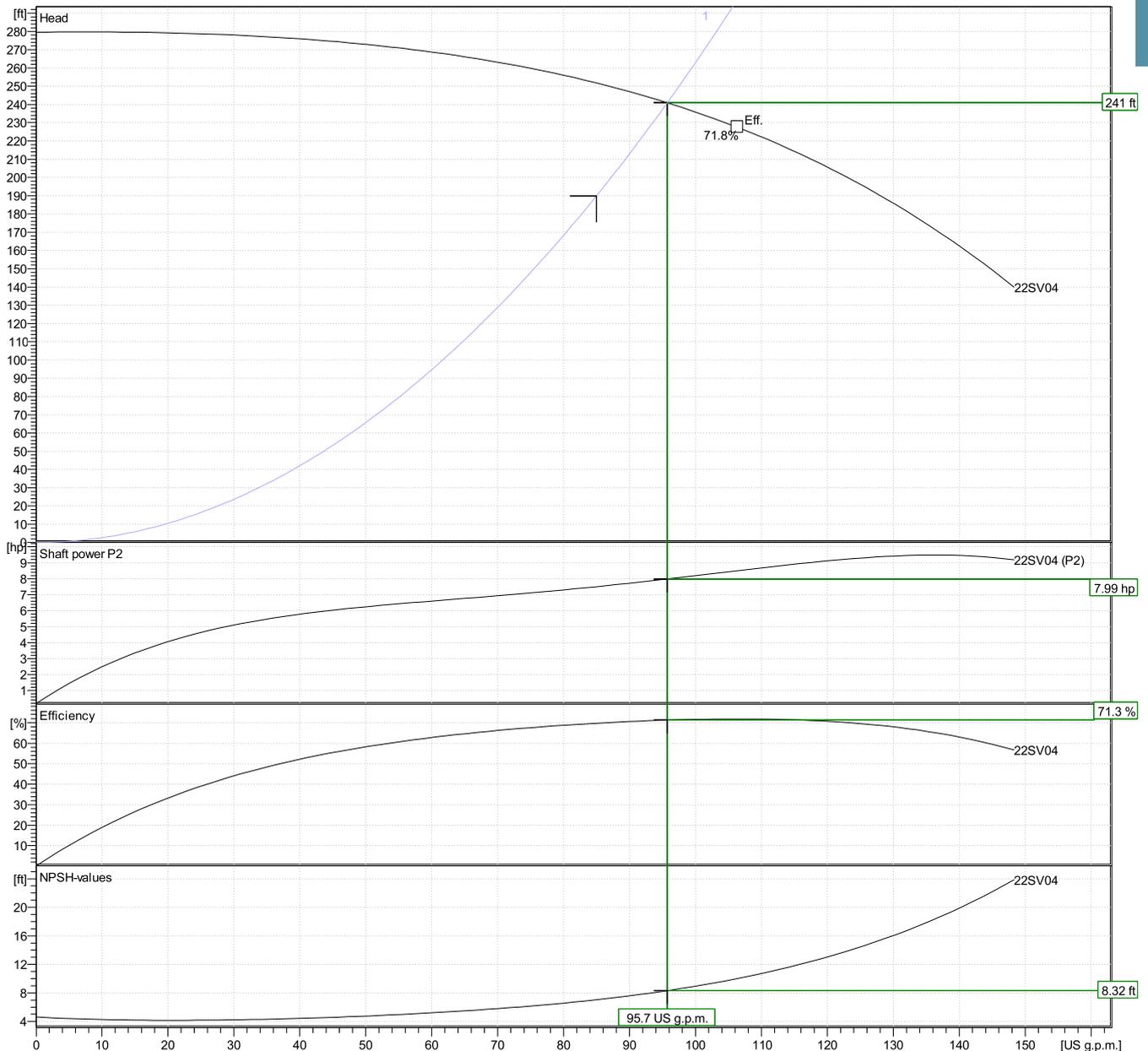
Customer	Date	12/18/2018
Contact	Project	
Phone number	Project no.	
Email		

22SV4GJ4F60

Hydraulic Data

Operating Data Specification		Hydraulic data (duty point)		Impeller design	
Flow	85 US g.p.m.	Flow	95.7 US g.p.m.	Impeller R	"
Head	190 ft	Head	241 ft	Frequency	60 Hz
Static head	0 ft			Speed	3500 rpm

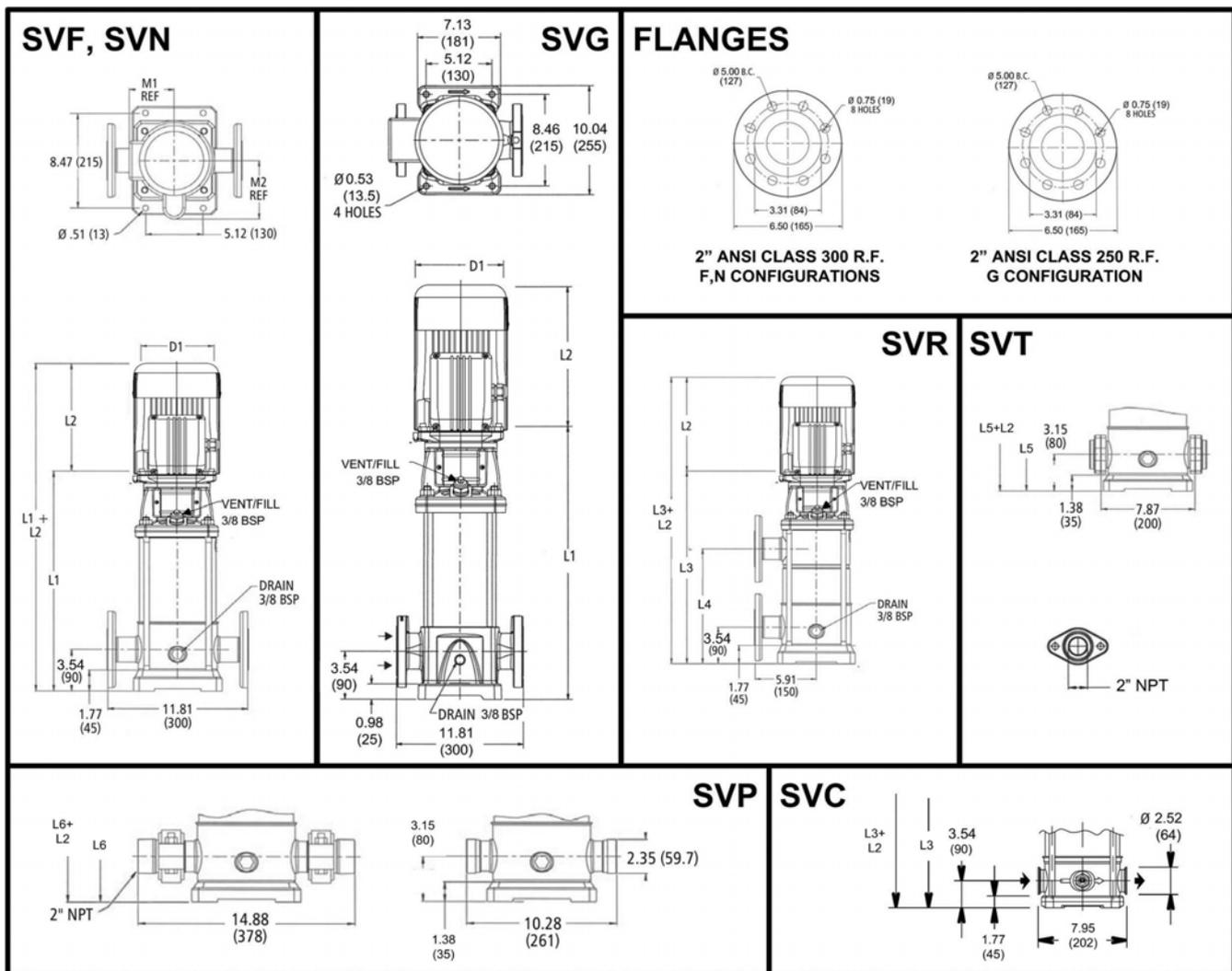
Power data referred to:
 Water [100%] ; 39.2°F; 62.4lb/ft³; 1.69E-5ft²/s
 Performance according to ISO 9906 - Annex A



Customer	Date	12/18/2018
Contact	Project	
Phone number	Project no.	
Email		

22SV4GJ4F60

Drawing



Dimensions inch

D1 max	10 ¹ / ₄	NEMA Frame	215TC			Weight	
D2	9 ¹ / ₁₆					266.87	lb
L1	23 ¹ / ₁₆						
L2	15 ¹ / ₄						
L3	23 ¹ / ₁₆						
L4	11 ¹ / ₈						
L5	22 ¹ / ₁₆						
L6	22 ¹ / ₁₆						
M. Ref	9 ³ / ₁₆						



WELL-X-TROL®

Diaphragm Well Tanks: WX-400C Series ASME

300 PSIG Working Pressure

Construction

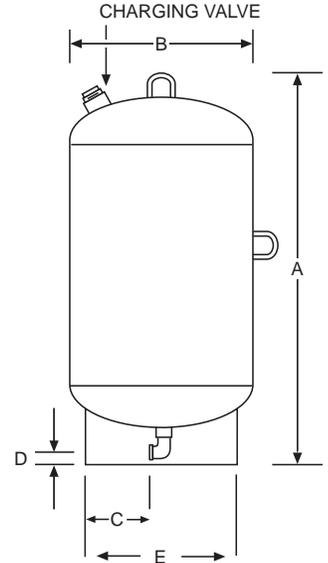
Shell	ASME Approved Steel
Diaphragm	Heavy Duty Butyl
Liner	Antimicrobial
System Connection	Malleable Iron (NPTF)
Finish	Red Oxide Primer
Water Circulator	Turbulator™
Air Valve	Schrader Valve w/EPDM Seats
Factory Precharge	25 PSIG (1.7 bar)

Performance

Maximum Operating Temperature	200°F (93°C)
Maximum Working Pressure	300 PSIG (20.7 bar)
Warranty	1 Year

Application

- For use in commercial well water and booster pump systems.
- Fixed diaphragm construction.
- Designed and constructed per ASME Code Section VIII, Division 1.
- Sight glass and seismic restraint options available.



ASME Models

Model Number	Tank Volume		Max. Accept. Volume		A Tank Height		B Tank Diameter		C Sys. Conn. Inset		D Sys. Conn. Centerline		E Stand Diameter		System Conn. (NPTF)	Shipping Weight	
	Gal	Lit	Gal	Lit	In	mm	In	mm	In	mm	In	mm	In	mm		Lbs	Kg
WX-401C	18	68	11	42	31	787	16	406	5	124	1½	38	12¾	324	1	133	60
WX-402C	25	95	11	42	40	1016	16	406	5	124	1½	38	12¾	324	1	160	73
WX-403C	34	129	11	42	49	1245	16	406	5	124	1½	38	12¾	324	1	200	91
WX-404C	68	258	34	129	48	1219	24	610	6	159	1⅝	41	16	406	1¼	432	196
WX-405C	90	341	34	129	59	1499	24	610	6	159	1⅝	41	16	406	1¼	460	209
WX-406C	110	417	34	129	70	1778	24	610	6	159	1⅝	41	16	406	1¼	500	227
WX-407C	132	500	46	175	57	1448	30	762	10	254	1¾	44	24	610	1¼	625	284

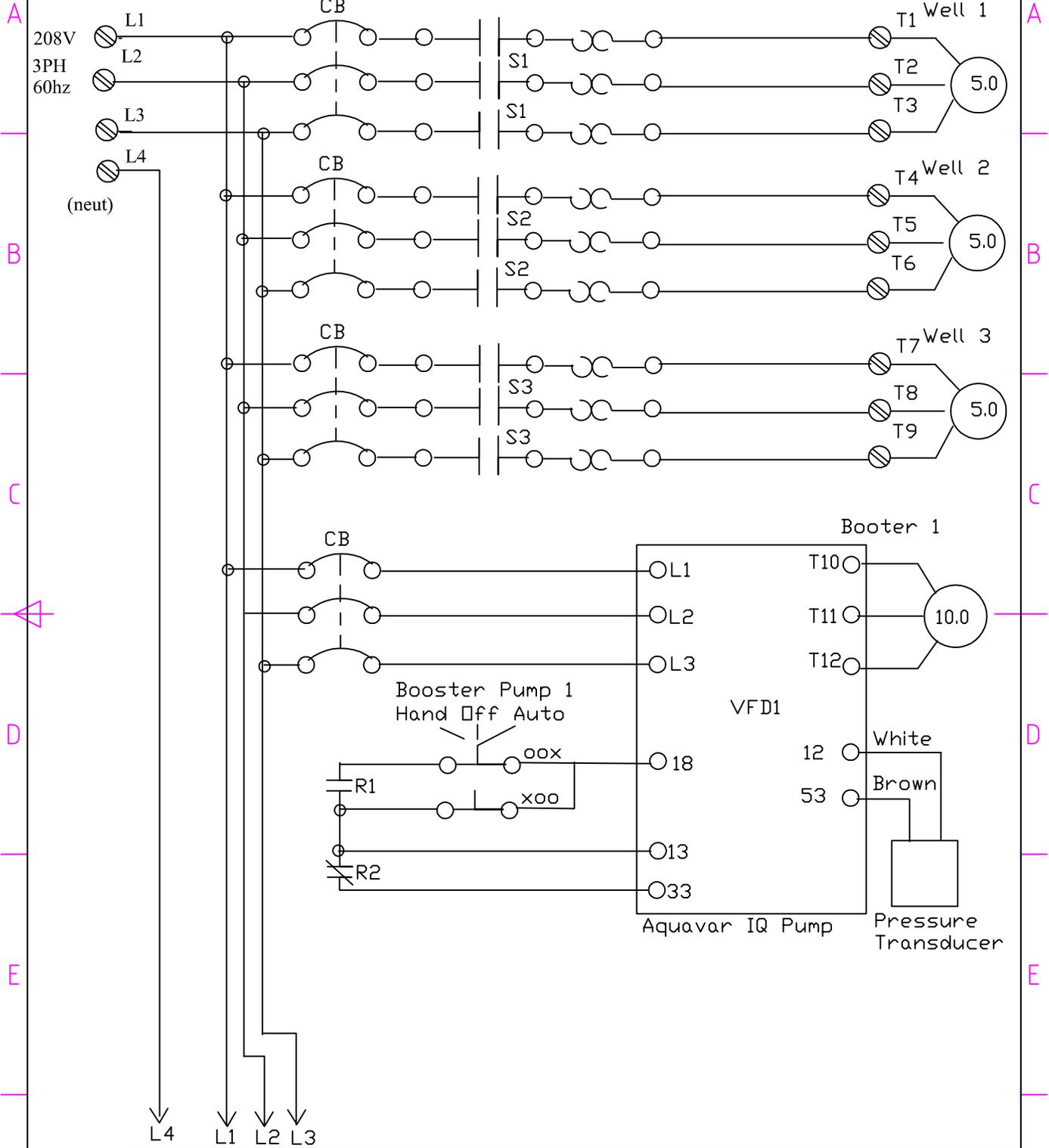
All dimensions and weights are approximate.

Job Name _____	Notes _____
Engineer _____	_____
Contractor _____	_____
P.O. No. _____	_____
Sales Rep. _____	_____
Model No. _____	_____



Note- if high leg present, connect to L2.

Control Circuit Power Supply



Itemref	Quantity	Title/Name, designation, material, dimension etc	Article No./Reference
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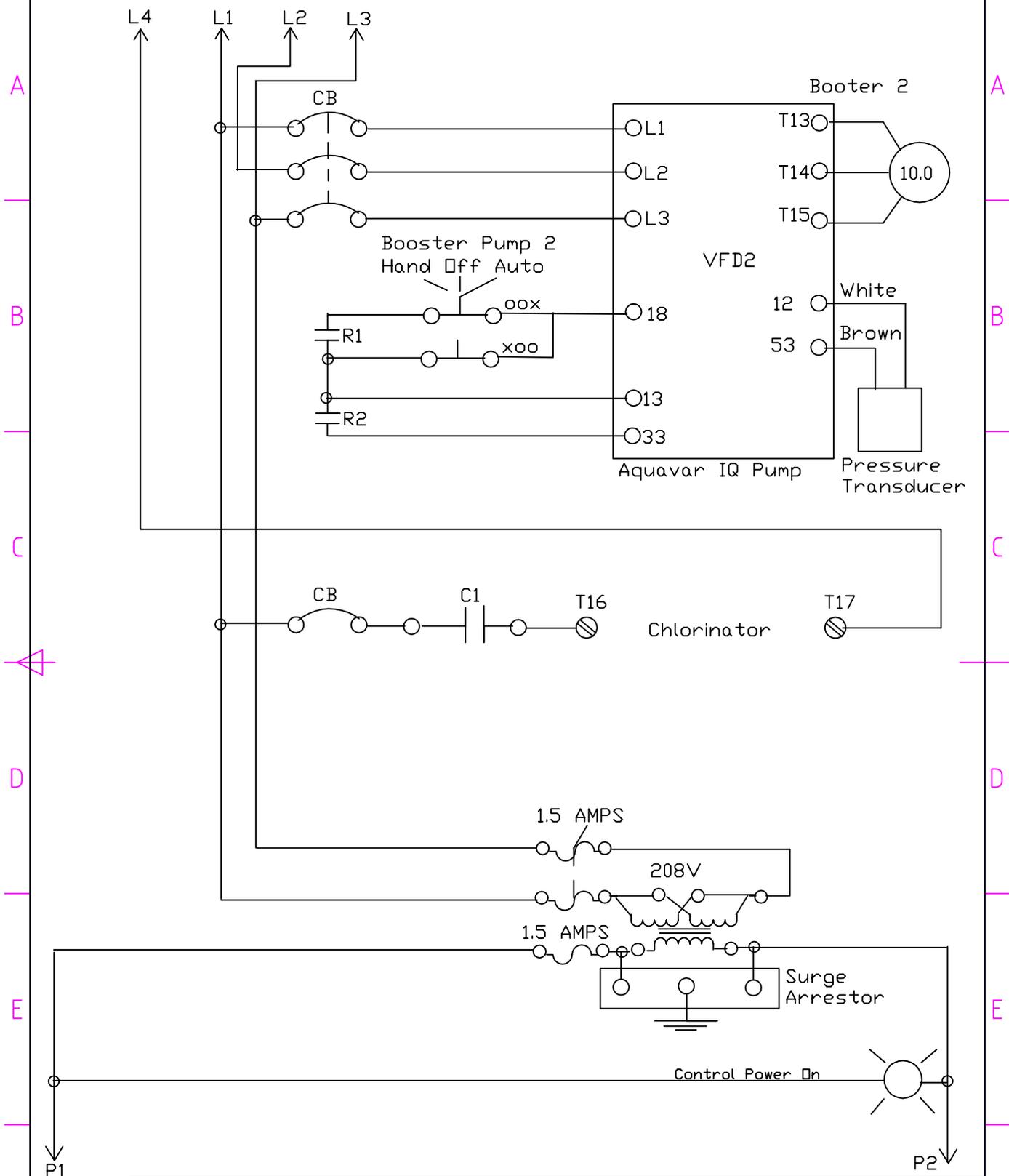
Designed by pdh	Checked by pdh	Approved by - date 12/29/18	File name 175-495 pg 1	Date 12/29/18	Scale 1:1
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Dover Ridge Water- Beekman

175-495	Edition 0	Sheet 1/5
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1	2	3	4
RevNo	Revision note	Date	Signature
			Checked

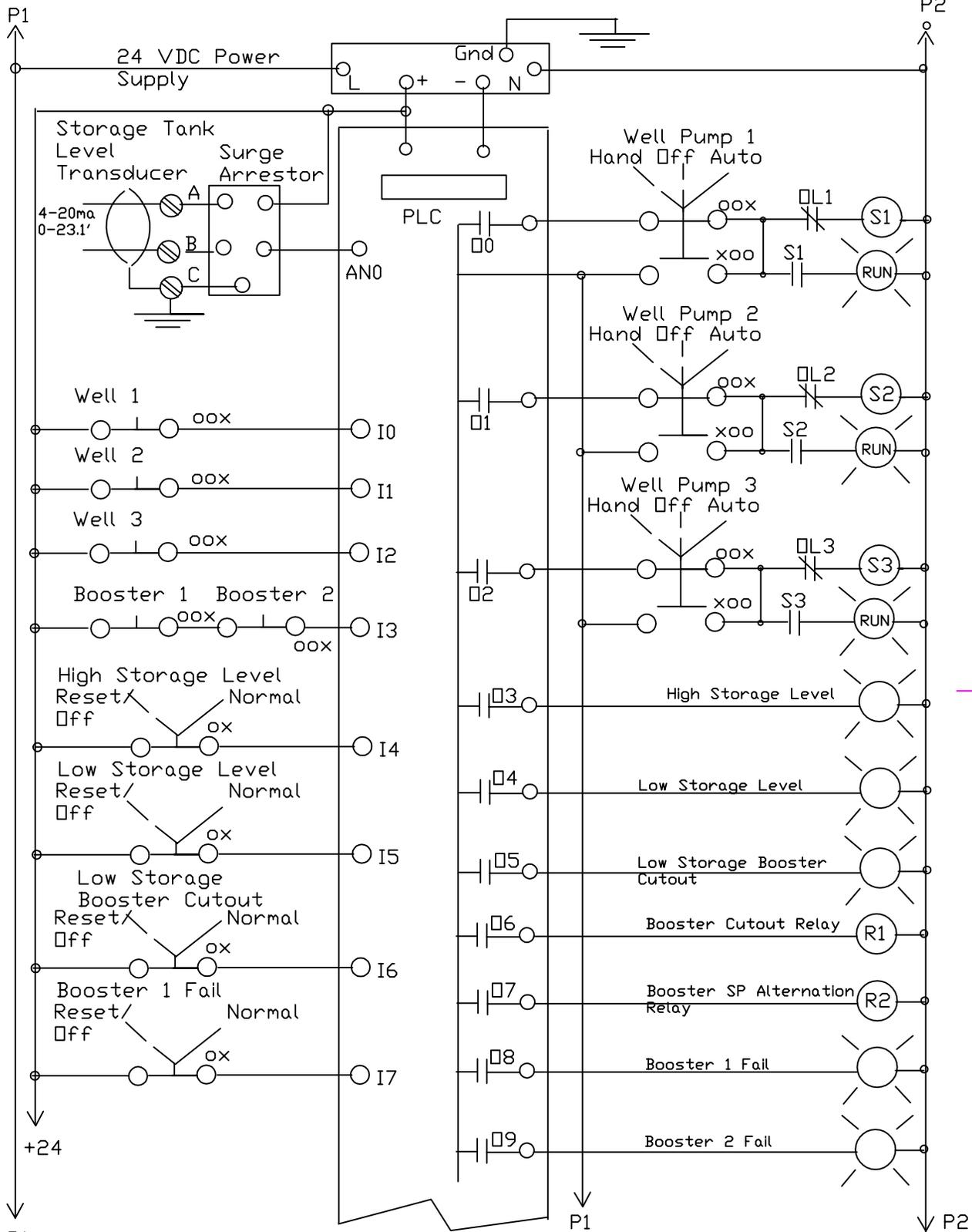


Itemref	Quantity	Title/Name, designation, material, dimension etc	Article No./Reference
Designed by pdh	Checked by pdh	Approved by - date 12/30/18	File name 175-495 pg 2
		Date 12/29/18	Scale 1:1
			Edition 0
			Sheet 2/5

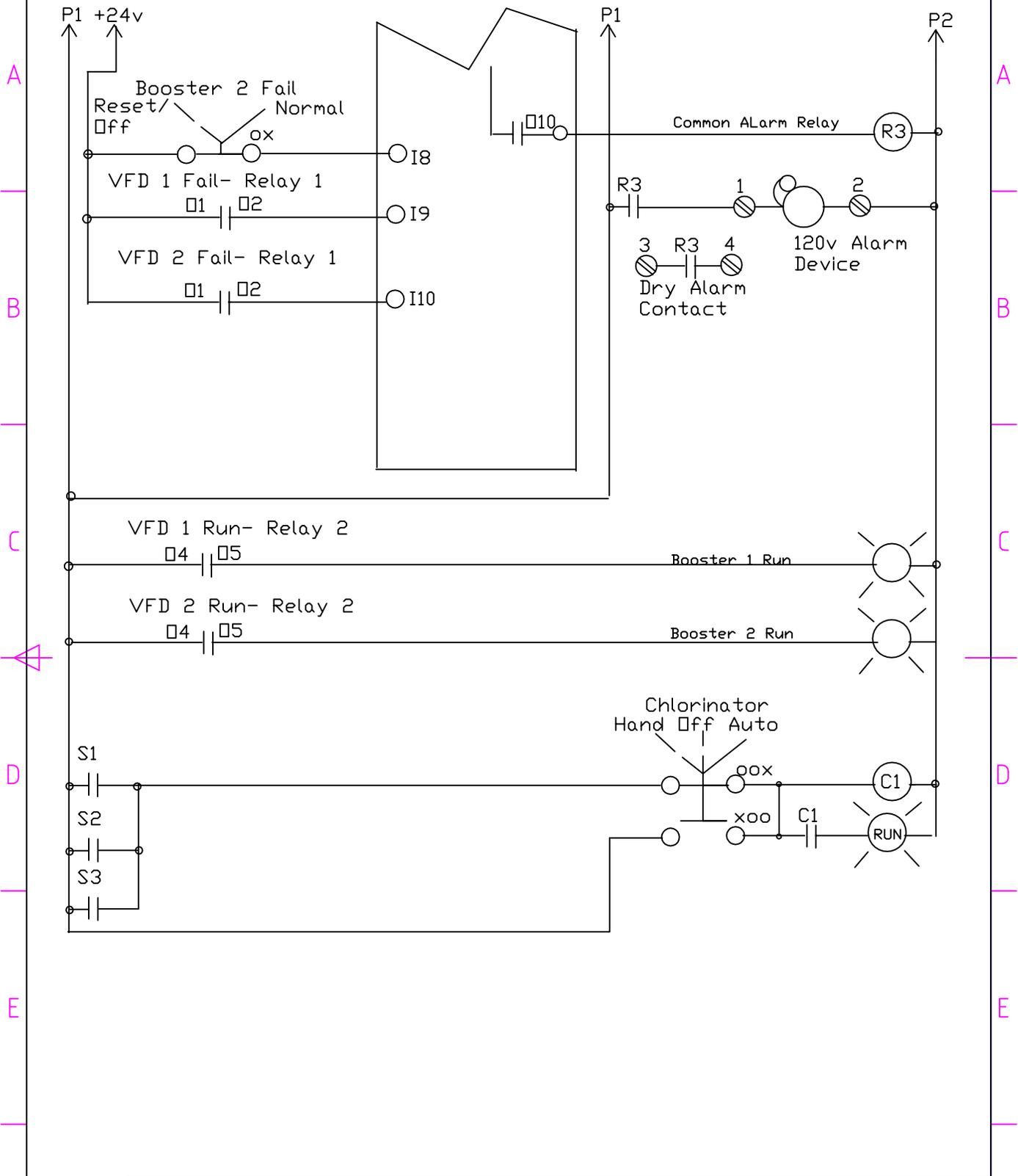
Dover Ridge Water- Beekman

175-495

Edition 0
Sheet 2/5

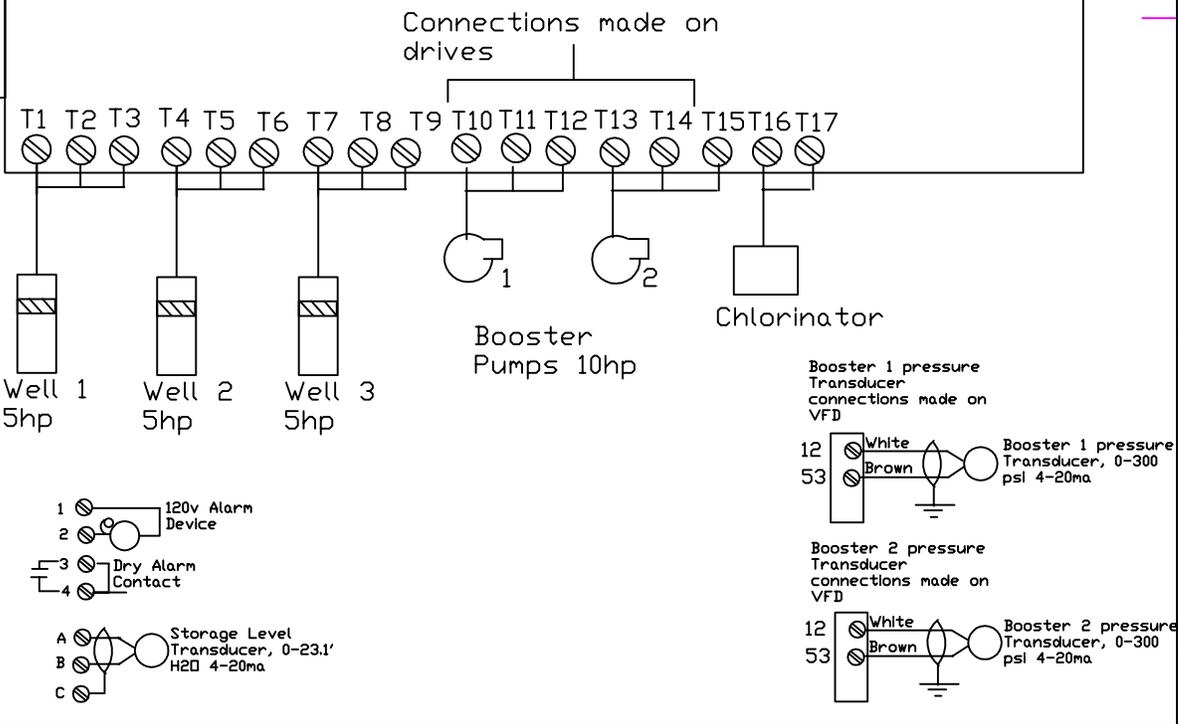
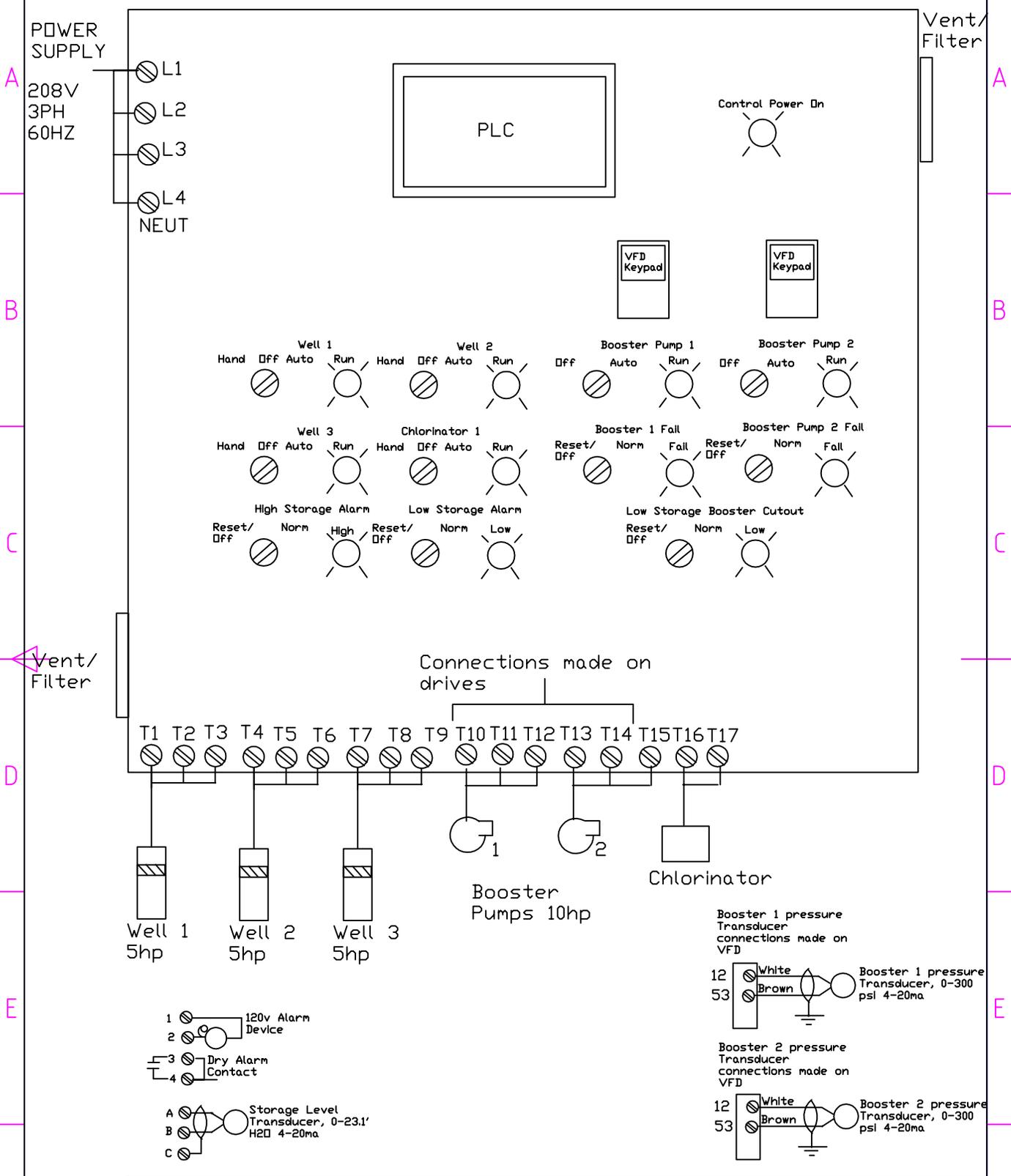


Itemref	Quantity	Title/Name, designation, material, dimension etc			Article No./Reference	
Designed by PDH	Checked by PDH	Approved by - date 12/29/18	File name 175-495 PG 3	Date 12/29/18	Scale 1:1	
				Dover Ridge Water- Beekman		
				175-474	Edition 0	Sheet 3/5



Itemref	Quantity	Title/Name, designation, material, dimension etc	Article No./Reference		
Designed by PDH	Checked by PDH	Approved by - date 12/29/18	File name 175-495 PG 4	Date 12/29/18	Scale 1:1
			Dover Ridge Water- Beekman		
			175-474	Edition 0	Sheet 4/5

1	2	3	4
RevNo	Revision note	Date	Signature
			Checked



Itemref	Quantity	Title/Name, designation, material, dimension etc			Article No./Reference	
Designed by PDH	Checked by PDH	Approved by - date 12/29/18	File name 175-495 pg 5	Date 12/29/18	Scale 1:1	
				Dover Ridge Water- Beekman		

NEMA 4-12 ENCLOSURES

5412 ES

Water, oil & dust tight enclosures

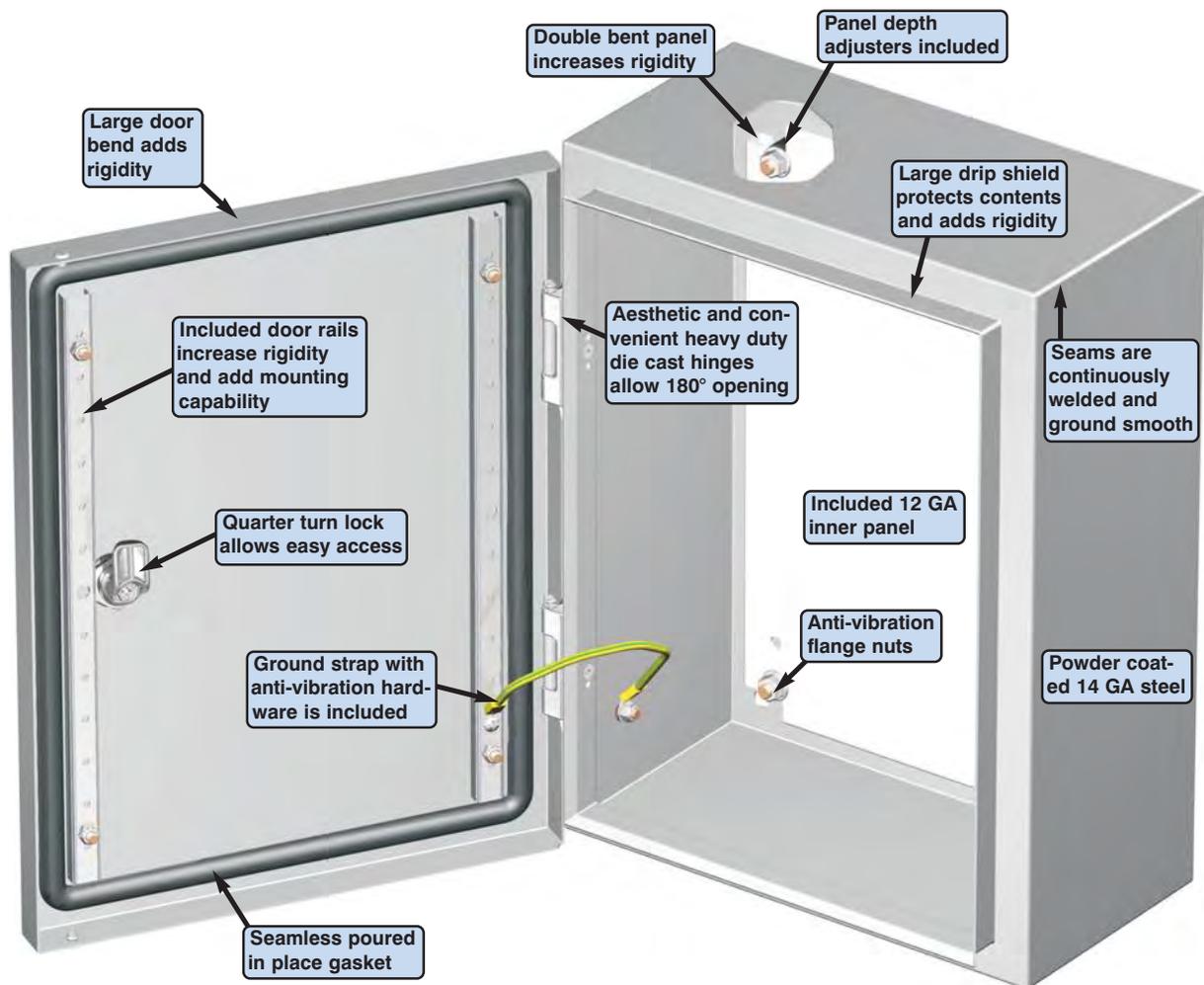
The 5412 ES water, oil & dust tight enclosures are used indoors or outdoors in areas where the enclosures may be subject to hosing or to water coming from any direction or for protection against dust, dirt or oil splashing. The 5412 ES are made from quality 14 GA or 16 GA steel, with corner seams continuously welded. The opening has a curled lip around all sides to prevent dripping water from entering the

enclosure when the door is open, it also increases rigidity. A high quality robotically poured-in-place seamless gasket ensures a complete and durable water tight seal. The pins of the concealed hinges can be pulled out to remove the door.

A ¼ turn locking mechanism (or 3 point latch system on larger enclosures) ensures positive closing. Internal mounting holes are provided. Each enclosure

comes **complete with a 12 GA inner panel** which is double bent* for maximum rigidity and which mounts on M8 welded studs. Enclosures and panels are finished with heat fused polyester powder, electrostatically applied on a pretreated base. Box is ANSI/ASA 61 gray, panel is white (other colors available).

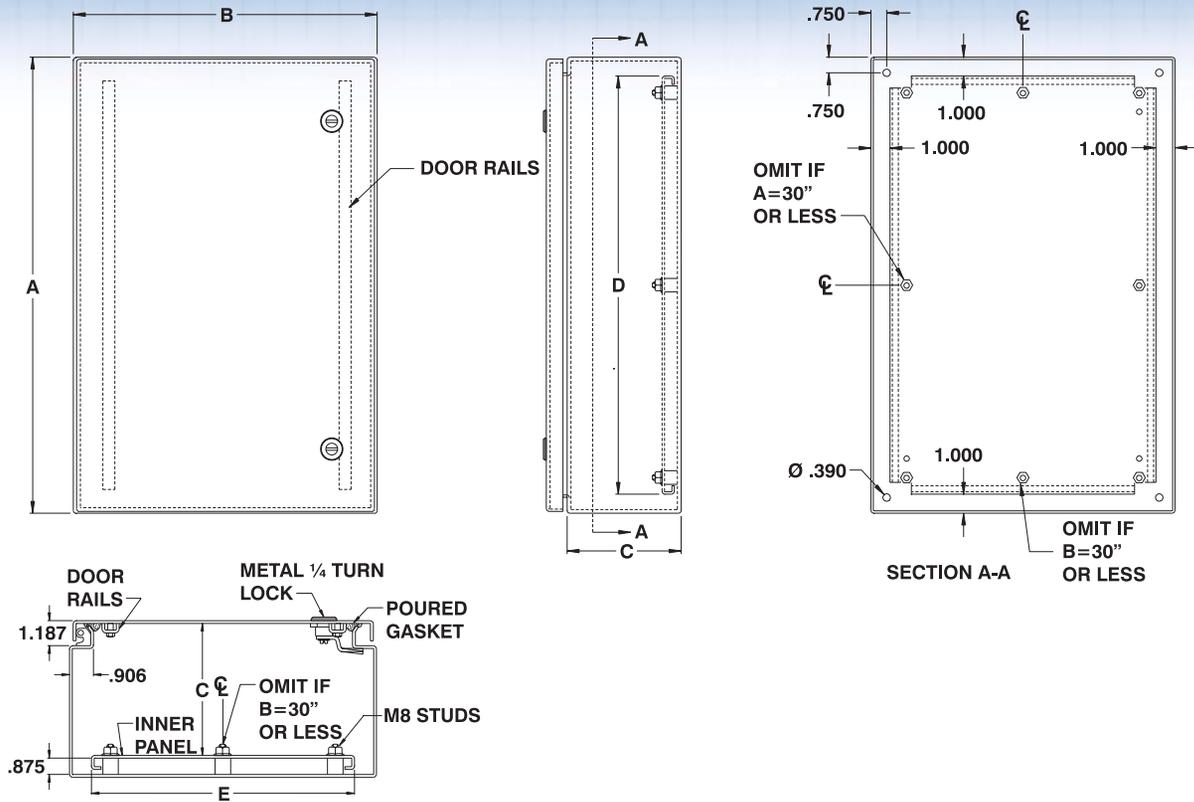
**CSA Certified / UL Listed
NEMA/EEMAC 4-12 / IP66**



The 5412 ES -
98 stock sizes available

Data subject to change without notice.





CATALOG NUMBER	DIMENSIONS					SHIP WGT LBS.	CATALOG NUMBER	DIMENSIONS					SHIP WGT LBS.
	A	B	C	D	E			A	B	C	D	E	
5412 ES201206	20	12	6	18	10	29	5412 ES363608	36	36	8	34	34	136
5412 ES201606	20	16	6	18	14	37	5412 ES201610	20	16	10	18	14	44
5412 ES202006	20	20	6	18	18	45	5412 ES202010	20	20	10	18	18	53
5412 ES202406	20	24	6	18	22	53	5412 ES241210	24	12	10	22	10	42
5412 ES241206	24	12	6	22	10	35	5412 ES242010	24	20	10	22	18	62
5412 ES241606	24	16	6	22	14	44	5412 ES242410	24	24	10	22	22	71
5412 ES242006	24	20	6	22	18	53	5412 ES302010	30	20	10	28	18	74
5412 ES242406	24	24	6	22	22	62	5412 ES302410	30	24	10	28	22	86
5412 ES301606	30	16	6	28	14	53	5412 ES303010	30	30	10	28	28	100
5412 ES302006	30	20	6	28	18	65	5412 ES362410	36	24	10	34	22	101
5412 ES302406	30	24	6	28	22	76	5412 ES363010	36	30	10	34	28	122
5412 ES362406	36	24	6	34	22	90	5412 ES201612	20	16	12	18	14	48
5412 ES363006	36	30	6	34	28	109	5412 ES202012	20	20	12	18	18	57
5412 ES201208	20	12	8	18	10	33	5412 ES202412	20	24	12	18	22	66
5412 ES201608	20	16	8	18	14	41	5412 ES242012	24	20	12	22	18	66
5412 ES202008	20	20	8	18	18	49	5412 ES242412	24	24	12	22	22	76
5412 ES202408	20	24	8	18	22	57	5412 ES302412	30	24	12	28	22	92
5412 ES241208	24	12	8	22	10	38	5412 ES303012	30	30	12	28	28	110
5412 ES241608	24	16	8	22	14	48	5412 ES362412	36	24	12	34	22	107
5412 ES242008	24	20	8	22	18	57	5412 ES363012	36	30	12	34	28	129
5412 ES242408	24	24	8	22	22	67	5412 ES363612	36	36	12	34	34	136
5412 ES243008	24	30	8	22	28	81	5412 ES242016	24	20	16	22	18	74
5412 ES301208	30	12	8	28	10	46	5412 ES242416	24	24	16	22	22	86
5412 ES301608	30	16	8	28	14	58	5412 ES302416	30	24	16	28	22	102
5412 ES302008	30	20	8	28	18	70	5412 ES362416	36	24	16	34	22	119
5412 ES302408	30	24	8	28	22	81	5412 ES363016	36	30	16	34	28	142
5412 ES303008	30	30	8	28	28	98	5412 ES302420	30	24	20	28	22	113
5412 ES303608	30	36	8	28	34	116	5412 ES363020	36	30	20	34	28	155
5412 ES362408	36	24	8	34	22	95	5412 ES302424	30	24	24	28	22	123
5412 ES363008	36	30	8	34	28	116							

Data subject to change without notice.





TECHNICAL DATA

- **0.5 Amp - 63 Amp UL**
- **Short circuit capacity (10kA) IC**
- **35mm Din Rail** mounted
- **Screw torque** to 4.5 N.m
- **Mechanical endurance** (20,000 operations)
- **Electrical endurance** (10,000 operations)
- **Current limiting design**
(Energy limit class 3)
- **Wire range** - #2 AWG or 2 x #6 AWG (max.)
#18 AWG (min.)
(35/2 x 16 mm²)max.
- **Max. AC Volts** 277/480V
- **Max. DC Volts** (1P)48 VDC
(2P)110 VDC
- **Operating temperature**
From -25°C to +50°C according to IEC 60898
- **Thermal operating limit:** (1.13-1.45 x In)
- **Shock resistance** (in x, y, z direction)
20g with shock duration of 10ms
(minimum 18 shocks)
40g with shock duration of 5ms
(minimum 18 shocks)
- **Vibration resistance** (in x, y, z direction)
3g in frequency range 10 to 55Hz
(operating time at least 30 minutes)
according to IEC 77 16.3 and DIN 40046 part 8
- **Storage temperature**
From -55°C up to +55°C
according to IEC 88 part 2-1
- **Tropicalized to +55°C / 95% RH**
(Acc. IEC60068-2 / DIN 40046)

STANDARDS / APPROVALS

- UL 1077/CSA (File# E151139)
- CE
- IEC 60898 / 60947-2
- CEBEC
- VDE
- KEMA
- BS4293
- IMQ

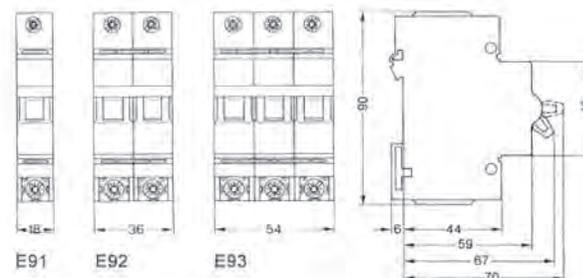
TECHNICAL PERFORMANCE

- 3 optional trip characteristics
 - B = 3-5x magnetic release
 - C = 5-10x magnetic release
 - D = 10-20x magnetic release

	Test current	Tripping time	Application
B	3 In 5 In	t ≥ 0.1s t < 0.1s	Only for resistive loads such as: - electrical heating - water heater - stoves
C	5 In 10 In	t ≥ 0.1s t < 0.1s	Usual loads such as: - lighting - socket outlets - small motors
D	10 In 20 In	t > 0.1s t < 0.1s	Control and protection of circuits having important transient inrush currents (large motors)

DIMENSIONAL DATA

Dimensions Approx. mm(inch)
E91S, E92S, E93S - 0.5A to 63A (B,C Trip)



"B" TRIP (3-5 X In)			"C" TRIP (5-10 X In)			"D" TRIP (10-20 X In)		
Amps	Part#	List	Amps	Part#	List	Amps	Part#	List
			0,5	E91SULC0,5	\$40	0,5	E91SULD0,5	\$45
			1	E91SULC01	\$40	1	E91SULD01	\$45
			2	E91SULC02	\$40	2	E91SULD02	\$45
			3	E91SULC03	\$40	3	E91SULD03	\$45
			4	E91SULC04	\$40	4	E91SULD04	\$45
5	E91SULB05	\$40	5	E91SULC05	\$40	5	E91SULD05	\$45
6	E91SULB06	\$40	6	E91SULC06	\$40	6	E91SULD06	\$45
10	E91SULB10	\$40	10	E91SULC10	\$40	10	E91SULD10	\$45
13	E91SULB13	\$40	13	E91SULC13	\$40	13	E91SULD13	\$45
15	E91SULB15	\$40	15	E91SULC15	\$40	15	E91SULD15	\$45
16	E91SULB16	\$40	16	E91SULC16	\$40	16	E91SULD16	\$45
20	E91SULB20	\$40	20	E91SULC20	\$40	20	E91SULD20	\$45
25	E91SULB25	\$42	25	E91SULC25	\$42	25	E91SULD25	\$47
30	E91SULB30	\$44	30	E91SULC30	\$44	30	E91SULD30	\$49
32	E91SULB32	\$44	32	E91SULC32	\$44	32	E91SULD32	\$49
40	E91SULB40	\$48	40	E91SULC40	\$48	40	E91SULD40	\$53
50	E91SULB50	\$52	50	E91SULC50	\$52	50	E91SULD50	\$57
60	E91SULB60	\$68	60	E91SULC60	\$68	60	E91SULD60	\$73
63	E91SULB63	\$68	63	E91SULC63	\$68	63	E91SULD63	\$73
			0,5	E92SULC0,5	\$84	0,5	E92SULD0,5	\$94
			1	E92SULC01	\$84	1	E92SULD01	\$94
			2	E92SULC02	\$84	2	E92SULD02	\$94
			3	E92SULC03	\$84	3	E92SULD03	\$94
			4	E92SULC04	\$84	4	E92SULD04	\$94
5	E92SULB05	\$84	5	E92SULC05	\$84	5	E92SULD05	\$94
6	E92SULB06	\$84	6	E92SULC06	\$84	6	E92SULD06	\$94
10	E92SULB10	\$84	10	E92SULC10	\$84	10	E92SULD10	\$94
13	E92SULB13	\$84	13	E92SULC13	\$84	13	E92SULD13	\$94
15	E92SULB15	\$84	15	E92SULC15	\$84	15	E92SULD15	\$94
16	E92SULB16	\$84	16	E92SULC16	\$84	16	E92SULD16	\$94
20	E92SULB20	\$84	20	E92SULC20	\$84	20	E92SULD20	\$94
25	E92SULB25	\$90	25	E92SULC25	\$90	25	E92SULD25	\$100
30	E92SULB30	\$94	30	E92SULC30	\$94	30	E92SULD30	\$104
32	E92SULB32	\$94	32	E92SULC32	\$94	32	E92SULD32	\$104
40	E92SULB40	\$102	40	E92SULC40	\$102	40	E92SULD40	\$112
50	E92SULB50	\$110	50	E92SULC50	\$110	50	E92SULD50	\$120
60	E92SULB60	\$124	60	E92SULC60	\$124	60	E92SULD60	\$134
63	E92SULB63	\$124	63	E92SULC63	\$124	63	E92SULD63	\$134
			0,5	E93SULC0,5	\$146	0,5	E93SULD0,5	\$161
			1	E93SULC01	\$146	1	E93SULD01	\$161
			2	E93SULC02	\$146	2	E93SULD02	\$161
			3	E93SULC03	\$146	3	E93SULD03	\$161
			4	E93SULC04	\$146	4	E93SULD04	\$161
5	E93SULB05	\$146	5	E93SULC05	\$146	5	E93SULD05	\$161
6	E93SULB06	\$146	6	E93SULC06	\$146	6	E93SULD06	\$161
10	E93SULB10	\$146	10	E93SULC10	\$146	10	E93SULD10	\$161
13	E93SULB13	\$146	13	E93SULC13	\$146	13	E93SULD13	\$161
15	E93SULB15	\$146	15	E93SULC15	\$146	15	E93SULD15	\$161
16	E93SULB16	\$146	16	E93SULC16	\$146	16	E93SULD16	\$161
20	E93SULB20	\$146	20	E93SULC20	\$146	20	E93SULD20	\$161
25	E93SULB25	\$154	25	E93SULC25	\$154	25	E93SULD25	\$169
30	E93SULB30	\$162	30	E93SULC30	\$162	30	E93SULD30	\$177
32	E93SULB32	\$162	32	E93SULC32	\$162	32	E93SULD32	\$177
40	E93SULB40	\$162	40	E93SULC40	\$162	40	E93SULD40	\$177
50	E93SULB50	\$182	50	E93SULC50	\$182	50	E93SULD50	\$197
60	E93SULB60	\$204	60	E93SULC60	\$204	60	E93SULD60	\$219
63	E93SULB63	\$204	63	E93SULC63	\$204	63	E93SULD63	\$219


1 Pole

2 Poles

3 Poles



Type ECX - Special Purpose Contactor

3 & 4 Pole Contactors



Three Pole	Part #	ECX 18- *	ECX 32- *	ECX 65- *	ECX 95- *
Three Pole	List Price	\$ 28.00	\$ 42.00	\$ 80.00	\$ 126.00
Built in Auxiliaries		1N.O.	1N.O.	1N.O + 1 N.C..	1N.O + 1 N.C..
Resistive Amps AC-1 , 660V		32A	50A	80A	110A
240 Volts Motor Full Load Amps		22A	42A	68A	80A
3 Phase Horse Power Voltage:		HP	HP	HP	HP
200V		7 1/2	10	20	30
240V		7 1/2	15	25	30
460V		10	20	40	50
600V		10	20	40	50
IEC AC-3 380V Amps		18	32	65	95
IEC AC-3 660V Amps		12	21	42	49
Single Phase UL ratings					
115V 1 Phase HP		1	3	5	7 1/2
230V 1 Phase HP		3	5	15	20
Dimensions - 3 Pole		ECX 18	ECX 32	ECX 65	ECX 95
Height	Inches	3"	3.4"	5.08"	5.08"
Width	Inches	1.85"	2.24"	3"	3.43"
Depth	Inches	3.43"	3.94"	4.6"	5"
Depth with Extra Snap On Auxiliary	Inches	4.75"	6.08"	6.08"	6.50"
AC Coil Power	3 + 4 Pole	ECX 18	ECX 32	ECX 65	ECX 95
Holding VA		8	11	20	20
Pick Up VA		70	110	200	200

Four Pole Part # ECX254N.O.-	Dimensions
List Price \$ 40.00	H = 86mm
40 Amp Resistive, : FLA28 @ 240V	W = 57mm
200V-7.5HP / 240V-10HP / 480V-15 HP	D = 97mm

Four Pole	
Part #	Part #
ECX654N.O.-	ECX954N.O.-
\$ 88.00	\$ 130.00
77 mm wide	95 mm wide

* Coil Voltage Suffix	
* Add Suffix to Part # / AC Voltage 60 Hz	
- A	120V
- C	208 / 230V
- E	480V
- F	600V
- G	24V
* Add Suffix letter to part # Part # Example : ECX 18-A = 120 VAC Coil	

- DIN Rail Mountable
- Screw mount option
- Metal Base ECX 65 & ECX 95
- 600,000 Electrical Operations Life
- 6,000,000 Mechanical operations life
- Tolerance short circuit 5KA RMS SYM., 600V Max
- ECX18 & ECX32 available with 1N.C. Add ".01" to part#
Part # Example ECX18.01-*
- Six Auxiliaries Max (4 Max ECX 18 , 32)
- -4°F + 122°F temperature
- -22 % + 10 % Coil Voltage (-22% does not apply to 208V)
- Ring terminal Capable.

Type EEC Overload Relays

- UL 508 SB Supplement : 100,000 Amps RMS SYM.Amps 480 Volts Max. When Protected by Type CC or J Fuses.
- See page 12 for trip curve chart.
- Differential single phasing protection
- UL File # E303503
- AC or DC Motors

- Ambient compensated overloads from -40°f to + 158°f Permitting no false tripping.
- Sealable setting overload with epoxy or paint for critical applications
- Nema Class 10 design for "T" frame motors Both N.O. (Alarm) and N.C. (trip) Contacts
- Plug on / bolt on to contactor design (Up to 93 Amps)

Part#	List Price	Plugs into Contactors	
EEC 0.1 - 0.16A	\$ 36.00	EEC 12 EEC 18 EEC 25 EEC 32	
EEC 0.16 - 0.25A	\$ 36.00		
EEC 0.25 - 0.4A	\$ 36.00		
EEC 0.4 - 0.63	\$ 36.00		
EEC 0.63 - 1A	\$ 36.00		
EEC 1 - 1.6A	\$ 36.00		
EEC 1.6 - 2.5A	\$ 36.00		
EEC 2.5 - 4A	\$ 36.00		
EEC 4 - 6A	\$ 36.00		
EEC 5.5 - 8A	\$ 36.00		
EEC 7 - 10A	\$ 36.00		
EEC 9 - 13A	\$ 38.00		
EEC 12 - 18A	\$ 38.00		
EEC 17 - 25A	\$ 48.00	EEC 25 EEC 32	
EEC 23 - 32A	\$ 48.00		
EEC 28 - 36A	\$ 55.00		
EEC 30 - 40A	\$ 55.00		EEC 40 EEC 50 EEC 65 EEC 80 EEC 95
EEC 37 - 50A	\$ 60.00		
EEC 48 - 65A	\$ 80.00		
EEC 55 - 70A	\$ 80.00		
EEC 63 - 80A	\$ 102.00		
EEC 80 - 93A	\$ 102.00		
Below overloads Mount independent of Contactor (use wire to connect).			
EEC 65 - 105A	\$ 125.00	Or Optional Buss Bar Connections Below.	
EEC 80 - 125A	\$ 140.00		
EEC 100 - 160A	\$ 240.00		
EEC 125 - 200A	\$ 250.00		
EEC 160 - 250A	\$ 260.00		
EEC 250 - 400A	\$ 390.00		
EEC 315 - 500A	\$ 460.00		
EEC 400 - 630A	\$ 580.00		
EEC 500 - 800A	\$ 640.00		

Overload Aux. Contacts

- Min. 5mA, 24V AC/DC
- Max 600VAC, 440VDC
- 5 Amp Thermal

Ring Terminal capable up to 40 Amps.



EEC 23-32A

For separate mounting (independent overload without contactor) up to 36 Amps , add "S" to part # Up to 36 Amps add \$10.00 Price Example: \$ 55.00+\$10.00 = 65.00 EEC 28-36 AS

Separate Mount Accessories		
Part #	For Overload Range	List Price
EEC - AD 25A	0.1 Amp to EEC 17 -25 A	\$ 10.00
EEC - AD 36A	EEC 23 - 32A + EEC 28 -36 A	\$ 10.00
EEC - AD 65A	EEC 30 - 40A + EEC 37 -50 A EEC 48 - 65A	\$ 10.00

- Overload Relay Features:**
- 1) Trip indicator window (turns yellow when tripped)
 - 2) Stop button opens N.C. contacts 95/96
 - 3) Depressing the test button causes the yellow indicator to appear ,and changes the contacts to their opposite state (N.O. closed + N.C. opens). The reset button then changes them back.
 - 4) Reset button resets a tripped overload.

Contactors to Overload Bus Bar Connection Kits For Overloads sizes EEC105A to EEC 200A	Part # (Includes 3 busbars)	For Contactors	List Price	Part # For Overload sizes EEC 250A to 400A	For Contactors	List Price
	EEC115-BBK1	EEC115	\$36.00	EEC185-BBK2	EEC185	\$60.00
	EEC150-BBK1	EEC150	\$40.00	EEC225-BBK2	EEC225	\$72.00
	EEC185-BBK1	EEC185	\$44.00	EEC265-BBK2	EEC265	\$88.00
	EEC225-BBK1	EEC225	\$44.00	EEC330-BBK2	EEC330	\$88.00
	EEC265-BBK1	EEC265	\$64.00	EEC400-BBK2	EEC400	\$88.00
	EEC330-BBK1	EEC330	\$64.00			
EEC400-BBK1	EEC400	\$64.00				



CONTROL CIRCUIT TRANSFORMERS

Micron Transformers

Micron Transformers

Built and designed to address today's highest reliability and performance demands. Micron's Industrial Control Circuit Transformers meet and exceed all NEMA, ANSI, UL and CSA standards. Powerful electronics built with heavy duty construction assure reliable operation of electromagnetic devices with trouble free performance. We carry the most versatile design transformers from Micron Transformers in stock. The part numbers below are designed as a triple tap in 208V/230V/460V and a 120V/24V secondary tap.

All part numbers below include a primary and secondary fuse holder as standard. Fuses may also be ordered as a separate item below.

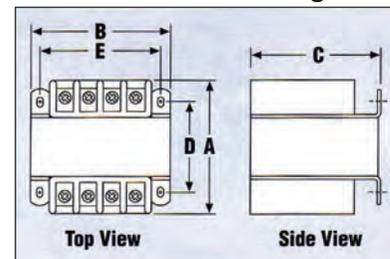
Standards and Approvals



IEC



Dimension Dialog



C dimensions include primary fuse block mounted on top

Control Transformers ▲



50/60HZ

Primary Volts	Secondary Volts	Continuous VA	Catalog Part number	List Price	Contactors to use with	A* height	B* width	C* depth
208V, 230V, 460V	115V 24V	50VA	B050MBT713RK	\$48	LS07,4,7,17,27,37 LS05,4K,7K,11K,18K	3.25" (83mm)	3." (76mm)	3.93" (100mm)
208V, 230V, 460V	115V 24V	100VA	B100MBT713RK	\$64	LS47,57,77,87,107 LS22K,30K,37K,45K, LS55K	3.62" (92mm)	3.75" (95mm)	4.55" (76mm)
208V, 230V, 460V	115V 24V	150VA	B150MBT713RK	\$76	LS177, LS75K LS90K(3P)	4.37" (111mm)	3.75" (95mm)	4.55" (76mm)
208V, 230V, 460V	115V 24V	200VA	B200MBT713RK	\$96	LS247 LS110K, 132K, 160K	4.5" (114mm)	4.5" (114mm)	5.18" (132mm)
208V, 230V, 460V	115V 24V	250VA	B250MBT713RK	\$106	LS220K, 280K, 375K	5.25" (133mm)	4.5" (133mm)	5.18" (133mm)
208V, 230V, 460V	115V 24V	300VA	B300MBT713RK	\$116	LS450K	5.12" (130mm)	5.25" (133mm)	6.12" (155mm)
208V, 230V, 460V	115V 24V	350VA	B350MBT713RK	\$132		5.37" (137mm)	5.25" (133mm)	6.12" (155mm)

Fuses for above transformers

▲ other type transformers are available (contact factory).

Primary Fuses are "Rejection Feature Type" and require a *Rejection Feature Fuse*. This fuse type is identified with R designation (example: ATQR- 1/2). Fuse supplier is Ferraz Shawmut (fuses shown are time delay).

Primary	Fuse Part Numbers		
Amps	PIN	List Each	
1/2 Amp	ATQR - 1/2A	\$10	
1 Amp	ATQR - 1A	\$10	
1.5 Amp	ATQR - 1.5A	\$10	
2 Amp	ATQR - 2A	\$10	

Secondary	Fuse Part Numbers		
Amps	PIN	List Each	
1/2 Amp	ATQ - 1/2A	\$10	
1 Amp	ATQ - 1A	\$10	
1.5 Amp	ATQ - 1.5A	\$10	
2 Amp	ATQ - 2A	\$10	

*All dimensions are approximate.



Edco EMC-240B

120/240 VAC Low Exposure AC Panel Protection

The Edco EMC-240B surge suppressor is designed to protect AC distribution panel circuits or 120V power supplies feeding sensitive electronic equipment. Electrically, the unit incorporates MOV and thermal fusing technology. The Edco EMC 240B is designed to be installed in parallel on standard single phase 120VAC (L,N,G) circuits.

Features

- Fast response time
- 40,000 Amps per phase capacity
- Failsafe and fused
- Operational status indicators
- UL 1449 Third Edition, Type 2 listed
- 5 year warranty

General Technical Specifications

Operating Voltage	120/240 VAC	Operating Frequency	47-63 Hz	Operating Temperature	-40°C to +85°C
VPR	L-N:600V, L-L:1,200V	EMI Attenuation (100 kHz to 100 MHz)	> 40 dB	Dimensions (Inches)	4.6H x 2.2W x 2.8L
Fault Current Rating	42 kAIC	SPD Technology	Metal Oxide Varistors (MOVs)	Weight	13.5 oz
UL Location	Type 2	Modes of Protection	Line-to-Line, Line-to-Neutral	Certifications	ANSI/UL 1449 Third Edition Type 2, CUL
I-Nominal (kA)	3kA	Status Indication	Power On & MOVs functional		
Operating Current	NA, Parallel	Connection Type	Wire Leads		
Total Peak Surge Current	80 kA (8 x 20 μs)				



Edco™ FAS-120AC

120 VAC Medium Exposure AC Panel Protection

The Edco FAS-120AC surge suppressor is designed to protect AC panel circuits or 120V power supplies feeding sensitive electronic equipment.

Electrically the unit incorporates MOV and thermal fusing technology. This device is designed to be installed in parallel on standard single phase 120VAC (L,N,G) circuits.

Installation can be close-nipple up to a distribution panel/circuit or hardwired in parallel up to power supply input terminal screws. Be sure to dress leads as short as possible.

Features

- LED indicator
- Fast response time
- Thermal fuse
- L-G, L-N, & N-G protection
- Compact size
- Liquid tight conduit fitting
- 5 year warranty

General Technical Specifications

Operating Voltage	120 VAC	EMI Attenuation (100 kHz to 100 MHz)	> 25 dB	Dimensions (Inches)	2.5H x 1.5W x 3.0L
VPR	L-N:700V, L-G:700V, N-G:700V	SPD Technology	Metal Oxide Varistors (MOVs)	Weight	4.2 oz
UL Location	Type 2	Modes of Protection	Line-to-Neutral, Line-to-Ground, Neutral-to-Ground	Certifications	ANSI/UL 1449 Third Edition
I-Nominal	3 kA	Status Indication	Power On & MOV Functional		
Operating Current	NA, Parallel	Connection Type	Wire Leads		
Total Peak Surge Current	15.5 kA (8 x 20 μs)	Operating Temperature	-40°C to +85°C		

Single Phase Power Supply Type GSA-SWD



Compact Size
UL Listed

Standard Sizes: 24 Volt DC Output
 1.25 Amp
 2.5 Amp
 5 Amp
 10 Amp
 20 Amp

Normal Input Voltages:
100 / 240VAC

Output Voltages:
24V DC -5% + 15% Adjustable

Three Phase Power Supply Type GSA-TOP



Compact Size
Conform to CE
EN 55011 c1. B (EN 61000-3-2 on request)
Standard Sizes: 24Volt DC Output

10 Amp
 20 Amp
 30 Amp
 40 Amp
 50 Amp

Normal Input Voltage:
360 Volt thru 500 Volt

Output Voltages:
24V DC ± 10% Adjustable

Designed for Parallel Connection
Negative Connection can be grounded

Other Power Supplies Available AC to DC



Type TLM
1Ø 230V, 460V



Type TRC
3Ø 400V



Type TRTL
3Ø 400V



Type TLT
3Ø 380/400/415



Type LCC
24VAC



Type LCF
1Ø 24VAC



Type LCL
1Ø 400/230/115



Type SW
AC or DC
Input



Type SWL
1Ø 115/230/400

SERIES GSA POWER SUPPLIES

DESCRIPTION - DETAS POWER SUPPLIES

Type GSA Power Supplies are components used to convert incoming voltage AC power to 24 volt DC output, either single phase or 3 phase regulated depending on the unit selected. The 24 volt DC standard size outputs are available 2.5 Amp to 120 Amp.

Other DC output voltages down to 5 VDC are also available.

Single Phase GSA Type SWLC

Seven different styles are packaged for space saving, easy mounting, and fast wiring. DIN RAIL mount power supplies have wide input voltage range of 100 thru 240Volt AC, (50/60Hz) with optional outputs of 5Volt DC to 24Volt DC. Output power range from 36 watts to 150 watts.

Three Phase GSA Type TOP

GSA Type TOP are available in 5 sizes, 400 thru 500Volt 50/60Hz. Output is 24Volt DC, adjustable +10%. Output current range options from 10Amp to 50Amp.

Other Power Supply Designs

Optional Series GSA Power Supplies are available with 5 Volt DC thru 24Volt DC outputs thru 120Amp.

INTERNATIONAL DIRECTIVES CE

Two European Directives are relevant to the manufacturer of power supplies: The low voltage Directive n.73/23/EEC and the EMC Directive 89/336/EEC. Both Directives must be applied in conjunction with the amending Directive 93/68/EEC for CE marking. These Directives are now in force and all the related products placed in the European union must carry the CE marking.

TWO CATEGORIES OF POWER SUPPLIES:

COMPONENT POWER SUPPLIES

Component Power Supplies for OEM are designed and produced to be "professionally installed" into a final product. "Professionally installed" means that the installer is technically competent and able to satisfy the requirements of the Directive applicable to the final product. The Component Power Supplies are intended to be incorporated in electrical panel equipment, as they are not complete in themselves.

As components they cannot fully comply with the requirements of all applicable Directives. This is dependent on the Professional Installer.

STAND ALONE POWER SUPPLIES

Stand Alone Power Supplies are intended for free standing operation in industries, laboratories, workshops and other areas.

As such these power supplies are field installed by the final user and his contactor.

Typical examples include bench units, free standing and wall mounted types.

LOW VOLTAGE DIRECTIVE 73/23/EEC

This Directive applies to almost all electrical and electronic equipment, designed to operate in the voltage range 50-1000VAC or 75-1500VDC. There are some exceptions such as elevators, equipment used in explosive atmospheres, and equipment used on ships, aircraft and railways.

According to the Directive the equipment must be "safe" and manufactured in accordance with the Principle Elements of the Safety Objective.

Stand Alone Power Supplies and Component Power Supplies shall be CE marked under the Low Voltage directive. Furthermore, a confirming Declaration of Conformity must be kept in a technical file for ten years following the manufacture of the last unit.

EXAMPLES of Harmonized Safety Generic Standards for the Power Supplies include:

-EN 60950 (UL1950)

(Information Technology, Business and Communication Equipment)

-EN 60204

(Safety of Machinery - Electrical Equipment of Machines)

Other more recent standards include:

-IEC 61508 (UL508) Functional safety: safety related systems

-IEC 61000-1-2 Ed. 1.0 Methodology for the achievement of functional safety of electrical and electronic equipment. (Revision to EN-61000)

CE, EU-EUROPEAN REQUIREMENT FOR POWER SUPPLIES

EN-61000-3-1 (IEC 1000-3-1)

An EMC Electric Noise Specification Restriction. Effective in 2001.

EN-61000-3-2

An important CE requirement: A Power Factor Correction Specification Requires PF correction to 99%.

SERIES GSA SWD POWER SUPPLY

(Single Phase)

24 VOLT DC OUTPUT

DIN RAIL MOUNT

1.25 Amp to 20 Amp

COMPACT SIZE

30 Watt to 480 Watt

REGULATED OUTPUT



FEATURES

Single phase input
Wide Input Range 100-240 VAC



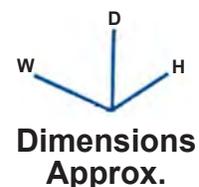
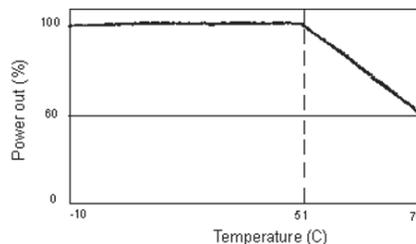
SPECIFICATIONS

Input Voltage	100 - 240 VAC
Frequency	47 - 63 Hz
Output voltage	Select: 24 VDC
Output voltage adj.	-5 +15%
Temperature rating	-10°C + 50°C
Approvals	01, 02 - UL1950, UL508 Listed, Class 2 05, 10, 20 - UL508 Listed
Protection	Internal Fuse T2A / 250VAC
Connection	01, 02 Quick Connect Terminals 05, 10, 20 Screw Clamp Terminal

Selection	GSA SWD 01			GSA SWD 02			GSA SWD 05			GSA SWD 10			GSA SWD 20		
Catalog Number	D 0023 01			D 0023 02			D 0023 05			D 0023 10			D 0023 20		
List Each	\$65			\$70			\$110			\$150			\$305		
Output Voltage	<u>24VDC</u>			<u>24VDC</u>			<u>24VDC</u>			<u>24VDC</u>			<u>24VDC</u>		
Output Current	1.25A			2.5A			5A			10A			20A		
Noise in mV	50			50			50			100			100		
Dimensions approx. mm Inch	H	W	D	H	W	D	H	W	D	H	W	D	H	W	D
	90 (3.5")	40 (1.6")	115 (4.5")	90 (3.5")	40 (1.6")	115 (4.5")	125 (4.9")	63 (2.5")	126 (5.0")	125 (4.9")	83 (3.3")	126 (5.0")	125 (4.9")	175 (6.9")	116 (4.6")



**Din
Rail Mount**





Edco™ DRS (DC) Series

DIN Rail Protection

The Edco™ DRS (DC) Series is a DIN rail mountable, single-pair surge suppression module implementing three-stage hybrid technology. This module addresses over-voltage transients with gas tubes and silicon avalanche components. In addition, sneak currents are mitigated with resettable fuses (PTCs). The PTCs increase resistance several orders of magnitude when over-currents exceed safe levels. A normal state resumes when over-currents are removed. The ability to self-restore in this manner significantly increases suppressor performance and survivability.

The Edco™ DRS (DC) Series mounts onto a standard 35 mm industrial DIN rail. There are three “Field Side” and three “Electronics Side” screw terminals. One is reserved for a shield. Three electrically tied ground terminals are provided for grounding the Edco™ DRS Series unit to Building-Approved Ground. Shield is isolated from ground. For a 2-terminal version without a shield, order the Edco™ DRS-XXX-2.

Features

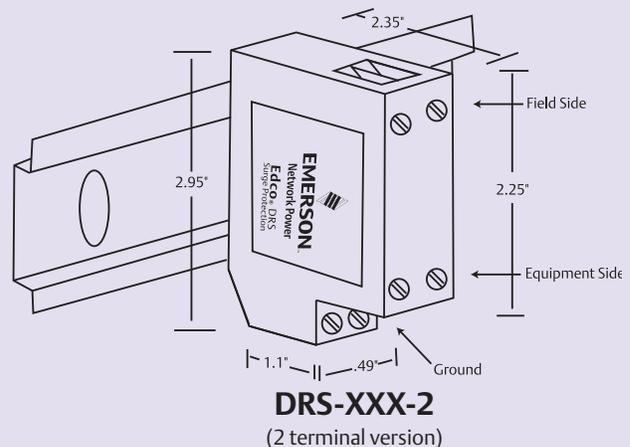
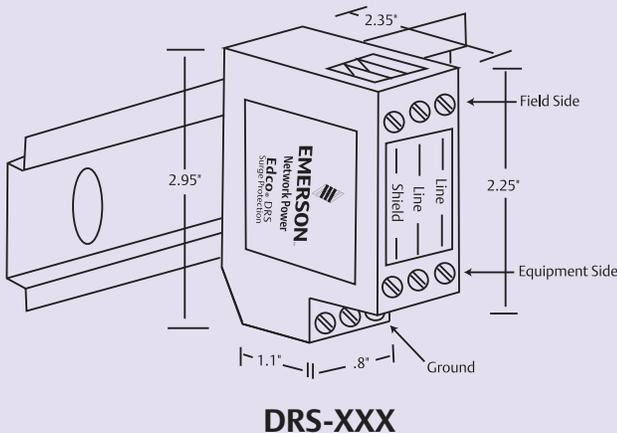
- Low-voltage data surge protection
- Three-stage hybrid protection
- Sneak/fault current protection with resettable fuses – PTCs
- Low profile packaging
- UL 497B listed
- Easy installation
- Fits standard 35 mm DIN rail
- Fast response time < 1 nanosecond
- 5 year warranty

General Technical Specifications

Part Number	Maximum Peak Signal Voltage	Nominal Breakdown Voltage	Surge 1p 10 x 1000 μ s Current	Peak Current 8 x 20 μ s Waveform	Typ Cap (pf)	Maximum Continuous Current (ma)	Nominal Series Resistance
DRS-036	30	36	>100	10 kA	1500	150	5 Ohms
**DRS-130	170	200	>10	8 kA	1500	5000	None

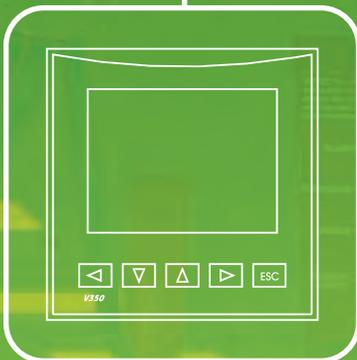
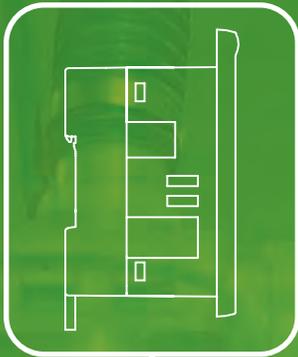
****Warning!!** DRS-130RMS is for Discrete Signal Use Only. Do not use DRS-130RMS on 120 VAC Power Lines. This unit is a non-hybrid, MOV design, rated above 5 A operational current and can withstand greater than eight occurrences of a 10 kA 8 x 20 μ s waveform, and greater than 1000 occurrences of a 200 A 10 x 1000 μ s waveform.

Dimensional Diagrams



Color Me Beautiful

VISION350™: POWER PLC, COLOR TOUCHSCREEN & ONBOARD I/Os



PLC FEATURES

- Logic memory: 1MB
- Scan time: 15µsec per 1K of typical application
- Up to 38 onboard I/Os; expandable up to 166
- I/O options: digital, analog, temperature & weight
- Recipe programming and datalogging
- Auto-tune PID: up to 24 independent loops

HMI FEATURES

- 3.5" Color Touchscreen, QVGA
- 256 colors, TFT LCD display
- 1024 displays, 250 images per application
- Application memory: Images- 3MB; Fonts- 512K
- 5 programmable, user-labeled keys

COMMUNICATION OPTIONS*

- Ethernet via TCP/IP
- MODBUS, CANopen, & UniCAN
- GSM/SMS/GPRS
- Free Remote Access utilities
- Adaptable to most TCP/IP/serial protocols

* 1 built-in RS232/RS485 port. Other communication ports are available by separate order.

THE PERFECT FIT

VISION350™ IS AVAILABLE IN 6 MODELS, TO SUIT ANY APPLICATION

	V350-35-R2	V350-35-R34	V350-35-RA22	V350-35-T2	V350-35-T38	V350-35-TA24
	10 Digital Inputs 2 Analog/Digital Inputs 6 Relay Outputs	20 Digital Inputs 2 Analog/Digital Inputs 12 Relay Outputs	8 Digital Inputs 2 Analog/Digital Inputs 2 TC/PT/Digital Inputs ¹ 8 Relay Outputs 2 Analog Outputs	10 Digital Inputs 2 Analog/Digital Inputs 12 Transistor Outputs	20 Digital Inputs 2 Analog/Digital Inputs 16 Transistor Outputs	8 Digital Inputs 2 Analog/Digital Inputs 2 TC/PT/Digital Inputs ¹ 10 Transistor Outputs 2 Analog Outputs
I/O						
Digital Inputs ¹ (maximum)	12 pnp/npn (source/sink) 24VDC	22 pnp/npn (source/sink) 24VDC	12 pnp/npn (source/sink) 24VDC	12 pnp/npn (source/sink) 24VDC	22 pnp/npn (source/sink) 24VDC	12 pnp/npn (source/sink) 24VDC
High-speed Counters/Shaft-Encoder/Frequency Measurer ²	Three, 10 kHz 32 bit resolution	Three, 10 kHz 32 bit resolution	One, 10 kHz 32 bit resolution	Three, 10 kHz 32 bit resolution	Two, 10 kHz 32 bit resolution	One, 10 kHz 32 bit resolution
Analog Inputs ¹	Two 10 bit inputs: 0-10V, 0-20mA, 4-20mA	Two 10 bit inputs: 0-10V, 0-20mA, 4-20mA	Two 14 bit inputs: 0-10V, 0-20mA, 4-20mA and	Two 10 bit inputs: 0-10V, 0-20mA, 4-20mA	Two 10 bit inputs: 0-10V, 0-20mA, 4-20mA	Two 14 bit inputs: 0-10V, 0-20mA, 4-20mA and
Temperature Measurement ¹	None	None	2 PT100 or Thermocouple inputs	None	None	2 PT100 or Thermocouple inputs
Digital Outputs	6 relay outputs	12 relay outputs	8 relay outputs	12 pnp (source)	16 pnp (source)	10 pnp (source)
High-speed Outputs/PWM ²	None	None	None	Seven, 2 kHz	Seven, 2 kHz	Five, 2 kHz
Analog Outputs	None	None	Two 12 bit outputs: 0-10V, 4-20mA	None	None	Two 12 bit outputs: 0-10V, 4-20mA
I/O Expansion	Up to 128 I/Os may be added via I/O expansion port (number of I/Os may vary according to expansion module)					
Operator Panel						
Display	320x240 pixels (QVGA), 3.5" active area, Graphic TFT LCD					
Touchscreen	Resistive, analog					
Colors	256					
HMI Displays	1024 displays, 250 images per application					
Keyboard	5 programmable keys. Labeling options - function keys, arrows or customized					
Program						
Application Memory	Application Logic: 1MB • Images: 3MB • Fonts: 512K					
Scan Time	15µsec per 1K of typical application					
Operand Capacity	8192 coils, 4096 registers, 512 long integers (32 bit), 256 double words (32 bit unsigned), 64 floats, 384 timers (32 bit), 32 counters Additional non-retainable operands: 1024 X-bits, 512 X-integers, 255 X-long integers, 64 X-double words					
Data Tables	120K dynamic data (recipe parameters, datalogs, etc), 192K fixed data (read-only data, ingredient names, etc)					
Enhanced Programming Features	Trends: graph any value • Alarms: built-in screens • String Library: Instantly switch HMI language					
Communication						
RS232/RS485	1 built-in RS232/RS485 port (selectable)					
Optional port ³	Ethernet (V100-17-ET2)	or	RS232/RS485 (V100-17-RS4)	or	RS232/RS485 (isolated) (V100-17-RS4X)	
CANbus port ³ (optional)	1 isolated port (V100-17-CAN). Supports CANopen, UniCAN and CAN Layer 2					
MODBUS	Supports MODBUS protocol, Master/Slave					
GPRS	Programming, data acquisition and SMS, via wireless data transmission					
GSM	SMS messages to/from any quantity of phone numbers					
General						
PID	Up to 24 independent PID loops, including internal auto-tune, ramp-soak programmer and bumpless transfer					
Power supply	24VDC					
Battery back-up	7 years typical at 25°C					
Dimensions	External: 109.1 x 114 x 68 mm (4.29" x 4.49" x 2.67") ; Cut-out: 92 x 92 mm (3.622" x 3.622")					
Environment	IP65/NEMA4X (for panel, when mounted)					

¹ Certain inputs can function as either digital, analog, thermocouple or PT100 (model-dependent). Using those inputs, regardless of the combination among analog, thermocouple and PT100, will reduce the amount of free digital inputs.

² Certain inputs can function as high-speed counters, shaft-encoder inputs, frequency measurers or normal digital inputs. In some of the models certain outputs can function as high-speed/PWM outputs or normal digital outputs.

³ Available by separate order.

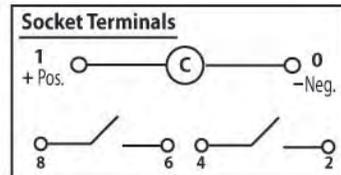
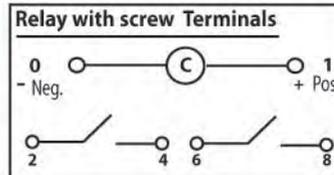
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 <p>25Amp, 277V</p>		 <p>"ON" Light</p> <p>Red - AC Green - DC</p>									
<p>Plug in Relay Item # 76F-T-2A-* List Price \$12.00 *Add coil voltage</p>	<p>Socket Item # 76F--06 List Price \$ 5.00</p>	<p>Screw Terminal Relay Item # 76F-BLD-2A-* List Price \$17.00</p>	<p>Coil Suffix</p> <table border="1"> <tr><td>-G</td><td>24VAC</td></tr> <tr><td>-N</td><td>24VDC</td></tr> <tr><td>-A</td><td>120VAC</td></tr> <tr><td>-C</td><td>240VAC</td></tr> </table>	-G	24VAC	-N	24VDC	-A	120VAC	-C	240VAC
-G	24VAC										
-N	24VDC										
-A	120VAC										
-C	240VAC										

Socket & Relay DIN mount and bolt mount.

Electrical Ratings, 2Pole, N.O.	
25Amp. AC -1 Resistive Current 277 VAC, 25 Amp	Operating Coil Power Consumption Hold In : 2.5VA (AC) 1.9VA (DC)
1.5 HP 120VAC 3.0 HP 240VAC AC-15 Motor Load	Life cycle operations 100,000 Electrical 5,000,000 Mechanical (Above at) 1,800 ops.per hour elect. 18,000 ops. per hour Mech.
Contacts Ag Alloy	-13°F, +133°F Ambient Temp

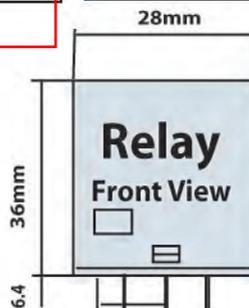
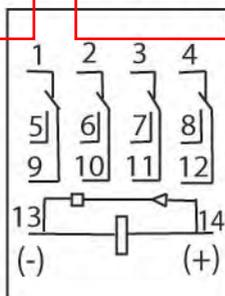
Dimensions : mm/inches			Relay Version
H	W	D	
50/2"	49/2"	54/2.15"	Screw Terminal
60/2.4"	53/2"	60/2.4"	Relay + Socket



4 Pole Double Throw 10Amp	
	
<p>Plug in Relay Item # JQX-13-KE-4CL* List Price \$8.00 * Add coil voltage</p>	<p>Socket Item #SKF-14E List Price \$4.50</p>

Electrical Ratings	
10Amp. AC -1 Resistive Current 250 VAC, 10 Amp	Operating Coil Power Consumption Hold In : 1.2VA (AC) 0.9VA (DC)
1/3 HP 120VAC 1/6 HP 240VAC AC-15 Motor Load	Life cycle operations: 1,00,000 Electrical 10,000,000 Mechanical (Above at) 1,800 ops.per hour elect. 18,000 ops. per hour Mech.
Contacts Ag Alloy	-25°F, +158°F Ambient Temp

**4 - FORM "C"
Contacts
(4 - Pole-
Double
Throw)**



Socket mm dimensions		
H	W	D
67	30	30

SERIES B22

GENERAL: Miniature - 7/8" Mounting

The new Series Heavy Duty Oil-Tight Control Units are a most complete series of buttons and lights, designed to save panel space in A.C. or D.C. control circuit applications.

Control units are available assembled or in individual units for customer assembly.

ELECTRICAL RATINGS International Standards:

	600 Volt AC	10 AMP	A600
	300 Volt DC		Q300
Other Codes: CSA, CEI, IEC, VDE, BSI,			

HEAVY DUTY OIL TIGHT

- Type 12/13
- Type 4 Hose Test / WaterTight (IP66)
- Type 4x

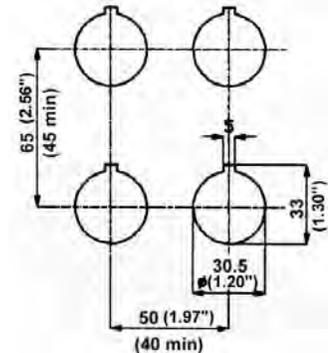
OPERATIONAL TEMPERATURE RANGE:

-25 degrees centigrade to +70 degrees centigrade

ELECTRICAL RATINGS:

One Million Operating life (Double Contact Fidelity)	<ul style="list-style-type: none"> ▲ Parallel Movable Controls ▲ Wiping Action ▲ Suitable for electronic dry circuit 12V, 5 mA
--	---

SERIES B30 FULL SIZE 30mm



"ALL ROUND" (22mm) Satin Chrome & (22mm) Polyamide operators can be ordered as a "FULL SIZE B30" Operator simply by putting the prefix: **B30** - to the part number.

To order adaptors separate, see page 178.
BCR-AX- (Round Polyamide) (\$8.00 List)
BCR-AM- (Round Satin Chrome) (\$14.00 List)

CONTACT BLOCKS

Self Cleaning With Wipe Action	Catalog Number
1 NO	SES 10
1 NC	SES 01
1 NO + NC	SEU 11
2 NO	SEU 20
2 NC	SEU 02

**NC CONTACTS
ARE POSITIVE
OPENING**



PUSHBUTTONS 10 POLES MAX All Contact Blocks are interchangeable.

ELECTRICAL CHARACTERISTICS - CONTACT BLOCKS

UL (AC) A600	Thermal		10 AMP		DC RATING 250VDC	Thermal 120VDC	2.5 AMP 24VDC
	120V	240V	480V	600V			
MAKE	60	30	15	12	.27	.55	2.5
BREAK	6	3	1.5	1.2	.27	.55	2.5

Low Level Current Rating 12 Volt - 5mA.



Heavy Duty Lock Ring can be tightened with hand, flat screwdriver or tightening wrench.

Locator Pin can be snapped off for circle mounting, without notch.



LAMP SOCKETS

Full Voltage Type



BLN-VO
Requires
1 Contact Space

Lamp Socket Blocks - Standard Lamp Holders

Screw connection - full voltage
max. 380V, 2W (without BA9s bulb*)

Screw connection with lamp test connection (diode) full voltage
max. 300V, AC/DC, 2W (without BA9s bulb*)

* Add bulb (BA9 type) located on right side of page.

Catalog No.	List
BLN-VO	\$12.00
BLN-VP	\$36.00

BULBS - BA-9

Filament Type



Rated Voltage	Catalog No.	List
6V / 0.6W	BA006	\$3.90
6V / 1.5W	BA106	\$3.90
12V / 2W	BA012	\$3.90
24V / 2W	BA024	\$3.90
30V / 2.1W	BA030	\$3.90
48V / 2W	BA048	\$3.90
60V / 1.2W	BA060	\$3.90
130V / 2W	BA130	\$3.90

RESISTOR & TRANSFORMER TYPE HOLDERS

Series Resistor Type



BLN-VN
Requires
2 Contact Spaces

Series Resistor, screw connection
220-240V AC/DC with 130V 2W BA 9s bulb

with resistor, lamp test (diode), screw connection
220-240V AC/DC with 130V 2W BA 9s bulb

with resistor and diode, screw connection
220-240V AC with 130V 2W BA 9s bulb

Catalog No.	List
BLN-VN	\$39.00
BLN-VR	\$57.00
BLN-VD	\$57.00

Transformer Type



BLT
Requires
2 Contact Spaces

Transformer, 50/60 Hz, screw connection
110-120V/6V with 6V 1.2W BA 9s bulb
220-250V/6V with 6V 1.2W BA 9s bulb
380V/6V with 6V 1.2W BA 9s bulb
415-440V/6V with 6V 1.2W BA 9s bulb
480-500V/6V with 6V 1.2W BA 9s bulb

BLT-VJ	\$53.00
BLT-VN	\$53.00
BLT-VU	\$53.00
BLT-VW	\$53.00
BLT-VY	\$53.00

Neon Type



110V / 0,11W	BA110	\$20.00
220V / 0,33W	BA220	\$20.00

Flashing Light



BLM
Requires
3 Contact Spaces

Flashing Light Screw Connection
24V AC/DC with 24V 2W BA 9s bulb

with transformer, 50/60 Hz, screw connection
110-120V/6V with 6V 0.6W BA 9s bulb
220-250V/6V with 6V 0.6W BA 9s bulb
380V /6V with 6V 0.6W BA 9s bulb
415-440V/6V with 6V 0.6W BA 9s bulb
480-500V/6V with 6V 0.6W BA 9s bulb

BLM-VD	\$56.00
BTM-VJ	\$88.00
BTM-VN	\$88.00
BTM-VU	\$88.00
BTM-VW	\$88.00
BTM-VY	\$88.00

Contact Blocks

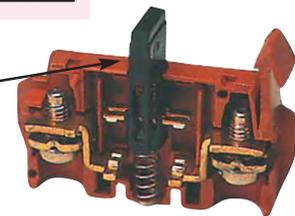


SES, SEU, SEV
Requires
1 Contact Space

	Catalog No.	List
1 NO	SES 10	\$8.50
1 NC	SES 01	\$8.50
2 NO	SEU 20	\$17.00
2 NC	SEU 02	\$17.00
1 NO, 1NC	SEU11	\$17.00
1NC(late Break)	SEV01	\$8.50
1NO(early opening)	SEV10	\$8.50

PATENTED SWITCHING FIDELITY!

Double/Parallel movable contacts. -- Plus contact wipe. Patented for Switching Fidelity!



ECONOMICAL

Multi - LED Bulbs (includes integrated socket)



EXTRA BENEFITS

- 100,000 hours
- High Voltage Peak Capability
- Very Bright with Multi LED
- 15 mA low power
- Excellent Resistance & Vibration
- 6 Color Option

LED Bulbs (all for BA9 Switch)

Catalog No.	- All BA9 Sockets	List
BLL-VND-⊕	24Volt AC/DC	\$34.00
BLL-VNJ-⊕	120Volt AC	\$34.00

⊕	Color Suffix			
-Y	Yellow	-O	Orange	
-G	Green	-W	White	
-R	Red	-B	Blue	

Ultra Bright Hi-Lumen LED's



Hi-Lumen Output LED Bulbs (BA9-Base)

Part No.	Description	LED List
HLR24	Red 24v AC/DC	\$50.00
HLY24	Yellow 24v AC/DC	50.00
HLG24	Green 24v AC/DC	87.00
HLR110	Red 110v AC	50.00
HLY110	Yellow 110v AC	50.00
HLG110	Green 110v AC	87.00

* Part number includes lamp holder.

22mm Selector Switches (Add "B30" - for 30mm size) add \$8.00 List for Polyamide & \$14.00 List for Metal
Example: Round Polyamide B30-BFK-1S \$24.00 List Round Metal B30-BMK-1S \$30.00 List

(Nema 12, 3R, 4X)



OPERATOR + CONTACT BLOCK = COMPLETE UNIT

Selector Switch Operators



Round Satin Metal Shown

Description	Color Type	Series BF22		Series BM22	
		Round Polyamide Knob Type	List \$	Round Satin Knob Type	List \$
2 Positions Maintained Operator 	Black	BFK-1S	\$16.00	BMK-1S	\$16.00
	Red	BFK-1R	16.00	BMK-1R	16.00
	Green	BFK-1G	16.00	BMK-1G	16.00
	Yellow	BFK-1Y	16.00	BMK-1Y	16.00
	Blue	BFK-1B	16.00	BMK-1B	16.00
3 Positions Maintained Operator 	Black	BFK-3S	\$16.00	BMK-3S	\$16.00
	Red	BFK-3R	16.00	BMK-3R	16.00
	Green	BFK-3G	16.00	BMK-3G	16.00
	Yellow	BFK-3Y	16.00	BMK-3Y	16.00
	Blue	BFK-3B	16.00	BMK-3B	16.00

4 and 5 position - next page. See page 176 and 177 for Legend plate options. Contact Blocks & Lamp Sockets on page 169.

ILLUMINATED Selector Switches (Add Lamps + lamp socket, and contact blocks to components below)

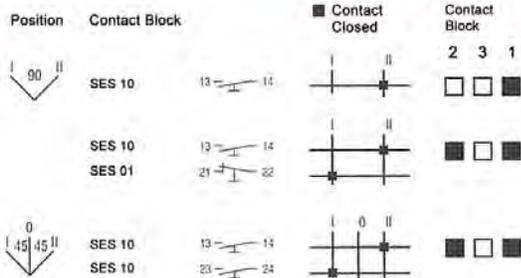


Round Polyamide Shown

Description	Color Type	Round Polyamide	List \$	Round Metal	List \$
2 Positions Maintained Operator 	Red	BFL-2R	\$20.60	BML-2R	\$20.60
	Green	BFL-2G	20.60	BML-2G	20.60
	Yellow	BFL-2Y	20.60	BML-2Y	20.60
	Blue	BFL-2B	20.60	BML-2B	20.60
	White	BFL-2W	20.60	BML-2W	20.60
	Clear	BFL-2C	20.60	BML-2C	20.60
3 Positions Maintained Operator 	Red	BFL-3R	\$20.60	BML-3R	\$20.60
	Green	BFL-3G	20.60	BML-3G	20.60
	Yellow	BFL-3Y	20.60	BML-3Y	20.60
	Blue	BFL-3B	20.60	BML-3B	20.60
	White	BFL-3W	20.60	BML-3W	20.60
	Clear	BFL-3C	20.60	BML-3C	20.60

SELECTOR SWITCH OPERATORS

CONTACT SELECTION



NOTE: Contact Selection - Other Options

A broad selection of contact switch targets is available through 5 position. Request fax from EEC Controls.

Long Lever Module

In Black as shown

Substitute "L" in place of "S" in 2 to 5 position selector switch. Available in Black only.

Example: BFK-1S change to BFK-1L
 Same list price.



Joystick Operator - All Momentary Operation

Round Polyamide

3 Position #BFN 2T \$47.00 LIST

5 Position #BFN 4T \$64.00 LIST

Round Metal

3 Position #BMN 2T \$47.00 LIST

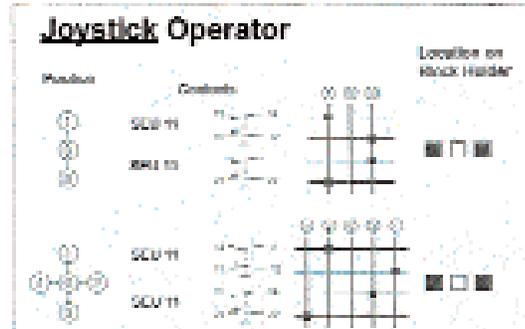
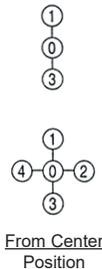
5 Position #BMN 4T \$64.00 LIST



Add standard Contact Block #SEU-11 \$17.00 List

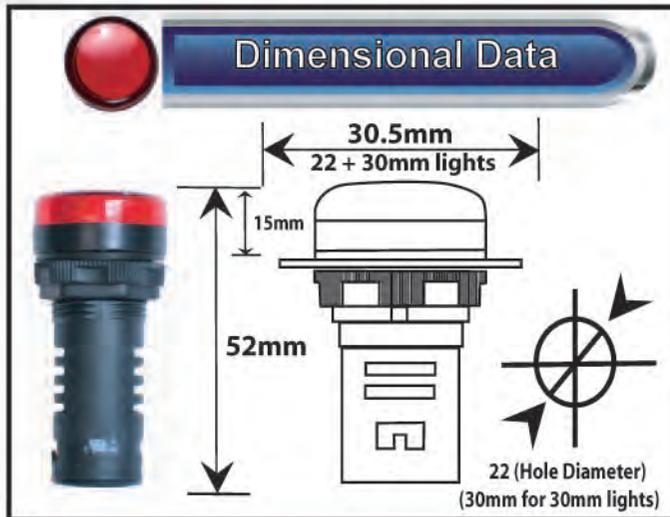
2 SEU-11 contact blocks are required per Joystick operator.

Other Joystick Operators available with maintained Operators.





LED Pilot Light's Modular 22mm + 30mm



List Price \$22.00 Per Light
100 + pcs. mix qty. \$16.00 Per Light

Part Numbers	Colors
B22LED-R-*	RED
B22LED-G-*	GREEN
B22LED-Y-*	YELLOW
B22LED-B-*	BLUE
B22LED-W-*	WHITE

* Add Voltage Suffix:

(*) Add Suffix for Colors	
-A	110VAC
-C	220VAC
-G	24VAC/DC
-O	48VAC/DC
-D	380VAC
-M	12VAC/DC

For 30mm LED pilot light simply Add suffix "30" to end of part # - Add \$9 to list.

Example - B22LED-R-A-30 \$31.00 List.



APPROVALS

EN 60947-5-1

-Operational Temperature - -13°+ 130°F

-Protection Degree NEMA 4X - IP65

-Current Draw -Ie MA<80- (6, 12v)
20- (24, 48), 110, 220V.

-Brightness = -cd/M² ≥ 60

-AC Rated Frequency = -50/60 HZ

-Saddle Clamp Screw Terminals.

Mounting - 22mm or 30mm hole diameter.

Discount Schedule "B"

PL-TERMINAL BLOCKS

KORNER



PL-FS10/10A
Fuse Blocks



PL-DP4
Double Deck

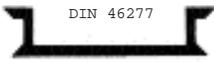


PL-OK433/12/LP
Terminal Strip



PL47223.62
PC Board

ACCESSORIES

Description	Part Number		List Price Per piece	Only sold in pkg. qty.
UL File # E73420, CSA File # 042739X0000		 RL-39 (39")		
DIN RAIL Aluminum with mounting holes	RL-39 RL-39H		\$ 6.00 \$ 11.00	5
DIN RAIL Galvanized, chromated, with mounting holes	RL-39-steel		\$ 4.00	5
Marking Tague (For specials, contact factory 1000 minimum)	PL-1-100 PL1-10x10 PL-Blank	# 1 through # 100 # 1 through # 10 (10 times) Blank, 100 tags	\$ 0.15 \$ 0.15 \$ 0.15	100 100 100
Din Rail Aluminum (easy to cut) 35mm wide, one meter	RL-5	 RL-5 (5")	\$ 2.00	

	Part Number	Width (mm)	Max. stranded wire size mm ≈	List Price Per Piece	Only sold in pkg. qty.
 Ground Terminal green and yellow color,  and CE approvals	PL-TE4	6	4 16-12	\$ 4.20	10
	PL-TE6	8	6 14-10	\$ 4.40	10
	PL-TE10	10	10 12- 8	\$ 4.40	10
	PL-TE16	12	12 10- 6	\$ 7.00	10
	PL-TE35	16	16 4- 2	\$10.00	10
	Fuse Block / Disconnect  , CE, 600V, 6.3 A, 5x20 mm fuse	PL-FS4	8	4	\$ 5.50
Fuse Block / Disconnect 5x20 mm 600V ,  / 10A, CSA, 16A, CE	PL-FS10/10A	12	10	\$ 7.50	10
End Cover PL-FS10/10A	PL-45787.00			\$ 0.90	10
Double Deck Terminal Block  , CE, 600V, 25A	PL-DP4	6	4	\$ 3.20	10
End Cover PL-DP4	PL-45789.00				

MULTIPLE TERMINALS

PC Board Mount 3 Pole Terminal, 300V, 15A,  CE, CSA					
Horizontal Pin	PL-47223.62	11.2	2.5	\$ 0.90	125
Base Mount Pin	PL-47203.62	11.2	2.5	\$ 0.90	125
Terminal Strip 12 Pole, cut-able  , CE, 300v, 20A, /CSA, 150A, 25A Custom markings on terminals available, 1000 pcs. minimum.	PL OK433/12/LP	116.7	3.2	\$ 3.10	10
For fewer poles, change "12" to the required # of poles, \$0.25 per pole - 100 pcs. pkg. qty. 3 Pole example: PLOK433/3/LP \$0.75					

Order example: 125 quantity PL-47223.62: customer to receive 125 terminals at \$12.50 total list price.
All terminals and accessories sold in package quantity multiples only.

Series PL - TERMINAL BLOCKS

Contact Factory for new "PC" Series economy line.

KORNER

Universal Compression Clamp. Heavy Duty Compact Design.

600 Volt,  , CSA, CE, VDE, DIN RAIL Mounted



Series PL Positive Lock Terminal Blocks 600V, 230° F

Amps 	Width (mm)	One Terminal Part #	Only Sold in pkg.	Max Wire Size mm	A W G	Height (mm)	Depth (mm)	
25 / 25	6	PL 2.5	\$ 0.72	100	2.5	18 - 12	44.8	41
30 / 30	6.5	PL 4	\$ 0.76	100	4	16 - 10	49.8	42
42 / 42	8	PL 6	\$ 0.78	100	6	14 - 8	49.8	42
50 / 50	10	PL 10	\$ 1.00	100	10	12 - 6	49.8	42
65 / 65	12	PL 16	\$ 1.60	50	16	10 - 4	54.8	50
90 / 90	18	PL 35	\$ 3.20	20	35	4 - 2	66.8	58
140/150	22	PL 70	\$ 4.60	20	95	3 - 2/0	82.8	75

All terminals 600V. Order example: 100 quantity PL 2.5: customer to receive 100 terminals at \$ 72.00 total list price. All terminals and accessories sold in package quantity multiple only.

ACCESSORIES				
Description	For Terminal #	Part # Per Piece	List Price Per Piece	Only sold in pkg. qty.
End Cover	PL 2.5	PL 45550.62	\$ 0.40	50
End Cover	PL 4, 6, 10	PL 45551.62	\$ 0.40	50
End Cover	PL 16	PL 45552.62	\$ 0.40	50
End Cover	PL 35	PL 45553.62	\$ 0.40	50
End Cover	PL 70	PL 45554.62	\$ 0.40	50
Jumpers To Electrically connect up to 10 terminals. Can be cut for shorter sizes	PL 2.5	PL 45440.00	\$ 5.00	10
	PL 4	PL 45441.00	\$ 5.50	10
	PL 6	PL 45442.00	\$ 6.00	10
	PL 10	PL 45443.00	\$ 6.00	10
	PL 16	PL 45444.00	\$ 6.00	10
	PL 35	PL 45445.00	\$ 6.00	10
	PL 70	PL 45446.00	\$ 16.00	10
			\$ 19.00	
End Block Clamp	all sizes	PL 45799.06	\$ 1.50	100
	all sizes	TBR-F	\$ 0.50	100
Seperator Plate	PL 2.5, 4, 6, 10	PL 45560.62	\$ 0.40	250
	PL 16	PL 45558.62	\$ 0.40	
	PL 35	PL 45557.62	\$ 0.40	
Test Plug Socket	all sizes	PL 45571.32	\$ 0.50	
Test Plug	all sizes	PL 45570.32	\$ 4.00	



Product Data Sheet



671 RZ XX Std

Replace "XX" with 01 through 30 for number of poles
Terminal Block– Closed Back
20 Amps, 250 Volts (AC/DC)



(6 Pole shown)

Copper Wire Only

Wire Range with Wire Binding Screw: #12 - #22 AWG

7/16" Centers

Application torque: 9 in. lbs

Electrical Ratings:

- 20A with Listed ring lug or unprepared wire, (Based on NEC Table 310-16, 75°C columns)
- 250 Volts AC/DC (UL 1059 Class B, User Group – Commercial Appliances)
- Short Circuit Current Rating: 10,000A (Default)
- Approved for Factory and Field Wiring.

Mechanical Ratings:

- Storage and transportation temperature range: -35°C to 110°C (-31°F to 230°F)*
 - Maximum insulator base temperature: 125°C (257°F)* UL RTI
 - Flammability rating of insulator base: UL 94V-0
- * Use outside these ratings needs to be judged in the end-use application.

Materials:

- Connector (Contact): Brass, tin plated.
- Insulator base: Glass-filled Polycarbonate (Thermoplastic)
- Drive screw (Rivet): Stainless steel
- Screw, #6-32 Binder head, Phil-Slot: Steel, nickel plated

Agency Approvals:

- UL Recognized, UL 1059 Terminal Block Standard, File No. XCFR2.E62806
- CSA Certified, CSA C22.2 No. 158, File No. LR19766
- CE compliant, IEC 60947-7-1
- RoHS Compliant

Wire Range:

Wire Size	Torque	Copper Wire Stranding Classes - Number of Strands		
		Solid	Class B	Class C
12	9 in. Lbs	1	7	19
14	9 in. Lbs	1	7	19
16	9 in. Lbs	1	7	19
18	9 in. Lbs	1	7	19
20	9 in. Lbs	1	7	19
22	9 in. Lbs	1	7	19

Suggested product mounting hardware: #6 fastener, torque to 10-15 in. lbs.

ACCESSORIES:

- Printing (for printing options, see Terminal Block Printing on website)

- Marking strips - sub mounted, black only (FB) (For Printing Options, see section on website)

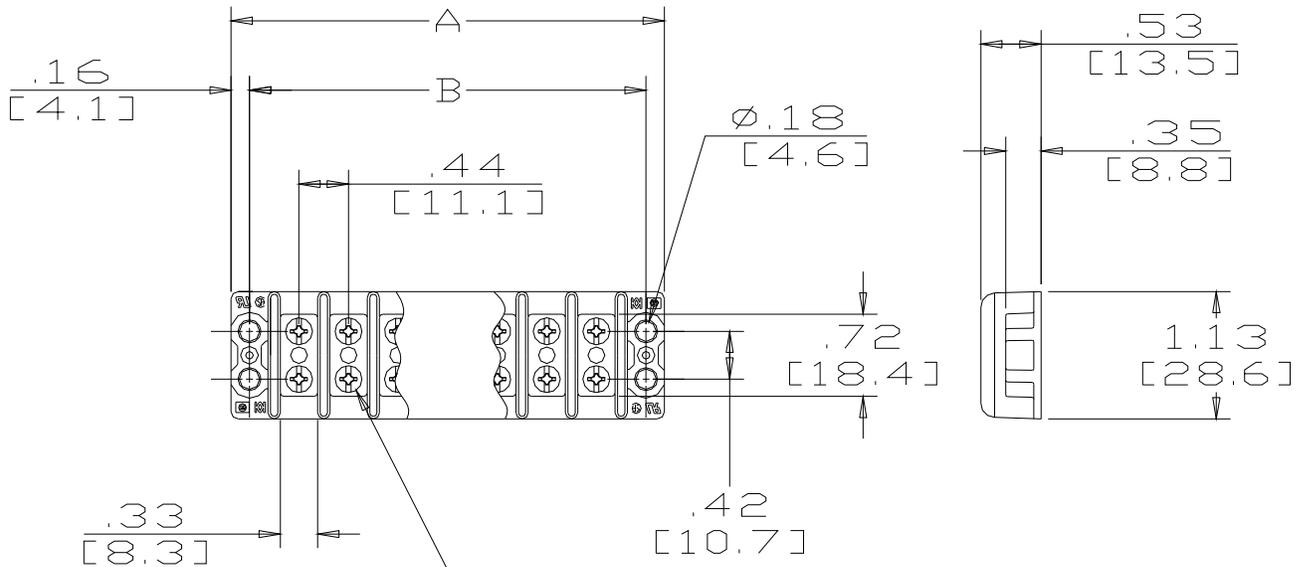


- Marking strips – top mounted, white only (SW)

- Cover – top mounted. Order CW (white) or CB (Black). Can be printed. See website.



- Phil-Slot Brass Screw (PSB)



#6-32 X .25 [6.4]
BD HD SCREW

Catalog No	# of Poles	Dimensions		X	Catalog No	# of Poles	Dimensions	
		A	B				A	B
671 RZ 01	1	1.19	0.88	X	671 RZ 16	16	7.75	7.44
671 RZ 02	2	1.62	1.31	X	671 RZ 17	17	8.19	7.88
671 RZ 03	3	2.06	1.75	X	671 RZ 18	18	8.62	8.31
671 RZ 04	4	2.50	2.19	X	671 RZ 19	19	9.06	8.75
671 RZ 05	5	2.94	2.63	X	671 RZ 20	20	9.50	9.19
671 RZ 06	6	3.37	3.06	X	671 RZ 21	21	9.93	9.62
671 RZ 07	7	3.81	3.50	X	671 RZ 22	22	10.37	10.06
671 RZ 08	8	4.25	3.94	X	671 RZ 23	23	10.81	10.50
671 RZ 09	9	4.68	4.37	X	671 RZ 24	24	11.24	10.93
671 RZ 10	10	5.12	4.81	X	671 RZ 25	25	11.68	11.37
671 RZ 11	11	5.56	5.25	X	671 RZ 26	26	12.12	11.81
671 RZ 12	12	5.99	5.68	X	671 RZ 27	27	12.55	12.24
671 RZ 13	13	6.43	6.12	X	671 RZ 28	28	12.99	12.68
671 RZ 14	14	6.87	6.56	X	671 RZ 29	29	13.43	13.12
671 RZ 15	15	7.31	7.00	X	671 RZ 30	30	13.86	13.55

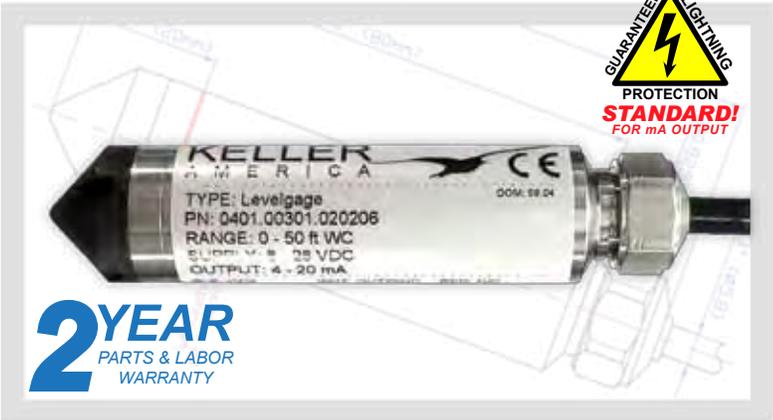
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WWW.MARATHONSP.COM
1-419-352-8441



General Purpose Submersible Level Transmitters **Levelgage™**

- ▶ **Leachate**
- ▶ **Wastewater**
- ▶ **Chemicals**
- ▶ **Hydrocarbons**
- ▶ **Groundwater**
- ▶ **Potable Water**
- ▶ **Landfills**
- ▶ **Wet Wells**
- ▶ **Lift Stations**
- ▶ **Tanks**
- ▶ **Reservoirs**
- ▶ **Monitoring Wells**



The Levelgage by Keller America is designed for indefinite submersion in a wide variety of liquid media. It provides a temperature-compensated analog output proportional to the height of the liquid column above the transmitter. Intended for general purpose monitoring and control applications, the Levelgage is a smart choice for OEMs, system integrators and end users alike. Keller America's guaranteed lightning protection makes this transmitter ideal for installation in areas prone to chronic damage due to transients caused by lightning.

Please consult the comparison chart below to determine if the Levelgage is the best solution for your specific application. Data sheets for Acculevel, Microlevel and other products are available upon request or by visiting our website, www.kelleramerica.com.

Product Comparison	Levelgage™	Acculevel™	Microlevel™
Accuracy	±1 or ±0.5% FS T.E.B.*	±0.25 or ±0.1% FS T.E.B.*	±0.25 or ±0.1% FS T.E.B.*
Custom Pressure Ranges	Yes	Yes	Yes
Available Pressure Range	0 – 3 thru 0 – 900 ft. WC	0 – 3 thru 0 – 900 ft. WC	0 – 3 thru 0 – 900 ft. WC
Compensated Temp. Range	-10 – 80°C	-10 – 80°C	0 – 50°C
Field Rangeability	No	Yes	Yes
Pressure Output	0 – 5 VDC, 0 – 10 VDC 4 – 20 mA	0 – 5 VDC, 0 – 10 VDC 4 – 20 mA, RS485	4 – 20 mA, RS485
Temperature Output	No	RS485	RS485
Wetted Materials	316L SS, Polyamide, Fluorocarbon	316L SS, Polyamide, Fluorocarbon	316L SS, Polyamide, Fluorocarbon
Electrical Termination	Vented Hytrel Cable	Vented Hytrel Cable	Vented Hytrel Cable
Relative cost	Lowest	Midrange	Highest

*see reverse, Note 3.

Addition of Option-009 or internal only protection (standard on all 4-20mA pressure transmitters) increases the minimum-required supply voltage, on account of internal resistance of the surge protectors. In addition, cable resistance* adds to the supply requirement. In order to insure proper system operation, calculate the minimum required supply voltage (at the source) as follows:

For two-part (internal+external) system (recommended):
 MINIMUM SUPPLY VOLTAGE = 10.75 + 0.025 (CABLE LENGTH x 0.07) VDC

For internal only protector (standard with 4-20mA output):
 MINIMUM SUPPLY VOLTAGE = 9.65 + 0.025 (CABLE LENGTH x 0.07) VDC

*Cable resistance = ~70Ω / 1000ft

Levelgage



Specifications

Level range (user specified) _{1,2}	Infinite between 0 – 3 thru 0 – 900 ft. WC		
Accuracy, TEB ₃	Standard: ±1%FS	Optional: ±0.5% FS	
Compensated Temperature Range	-10 – 80°C		
Operating Temperature Range	-10 – 80°C		
Supply ₄	VDC	8 – 28 VDC	13 – 28 VDC
Output	2 wire	4 – 20 mA ₅	
	3 wire	0 – 5 VDC	0 – 10 VDC
Load Resistance (Ω)	mA: < (Supply - 8V) / 0.02A		VDC: > 4KΩ
Wetted Materials	Std. 316L S.S., polyamide, Fluorocarbon		
Environmental Protection	IP68		
Cable ₆	Std. Hytrel-jacketed, vented & shielded (Optional Tefzel® or Polyethylene jackets)		

Notes

1. The Levelgage can be provided with custom calibration at no extra cost for fluids other than water, provided the specific gravity is given at the time the order is placed.

2. Level range may be specified in units of lb/in² (psi), inches WC or feet WC. Keller America uses the International Standard conversion of 2.3067 feet WC/psi.

3. TEB: Total Error Band; Includes the combined effects of non-linearity, hysteresis and non-repeatability as well as thermal dependencies, over the compensated temperature range.

4. Nominal values may be higher depending upon cable length. Cable resistance = ~70Ω / 1000ft. Consult reverse side for minimum supply voltage guidelines.

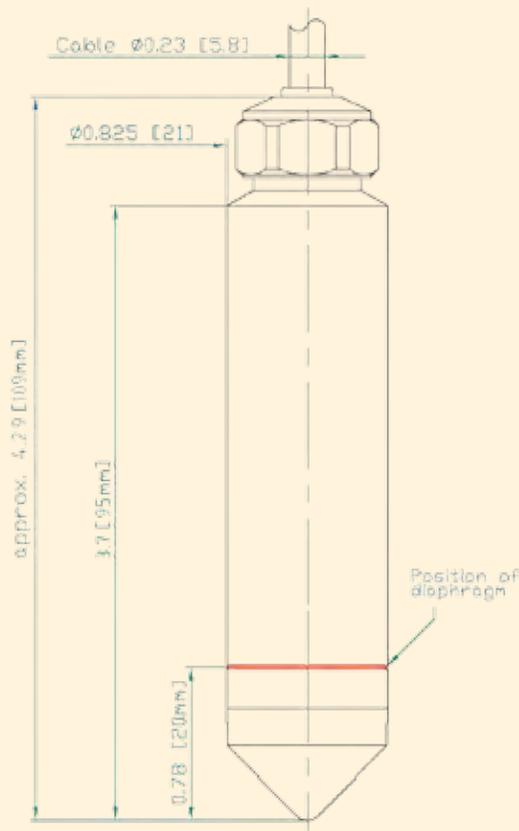
5. The drain / shield is connected to the electronics ground. For lightning protection to function properly (4-20mA only) the shield wire **must be connected to a good earth ground!**

Wiring Configuration

Configuration	White	Red	Black
2 Wire (mA)	OUT / GND	N / A	+Vcc
3 Wire (VDC)	GND	+OUT	+Vcc

Braided shield wire connected to transmitter housing

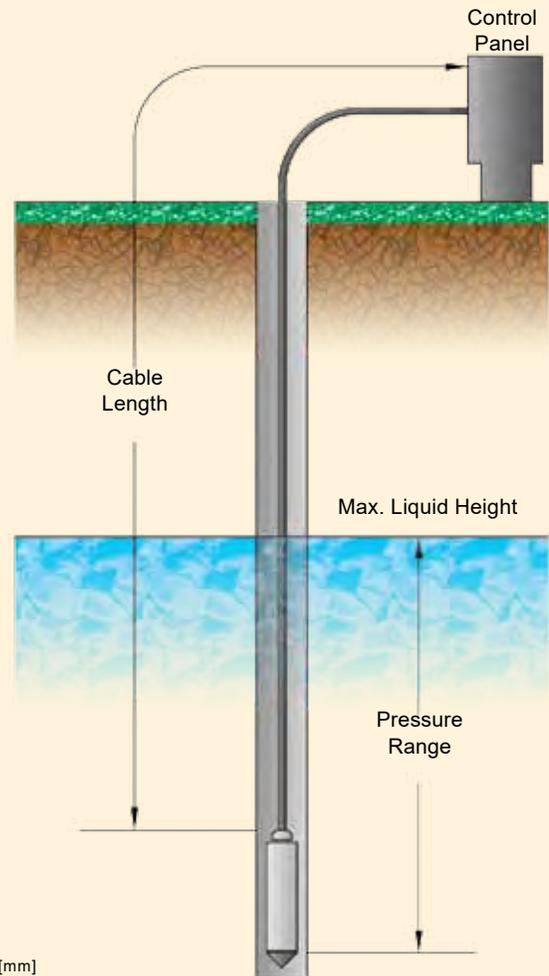
Dimensions



How to Order:

Please specify "Levelgage, pressure (or level) range, accuracy, output and cable length".

Dimensions in inches [mm]



Note: Dimensions & specifications are subject to change without notice. For the most accurate and up to date information on all products please visit our website.

Options & Accessories

- ▶ Drying Tube Assembly (Desiccant)
- ▶ Open Face Nose Cap

- ▶ Bellows Assembly
- ▶ Conduit Fitting

- ▶ Stabilizing Weight
- ▶ Termination Enclosure

ATTACHMENT D
Prevailing Wage Schedule



Andrew M. Cuomo, Governor

Roberta Reardon, Commissioner

Town of Beekman
Eric Rogge, Professional Engineer
Hudson Land Design P.C.
174 Main Street
Beacon NY 12508

Schedule Year 2019
Date Requested 07/01/2019
PRC# 2019008454

Location Beekman
Project ID#
Project Type Water System Improvements- Replacement water storage tank and booster pumps.

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 2019 through June 2020. 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.ny.gov. 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 form 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

Every contractor and subcontractor MUST keep original payrolls or transcripts subscribed and affirmed as true under penalty of perjury. Payrolls must be maintained for at least three (3) years from the project's date of completion. At a minimum, 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 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 NYS DOL 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 journeyworkers 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 or is performing work outside the classification of work for which the apprentice is indentured, must be paid the prevailing journeyworker's wage rate for the classification of work the employee is actually performing.

NYS DOL 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

Town of Beekman
Eric Rogge, Professional Engineer
Hudson Land Design P.C.
174 Main Street
Beacon NY 12508

Schedule Year 2019
Date Requested 07/01/2019
PRC# 2019008454

Location Beekman
Project ID#
Project Type Water System Improvements- Replacement water storage tank and booster pumps.

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.ny.gov. 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.ny.gov 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:

https://labor.ny.gov/workerprotection/safetyhealth/dosh_training.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://ophp.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: lsingletin@keene.edu

(800) 449-6742

www.keene.edu/courses/print/courses_osh.cfm

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



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.ny.gov) 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
Rofer	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

Dutchess County General Construction

Boilermaker **07/01/2019**

JOB DESCRIPTION Boilermaker

DISTRICT 4

ENTIRE COUNTIES

Bronx, Dutchess, Kings, Nassau, New York, Orange, Putnam, Queens, Richmond, Rockland, Suffolk, Sullivan, Ulster, Westchester

WAGES

Per Hour:	07/01/2019	01/01/2020
Boilermaker	\$ 59.17	\$ 61.24
Repairs & Renovations	59.17	61.24

SUPPLEMENTAL BENEFITS

Per Hour:	07/01/2019	01/01/2020
Boilermaker	32% of hourly	32% of hourly
Repair \$ Renovations	Wage Paid + \$ 25.35	Wage Paid + \$ 25.38

NOTE: "Hourly Wage Paid" shall include any and all premium(s) pay.

Repairs & Renovation Includes replacement of parts and repairs & renovation of existing unit.

OVERTIME PAY

See (D, O) on OVERTIME PAGE
 Repairs & Renovation see (B,E,Q)

HOLIDAY

Paid: See (8, 16, 23, 24) on HOLIDAY PAGE
 Overtime: See (5, 6, 8, 11, 12, 15, 16, 22, 23, 24, 25) on HOLIDAY PAGE

NOTE: *Employee must work in pay week to receive Holiday Pay.
 **Employee gets 4 times the hourly wage rate for working Labor Day.

REGISTERED APPRENTICES

Wage per hour:
 (1/2) Year Terms at the following percentage of Boilermaker's Wage

1st	2nd	3rd	4th	5th	6th	7th
65%	70%	75%	80%	85%	90%	95%

Supplemental Benefits Per Hour:

	07/01/2019	01/01/2020
Apprentice(s)	32% of Hourly Wage Paid Plus Amount Below	32% of Hourly Wage Paid Plus Amount Below
1st Term	\$ 19.38	\$ 19.41
2nd Term	20.24	20.26
3rd Term	21.08	21.11
4th Term	21.94	21.96
5th Term	22.79	22.82
6th Term	23.65	23.68
7th Term	24.48	24.52

NOTE: "Hourly Wage Paid" shall include any and all premium(s)

4-5

Carpenter **07/01/2019**

JOB DESCRIPTION Carpenter

DISTRICT 8

ENTIRE COUNTIES

Dutchess, Orange

WAGES

Per hour: 07/01/2019

Building:
 Millwright \$ 43.05

SUPPLEMENTAL BENEFITS

Per hour:

Journeyman \$ 40.11

OVERTIME PAY

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

HOLIDAY

HOLIDAY:

Paid: See (18,19) on HOLIDAY PAGE.

Paid: See (5,6,11,13,16,18,19,25) for 1st & 2nd yr.Apprentices

Overtime: See (5,6,11,13,16,18,19,25) on HOLIDAY PAGE.

REGISTERED APPRENTICES

Wages per hour:

One (1) year terms:

1st	2nd	3rd	4th
\$23.15	\$27.36	\$31.57	\$39.99

Supplemental benefits per hour:

1st	2nd	3rd	4th
\$27.55	\$29.87	\$32.69	\$36.84

8-740.2

Carpenter

07/01/2019

JOB DESCRIPTION Carpenter

DISTRICT 8

ENTIRE COUNTIES

Dutchess

PARTIAL COUNTIES

Orange: : The territory west demarcated by a line drawn from the Bear Mountain Bridge continuing east to the Bear Mountain Circle. The territory south demarcated by a line continuing north on 9W to the town of Cornwall where County Road 107 (also known as Quaker Rd) crosses under 9W to the centerline of Route 32, The territories south and east heading 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

Per hour: 07/01/2019

Carpet/Resilient

Floor Coverer \$ 31.57

INCLUDES HANDLING & INSTALLATION OF ARTIFICIAL TURF AND SIMILAR TURF INDOORS/OUTDOORS.

SUPPLEMENTAL BENEFITS

Per hour:

\$ 29.12

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (18, 19) on HOLIDAY PAGE

Paid for 1st & 2nd yr.

Apprentices: See (5, 6, 11, 13, 16, 18, 19, 25)

Overtime: See (5, 6, 11, 13, 16, 18, 19, 25) on HOLIDAY PAGE.

REGISTERED APPRENTICES

Wage per hour - (1) year terms:

1st	2nd	3rd	4th
\$14.99	\$17.98	\$20.97	\$23.97

Supplemental Benefits per hour - All apprentice terms:

\$ 18.67

8-2287D&O

Carpenter

07/01/2019

JOB DESCRIPTION Carpenter

DISTRICT 8

ENTIRE COUNTIES

Bronx, Dutchess, Kings, Nassau, New York, Orange, Putnam, Queens, Richmond, Rockland, Suffolk, Westchester

WAGES

Per Hour: 07/01/2019

Marine Construction:

Marine Diver \$ 69.22
 Marine Tender 49.14

SUPPLEMENTAL BENEFITS

Per Hour:

Journeyworker \$ 51.58

OVERTIME PAY

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

HOLIDAY

Paid: See (18, 19) on HOLIDAY PAGE
 Overtime: See (5, 6, 10, 11, 13, 16, 18, 19) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour:
 One (1) year terms.

1st year \$ 21.85
 2nd year 27.32
 3rd year 35.51
 4th year 43.70

Supplemental Benefits
 Per Hour:

All terms \$ 33.97

8-1456MC

Carpenter - Building / Heavy&Highway

07/01/2019

JOB DESCRIPTION Carpenter - Building / Heavy&Highway

DISTRICT 11

ENTIRE COUNTIES

Columbia, Dutchess, Orange, Sullivan, Ulster

WAGES

WAGES:(per hour)	07/01/2019	01/01/2020	07/01/2020
BUILDING/HEAVY&HIGHWAY/TUNNEL		Additional	Additional
Carpenter, Dockbuilder, Piledriver, Dive Tender, and Diver (Dry)	\$ 33.39 + 4.70*	\$ 0.50	\$ 0.90
Diver (Wet)	\$ 50.00 + 4.70*		

* Amount paid on all hours, it is not subject to overtime premium

SHIFT DIFFERENTIAL: When mandated by a Government Agency irregular or off shift can be worked. The Carpenter shall receive an additional fifteen percent (15%) of wage plus applicable benefits.

NOTE: Carpenters employed in the removal or abatement of asbestos or any toxic or hazardous material or required to work near asbestos or any toxic or hazardous material and required to wear protective equipment shall receive two (2) hours extra pay per day, plus applicable benefits.

SUPPLEMENTAL BENEFITS

Per hour:
 Journeyworker \$ 27.56

OVERTIME PAY

BUILDING:
 See (B, E, Q) on OVERTIME PAGE.

HEAVY&HIGHWAY/TUNNEL:

See (B, E, P, *R, **T, X) on OVERTIME PAGE.

*R applies to Heavy&Highway/Tunnel Overtime Holiday Code 25 with benefits at straight time rate.

**T applies to Heavy&Highway/Tunnel Overtime Holiday Codes 5 & 6 with benefits at straight time rate.

HOLIDAY

BUILDING:

Paid: See (1) on HOLIDAY PAGE.

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

Holidays that fall on Sunday will be observed Monday.

HEAVY&HIGHWAY/TUNNEL:

Paid: See (5, 6, 25) on HOLIDAY PAGE including benefits.

Overtime: See (5, 6, 25) on HOLIDAY PAGE.

REGISTERED APPRENTICES

1 Year terms at the following wage rates.

Indentured after July 1 2016

07/01/2019

1st	2nd	3rd	4th	5th
\$16.70	\$20.03	\$21.70	\$23.37	\$26.71
+ 2.55*	+ 2.55*	+ 2.55*	+ 2.55*	+ 2.55*

Indentured before July 1 2016

07/01/2019

1st	2nd	3rd	4th
\$16.70	\$20.03	\$23.37	\$26.71
+ 2.55*	+ 2.55*	+ 2.55*	+ 2.55*

*Amount paid on all hours, it is not subject to overtime premiums

SUPPLEMENTAL BENEFITS per hour:

All terms \$ 16.38

11-279.2B/H&H

Electrician

07/01/2019

JOB DESCRIPTION Electrician

DISTRICT 11

ENTIRE COUNTIES

Orange, Putnam, Rockland

PARTIAL COUNTIES

Dutchess: Towns of Fishkill, East Fishkill, and Beacon.

WAGES

Per hour:

	07/01/2019	04/01/2020
Electrician Wireman/Technician	\$ 45.00	\$ 46.00

SHIFT DIFFERENTIAL: On Public Work in New York State when shift work is mandated either in the job specifications or by the contracting agency, the following rates apply:

Shift worked between 4:30pm & 12:30am	\$ 52.80	\$ 53.97
Shift worked between 12:30am & 8:30am	\$ 59.14	\$ 60.46

NOTE ADDITIONAL AMOUNTS PAID FOR THE FOLLOWING WORK LISTED BELOW (subject to overtime premiums):

- On jobs where employees are required to work from boatswain chairs, swinging scaffolds, etc., forty (40) feet or more above the ground, or under compressed air, using Scottair packs, gas masks or in shafts or tunnels, they shall receive an additional \$2.00 per hour above the regular straight time rate.
- Journeyman Wireman when performing welding or cable splicing: \$2.00 above the Journeyman Wireman rate of pay.
- Journeyman Wireman required to have a NYS Asbestos Certificate: \$2.00 above the Journeyman Wireman rate of pay.
- Journeyman Wireman required to have a CDL: \$2.00 above the Journeyman Wireman rate of pay.

SUPPLEMENTAL BENEFITS

Per hour:

	07/01/2019	04/01/2020
Journeyman	\$ 31.02 plus 3% of straight	\$ 32.38 plus 3% of straight

or premium wage or premium wage

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
 Overtime: See (5, 6, 13, 15, 16, 25) on HOLIDAY PAGE

When the holiday falls on a Saturday it is observed the Friday before. When the holiday falls on a Sunday it is observed on the Monday after.

REGISTERED APPRENTICES

WAGES:

(1)year terms at the following rates

	1st	2nd	3rd	4th	5th	6th
07/01/2019						
1st Shift	\$12.90	\$17.20	\$21.50	\$25.80	\$30.10	\$32.25
2nd Shift	\$13.76	\$18.35	\$22.93	\$27.52	\$32.10	\$34.40
3rd Shift	\$14.74	\$19.66	\$24.57	\$29.49	\$34.40	\$36.86
04/01/2020						
1st Shift	\$13.20	\$17.60	\$22.00	\$26.40	\$30.80	\$33.00
2nd Shift	\$15.49	\$20.65	\$25.81	\$30.98	\$36.14	\$38.72
3rd Shift	\$17.09	\$23.13	\$28.91	\$34.70	\$40.48	\$43.47

SUPPLEMENTAL BENEFITS per hour:

07/01/2019	
1st term	\$ 14.92 plus 3% of straight or premium wage
2nd term	\$ 16.42 plus 3% of straight or premium wage
3rd term	\$ 18.42 plus 3% of straight or premium wage
4th term	\$ 19.92 plus 3% of straight or premium wage
5th & 6th term	\$ 21.92 plus 3% of straight or premium wage

11-363/1

Electrician

07/01/2019

JOB DESCRIPTION Electrician

DISTRICT 11

ENTIRE COUNTIES

Sullivan, Ulster

PARTIAL COUNTIES

Delaware: Only in the Townships of Andes, Harpersfield, Kortwright, Stamford, Bovina, Roxbury, Middletown and those portions of Colchester and Hancock south of the East Branch of the Delaware River.

Dutchess: All of the county except for the towns of Fishkill, East Fishkill, and Beacon.

Greene: That portion of the county south of a line following the south limits of the city of Catskill in a Westerly direction from the Hudson River to Highway 23A along 23A to the road following the Little Westkill and continuing along this road to Delaware County.

WAGES

Per hour:

Electrician Wireman/ Technician Electrical/Technician Projects	07/01/2019	04/01/2020
under \$ 250,000.00	\$ 41.00	\$ 42.00
over \$ 250,000.00	\$ 45.00	\$ 46.00

SHIFT DIFFERENTIAL: On Public Work in New York State when shift work is mandated either in the job specifications or by the contracting agency, the following rates apply:

Shift worked between 4:30pm & 12:30am

Electrical/Technician Projects		
under \$ 250,000.00	\$ 48.11	\$ 49.28
over \$ 250,000.00	\$ 52.80	\$ 53.97

Shift worked between 12:30am & 8:30am

Electrical/Technician Projects		
under \$ 250,000.00	\$ 53.88	\$ 55.20
over \$ 250,000.00	\$ 59.14	\$ 60.46

NOTE ADDITIONAL AMOUNTS PAID FOR THE FOLLOWING WORK LISTED BELOW (subject to overtime premiums):

- On jobs where employees are required to work from boatswain chairs, swinging scaffolds, etc., forty (40) feet or more above the ground, or under compressed air, using Scottair packs, gas masks or in shafts or tunnels, they shall receive an additional \$2.00 per hour above the regular straight time rate.

- Journeyman Wireman when performing welding or cable splicing: \$2.00 above the Journeyman Wireman rate of pay
- Journeyman Wireman required to have a NYS Asbestos Certificate: \$2.00 above the Journeyman Wireman rate of pay
- Journeyman Wireman required to have a CDL: \$2.00 above the Journeyman Wireman rate of pay.

SUPPLEMENTAL BENEFITS

Per hour:	07/01/2019	04/01/2020
Journeyman	\$ 31.02 plus 3% of straight or premium wage	\$ 32.38 plus 3% of straight or premium wage

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
 Overtime: See (5, 6, 13, 15, 16, 25) on HOLIDAY PAGE

When the holiday falls on a Saturday it is observed the Friday before. When the holiday falls on a Sunday it is observed on the Monday after.

REGISTERED APPRENTICES

WAGES:

(1)year terms at the following rates

	1st	2nd	3rd	4th	5th	6th
07/01/2019						
1st Shift	\$12.90	\$17.20	\$21.50	\$25.80	\$30.10	\$32.25
2nd Shift	\$13.76	\$18.35	\$22.93	\$27.52	\$32.10	\$34.40
3rd Shift	\$14.74	\$19.66	\$24.57	\$29.49	\$34.40	\$36.86
04/01/2020						
1st Shift	\$13.20	\$17.60	\$22.00	\$26.40	\$30.80	\$33.00
2nd Shift	\$15.49	\$20.65	\$25.81	\$30.98	\$36.14	\$38.72
3rd Shift	\$17.09	\$23.13	\$28.91	\$34.70	\$40.48	\$43.47

SUPPLEMENTAL BENEFITS per hour:

07/01/2019

1st term	\$ 14.92 plus 3% of straight or premium wage
2nd term	\$ 16.42 plus 3% of straight or premium wage
3rd term	\$ 18.42 plus 3% of straight or premium wage
4th term	\$ 19.92 plus 3% of straight or premium wage
5th & 6th term	\$ 21.92 plus 3% of straight or premium wage

11-363/2

Elevator Constructor

07/01/2019

JOB DESCRIPTION Elevator Constructor

DISTRICT 1

ENTIRE COUNTIES

Columbia, Dutchess, Greene, Orange, Putnam, Sullivan, Ulster

PARTIAL COUNTIES

Delaware: Towns of Andes, Bovina, Colchester, Davenport, Delhi, Harpersfield, Hemdon, Kortright, Meredith, Middletown, Roxbury, Hancock & Stamford

Rockland: Only the Township of Stony Point.

Westchester: Only the Townships of Bedford, Lewisboro, Cortland, Mt. Kisco, North Salem, Pound Ridge, Somers and Yorktown.

WAGES

Per Hour	07/01/2019	01/01/2020
Mechanic	\$ 58.57	\$ 60.49
Helper	70% of Mechanic Wage Rate	70% of Mechanic Wage Rate

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

***Four (4), ten (10) hour days are not permitted for Contract Work/Repair Work

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

	07/01/2019	01/01/2020
Journeyman/Helper	\$ 33.705*	\$ 34.825*

(*)Plus 6% of regular hourly if less than 5 years of service. Plus 8% of regular hourly rate if more than 5 years of service.

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

Note: When a paid holiday falls on Saturday, it shall be observed on Friday. When a paid holiday falls on Sunday, it shall be observed on Monday.

REGISTERED APPRENTICES

Wages per hour:

0-6 mo*	6-12 mo	2nd yr	3rd yr	4th yr
50 %	55 %	65 %	70 %	80 %

(*)Plus 6% of the hourly rate, no additional supplemental benefits.

Supplemental Benefits per hour worked:

Same as Journeyman/Helper

1-138

Glazier **07/01/2019**

JOB DESCRIPTION Glazier

DISTRICT 8

ENTIRE COUNTIES

Bronx, Dutchess, Kings, Nassau, New York, Orange, Putnam, Queens, Richmond, Rockland, Suffolk, Sullivan, Ulster, Westchester

WAGES

Per hour: 7/01/2019

Glazier	\$ 56.25
*Scaffolding	57.25
Glass Tinting & Window Film	28.74
**Repair & Maintenance	28.74

*Scaffolding includes swing scaffold, mechanical equipment, scissor jacks, man lifts, booms & buckets 24' or more, but not pipe scaffolding.

**Repair & Maintenance- All repair & maintenance work on a particular building, whenever performed, where the total cumulative contract value is under \$100,000. All Glass tinting, window film, regardless of material or intended use, and all affixing of decals to windows or glass.

SUPPLEMENTAL BENEFITS

Per hour: 7/01/2019

Journeyworker	\$ 33.39
Glass tinting & Window Film	19.39
Repair & Maintenance	19.39

OVERTIME PAY

See (C*,D* E2, O) on OVERTIME PAGE. (Premium is applied to the respective base wage only.)

* If an optional 8th hour is required to complete the entire project, the same shall be paid at the regular rate of pay. If a 9th hour is worked, then both hours or more (8th & 9th or more) will be paid at double time rate of pay.

For 'Repair & Maintenance' and 'Glass Tinting & Window Film' see (B, B2, F, P) on overtime page.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (4, 6, 16, 25) on HOLIDAY PAGE

For 'Repair & Maintenance' and 'Glass Tinting & Window Film' see (5, 6, 16, 25)

REGISTERED APPRENTICES

Wage per hour:

(1) year terms at the following wage rates:

7/01/2019

1st term	\$ 19.44
2nd term	27.59
3rd term	33.35
4th term	44.77

Supplemental Benefits:

(Per hour)

1st term	\$ 15.86
2nd term	22.12
3rd term	24.41
4th term	28.76

8-1281 (DC9 NYC)

Insulator - Heat & Frost

07/01/2019

JOB DESCRIPTION Insulator - Heat & Frost

DISTRICT 8

ENTIRE COUNTIES

Dutchess, Orange, Putnam, Rockland, Westchester

WAGES

Per hour: 07/01/2019

Insulator \$ 54.00

Discomfort & Additional Training** \$ 56.94

Fire Stop Work* \$ 28.94

* Applies on all exclusive Fire Stop Work (When contract is for Fire Stop work only). No apprentices on these contracts only.

**Applies to work requiring; garb or equipment worn against the body not customarily worn by insulators; psychological evaluation; special training, including but not limited to "Yellow Badge" radiation training

Note: Additional \$0.50 per hour for work 30 feet or more above floor or ground level.

SUPPLEMENTAL BENEFITS

Per hour:

Journeyworker \$ 33.35

Discomfort & Additional Training \$ 35.27

Fire Stop Work:
 Journeyworker \$ 17.02

OVERTIME PAY

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

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Note: Last working day preceding Christmas and New Years day, workers shall work no later than 12:00 noon and shall receive 8 hrs pay.

Overtime: See (2*, 4, 6, 16, 25) on HOLIDAY PAGE.

*Note: Labor Day triple time if worked.

REGISTERED APPRENTICES

(1) year terms:

Insulator Apprentices:

1st	2nd	3rd	4th
\$ 28.94	\$ 33.95	\$ 38.96	\$ 43.98

Discomfort & Additional Training Apprentices:

1st	2nd	3rd	4th
\$ 30.41	\$ 35.71	\$ 41.02	\$ 46.33

Supplemental Benefits paid per hour:

Insulator Apprentices:	
1st term	\$ 17.02
2nd term	20.28
3rd term	23.55
4th term	26.82

Discomfort & Additional Training Apprentices:	
1st term	\$ 17.98
2nd term	21.43
3rd term	24.90
4th term	28.36

8-91

Ironworker

07/01/2019

JOB DESCRIPTION Ironworker

DISTRICT 11

ENTIRE COUNTIES

Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster

WAGES

Per hour:	07/01/2019	07/01/2020
		Additional
Structural	\$ 47.83	\$ 2.15
Reinforcing*	47.83	2.15
Ornamental	47.83	2.15
Chain Link Fence	47.83	2.15

*NOTE: For Reinforcing classification ONLY, Ironworker 4-46Reinf rates apply in Rockland County's southern section (south of Convent Road and east of Blue Hills Road).

On Government Mandated Irregular Work Days or Shift Work, the following wage will be paid:

1st Shift	\$ 47.83
2nd Shift	60.91
3rd Shift	65.26

SUPPLEMENTAL BENEFITS

Per hour:	
Journeyman	\$ 39.34

OVERTIME PAY

See (B1, Q, V) on OVERTIME PAGE

HOLIDAY

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

If a holiday falls on Saturday, it will be observed Friday. If a holiday falls on Sunday, it will be observed Monday.

REGISTERED APPRENTICES

Wages:

(1) year terms at the following wage:

	1st yr	2nd yr	3rd yr	4th yr
1st Shift	\$ 23.92	\$ 28.70	\$ 33.49	\$ 38.26
2nd Shift	32.54	38.21	43.89	49.55
3rd Shift	35.41	41.38	47.36	53.31

Supplemental Benefits per hour:

1st year	\$ 33.52
2nd year	34.68
3rd year	35.85
4th year	37.01

11-417

Laborer - Building

07/01/2019

JOB DESCRIPTION Laborer - Building

DISTRICT 11

ENTIRE COUNTIES

Dutchess

PARTIAL COUNTIES

Columbia: Only the Townships of Greenport, Claverack, Philmont, Clermont, Germantown, Livingston, Hillsdale, Gallatin, Copake, Ancram, Taghkanic and the City of Hudson.

WAGES

ALL WORK RELATED WITH TOXIC OR ANY ASBESTOS OR HAZARDOUS MATERIAL

WAGES: (per hour)

07/01/2019

Premium

\$ 40.50

These rates will cover all work within five feet of the building foundation line.

Shift Differential: On all Governmental mandated irregular or off shift work, an additional 25% of wage is required. The 25% shift differential will be paid on public works contract for shifts or irregular workdays outside the normal working hours for 2nd and 3rd shifts or irregular work day or when mandated or required by state, federal, county, local or other governmental agency contracts.

SUPPLEMENTAL BENEFITS

Per hour:

Journeyman

\$ 29.18

Shift

\$ 35.72

OVERTIME PAY

See (B, E, E5, Q) on OVERTIME PAGE

HOLIDAY

Paid:

See (1) on HOLIDAY PAGE

Overtime:

See (5, 6, 16, 25) on HOLIDAY PAGE

Holidays that fall on Saturday shall be observed on Friday, when holidays fall on Sunday they shall be observed on Monday.

REGISTERED APPRENTICES

1000 hour terms at the following wage rate:

1st term

\$ 19.77

2nd term

\$ 23.37

3rd term

\$ 26.96

4th term

\$ 30.56

Supplemental Benefits per hour:

Apprentices

\$ 24.10

Shift

\$ 29.27

11-17tox B

Laborer - Building

07/01/2019

JOB DESCRIPTION Laborer - Building

DISTRICT 8

ENTIRE COUNTIES

Dutchess

PARTIAL COUNTIES

Columbia: Only the Townships of Ancram, Claverack, Clermont, Copake, Gallatin, Germantown, Greenport, Hillsdale, Hudson, Livingston, Philmont and Taconic.

WAGES

GROUP # 1:

All Laborers except those listed in Group 2

GROUP # 2:

Blaster, Laser Beam Oper., Asphalt Rakers, & Drilling Equipment Only Where a Separate Air Compressor Unit Supplies Power

WAGES per hour

07/01/2019

GROUP # 1

\$ 32.10*

GROUP # 2

34.45*

*Subtract \$ 4.50 to calculate overtime premium

Note: Any job requiring Hazwopper Certification will pay \$1.00 above job classification wage rate.

SUPPLEMENTAL BENEFITS

Per hour:

Journeyman \$ 28.35

OVERTIME PAY

See (B, F, R) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

Note: Whenever a holidays falls on Sunday, it will be observed on the following Monday.

REGISTERED APPRENTICES

Wages per hour: 07/01/2019

1000 Hour terms

1st term	\$ 19.25
2nd term	23.05
3rd term	27.55
4th term	32.55
5th term	32.10

Note: Any job requiring Hazwopper Certification will pay \$1.00 above job classification wage rate.

Supplemental Benefits per hour:

1st term	\$ 13.85
2nd term	16.00
3rd term	17.50
4th term	17.50
5th term	28.35

8-235

Laborer - Heavy&Highway

07/01/2019

JOB DESCRIPTION Laborer - Heavy&Highway

DISTRICT 8

ENTIRE COUNTIES

Dutchess

PARTIAL COUNTIES

Columbia: Only the Townships of Ancram, Claverack, Clermont, Copake,Gallatin, Germantown, Greenport, Hillsdale, Hudson, Livingston, Philmont and Taconic.

WAGES

GROUP # 1:

Flagperson, Placing & maintenance of all flares, cones, lights, signs, barricades, traffic patterns and all reflective type materials for traffic control, custodial work, traffic directors, temporary heat or light tenders, tool room.

GROUP # 2:

All Other Classifications not listed in Group # 1 or Group # 3

GROUP # 3:

Asphalt Raker, Asphalt Screedman, Drilling Equipment Only Where a Separate Air Compressor Unit Supplies Power, Laser Beam Operator, Metal Form Setters/Aligners (sidewalk), Blaster,

WAGES per hour 07/01/2019

Group # 1	\$ 29.40*
Group # 2	33.16*
Group # 3	34.16*

*Subtract \$.50 to calculate overtime premium

Note: All employees working on a project that requires Hazwopper Certification will receive \$1.00 per hour over job classification rate of pay. All employees who work an irregular work day that starts after 9:00 AM on a governmental mandated schedule shall be paid an additional 15% per hour.

SUPPLEMENTAL BENEFITS

Per hour:

Journeyman \$ 28.80

OVERTIME PAY

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

HOLIDAY

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

Note: Whenever a holidays falls on Sunday, it will be observed on the following Monday.

REGISTERED APPRENTICES

Wages per hour

1000 hour year terms

1st Term	\$ 21.05
2nd Term	23.15
3rd Term	28.55
4th Term	32.80
5th Term	33.16

Note: All employees working on a project that requires Hazwopper Certification will receive \$1.00 per hour over job classification rate of pay. All employees who work an irregular work day that starts after 9:00 AM on a governmental mandated schedule shall be paid an additional 15% per hour.

Supplemental Benefits per hour:

1st Term	\$ 13.10
2nd Term	17.25
3rd Term	18.00
4th Term	18.30
5th Term	29.05

8-235h

Laborer - Heavy&Highway

07/01/2019

JOB DESCRIPTION Laborer - Heavy&Highway

DISTRICT 11

ENTIRE COUNTIES

Dutchess

PARTIAL COUNTIES

Columbia: Only the Townships of Claverack, Clermont, Greenport, Philmont, Germantown,Livingston, Hillsdale, Taghkanic, Gallatin, Copake, Ancram, City of Hudson.

WAGES

ALL WORK RELATED WITH TOXIC OR ANY ASBESTOS OR HAZARDOUS MATERIAL, BIO REMEDIATION AND PHYTO REMEDIATION(Five feet or more outside of building foundation line)

WAGES:(per hour)

07/01/2019

Class 3 \$ 43.15

SHIFT DIFFERENTIAL: On all NYS D.O.T. or other Governmental mandated irregular or off shift work, an additional 15% of wage on straight time pay.

SUPPLEMENTAL BENEFITS

Per hour:

Journeyman \$ 29.00
SHIFT \$ 32.92

OVERTIME PAY

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

Employees that work on a holiday which falls on a Saturday, shall be paid two and one-half (2-1/2) times the regular hourly rate for all hours worked on that day.

HOLIDAY

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

REGISTERED APPRENTICES

Wages per hour

1000 hour terms at the following wage rates:

1st term \$ 19.77

2nd term	\$ 23.37
3rd term	\$ 26.96
4th term	\$ 30.56

Supplemental Benefits per hour:

Apprentice	\$ 23.95
Shift	\$ 27.05

11-17tox HH

Laborer - Tunnel

07/01/2019

JOB DESCRIPTION Laborer - Tunnel

DISTRICT 11

ENTIRE COUNTIES

Columbia, Dutchess, Greene, Orange, Otsego, Putnam, Rockland, Sullivan, Ulster, Westchester

PARTIAL COUNTIES

Chenango: Townships of Columbus, Sherburne and New Berlin.

Delaware: Townships of Andes, Bovina, Middletown, Roxbury, Franklin, Hamden, Stamford, Delhi, Kortright, Harpersfield, Merideth and Davenport.

WAGES

Class 1: All support laborers/sandhogs working above the shaft or tunnel.

Class 2: All laborers/sandhogs working in the shaft or tunnel.

Class 4: Safety Miners

Class 5: Site work related to Shaft/Tunnel

WAGES: (per hour)

	07/01/2019	07/01/2020	07/01/2021	07/01/2022
Class 1	\$ 49.05	\$ 50.45	\$ 51.95	\$ 53.45
Class 2	51.20	52.60	54.10	55.60
Class 4	57.60	59.00	60.50	62.00
Class 5	41.00	42.25	43.50	44.80

Toxic and hazardous waste, lead abatement and asbestos abatement work will be paid an additional \$ 3.00 an hour.

SHIFT DIFFERENTIAL...On all Government mandated irregular shift work:

- Employee shall be paid at time and one half the regular rate Monday through Friday.
- Saturday shall be paid at 1.65 times the regular rate.
- Sunday shall be paid at 2.15 times the regular rate.

SUPPLEMENTAL BENEFITS

Per hour:

Benefit 1	\$ 31.03	\$ 32.15	\$ 33.25	\$ 34.45
Benefit 2	46.48	48.15	49.80	51.60
Benefit 3	61.93	64.15	66.35	68.75

Benefit 1 applies to straight time hours, paid holidays not worked.

Benefit 2 applies to over 8 hours in a day (M-F), irregular shift work hours worked, and Saturday hours worked.

Benefit 3 applies to Sunday and Holiday hours worked.

OVERTIME PAY

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

HOLIDAY

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

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

When a recognized Holidays falls on Saturday or Sunday, holidays falling on Saturday shall be recognized or observed on Friday and holidays falling on Sunday shall be recognized or observed on Monday. Employees ordered to work on the Saturday or Sunday of the holiday or on the recognized or the observed Friday or Monday for those holidays falling on Saturday or Sunday shall receive double time the established rate and benefits for the holiday.

REGISTERED APPRENTICES

FOR APPRENTICE RATES, refer to the appropriate Laborer Heavy & Highway wage rate contained in the wage schedule for the County and location where the work is to be performed.

11-17/60/235/754Tun

Lineman Electrician

07/01/2019

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)

	07/01/2019	05/04/2020
Lineman, Technician	\$ 52.05	\$ 53.50
Crane, Crawler Backhoe	52.05	53.50
Welder, Cable Splicer	52.05	53.50
Digging Mach. Operator	46.85	48.15
Tractor Trailer Driver	44.24	45.48
Groundman, Truck Driver	41.64	42.80
Equipment Mechanic	41.64	42.80
Flagman	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	\$ 52.05	\$ 53.50
Crane, Crawler Backhoe	52.05	53.50
Cable Splicer	57.26	58.85
Certified Welder -		
Pipe Type Cable	54.65	56.18
Digging Mach. Operator	46.85	48.15
Tractor Trailer Driver	44.24	45.48
Groundman, Truck Driver	41.64	42.80
Equipment Mechanic	41.64	42.80
Flagman	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	\$ 53.37	\$ 54.82
Crane, Crawler Backhoe	53.37	54.82
Cable Splicer	58.71	60.30
Certified Welder -		
Pipe Type Cable	56.04	57.56
Digging Mach. Operator	48.03	49.34
Tractor Trailer Driver	45.36	46.60
Groundman, Truck Driver	42.70	43.86
Equipment Mechanic	42.70	43.86
Flagman	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	\$ 54.56	\$ 56.01
Crane, Crawler Backhoe	54.56	56.01
Cable Splicer	54.56	56.01
Digging Mach. Operator	49.10	50.41
Tractor Trailer Driver	46.38	47.61

Groundman, Truck Driver	43.65	44.81
Equipment Mechanic	43.65	44.81
Flagman	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	\$ 24.15 *plus 6.75% of hourly wage	\$ 24.90 *plus 6.75% of hourly wage
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*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

07/01/2019

JOB DESCRIPTION Lineman Electrician - Teledata

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, Westchester, Wyoming, Yates

WAGES

Per hour:

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

07/01/2019	01/01/2020	01/01/2021
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Cable Splicer	\$ 32.78	\$ 33.77	\$ 34.78
Installer, Repairman	\$ 31.12	\$ 32.05	\$ 33.01
Teledata Lineman	\$ 31.12	\$ 32.05	\$ 33.01
Tech., Equip. Operator	\$ 31.12	\$ 32.05	\$ 33.01
Groundman	\$ 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
	*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 **07/01/2019**

JOB DESCRIPTION Lineman Electrician - Traffic Signal, Lighting **DISTRICT 6**

ENTIRE COUNTIES
 Columbia, Dutchess, Orange, Putnam, Rockland, Ulster

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/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/truck driver may assist in installing conduit, pipe, cables and equipment.

A flagger's duties shall consist of traffic control only.
 (Ref #14.01.02)

Per hour:

	07/01/2019	05/04/2020
Lineman, Technician	\$ 46.28	\$ 47.48
Crane, Crawler Backhoe	46.28	47.48
Certified Welder	48.59	49.85
Digging Machine	41.65	42.73
Tractor Trailer Driver	39.34	40.36
Groundman, Truck Driver	37.02	37.98
Equipment Mechanic	37.02	37.98
Flagman	27.77	28.49

Above rates applicable on all Lighting and Traffic Signal Systems and 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	\$ 24.15	\$ 24.90
	*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 and Governor of NYS Election Day.
Overtime: See (5, 6, 8, 13, 25) on HOLIDAY PAGE and 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.

	07/01/2019	05/04/2020
1st term	\$ 27.77	\$ 28.49
2nd term	30.08	30.86
3rd term	32.40	33.24
4th term	34.71	35.61
5th term	37.02	37.98
6th term	39.34	40.36
7th term	41.65	42.73

SUPPLEMENTAL BENEFITS: Same as Journeyman

6-1249aReg8LT

Lineman Electrician - Tree Trimmer

07/01/2019

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.

07/01/2019

Tree Trimmer	\$ 25.79
Equipment Operator	22.81
Equipment Mechanic	22.81
Truck Driver	18.99
Groundman	15.64
Flag person	11.27

SUPPLEMENTAL BENEFITS

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

Journeyman	\$ 9.98
	*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

07/01/2019

JOB DESCRIPTION Mason - Building

DISTRICT 9

ENTIRE COUNTIES

Bronx, Dutchess, Kings, Nassau, New York, Orange, Putnam, Queens, Richmond, Rockland, Suffolk, Sullivan, Ulster, Westchester

WAGES

Wages:	07/01/2019	12/30/2019	06/29/2020
		Additional	Additional
Marble Cutters & Setters	\$ 59.44	\$0.47	\$0.95

SUPPLEMENTAL BENEFITS

Per Hour:

Journeyworker	\$ 36.73
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OVERTIME PAY

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

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6, 8, 11, 15, 16, 25) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wage Per Hour:

7500 hour terms at the following wage.

1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
1-750	751-1500	1501-2250	2251-3000	3001-3750	3751-4500	4501-5250	5251-6000	6001-6751	6751-7500
07/01/2019									
\$23.72	\$26.69	\$29.66	\$32.65	\$36.21	\$38.59	\$41.56	\$44.55	\$50.50	\$56.47

Supplemental Benefits per hour:

1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
\$21.14	\$22.44	\$23.76	\$25.04	\$26.35	\$27.65	\$28.95	\$30.24	\$32.84	\$35.43

9-7/4

Mason - Building **07/01/2019**

JOB DESCRIPTION Mason - Building

DISTRICT 11

ENTIRE COUNTIES

Dutchess, Sullivan, Ulster

PARTIAL COUNTIES

Orange: Entire county except the Township of Tuxedo.

WAGES

Per hour:

07/01/2019

Bricklayer	\$ 41.31
Cement Mason	41.31
Plasterer/Stone Mason	41.31
Pointer/Caulker	41.31

Additional \$1.00 per hour for power saw work

Additional \$0.50 per hour for swing scaffold or staging work

SHIFT WORK: When shift work or an irregular work day is mandated or required by state, federal, county, local or other governmental agency contracts, the following premiums apply:

Irregular work day requires 15% premium

Second shift an additional 15% of wage plus benefits to be paid

Third shift an additional 25% of wage plus benefits to be paid

SUPPLEMENTAL BENEFITS

Per hour:

Journeyman	\$ 34.44
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OVERTIME PAY

Cement Mason See (B, E, Q, W) on OVERTIME PAGE.

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

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

Whenever any of the above holidays fall on Sunday, they will be observed on Monday. Whenever any of the above holidays fall on Saturday, they will be observed on Friday.

REGISTERED APPRENTICES

Wages per hour:

750 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%	85%

Supplemental Benefits per hour

750 hour terms at the following percentage of journeyman supplements

1st	2nd	3rd	4th	5th	6th	7th	8th
50%	55%	60%	65%	70%	75%	80%	85%

Apprentices indentured before June 1st, 2011 receive full journeyman benefits

11-5du-b

Mason - Building **07/01/2019**

JOB DESCRIPTION Mason - Building

DISTRICT 9

ENTIRE COUNTIES

Dutchess, Orange, Putnam, Sullivan, Ulster

WAGES

Per hour:

07/01/2019

12/02/2019

06/01/2020

Building:

Tile, Marble, & Terrazzo

Additional

Additional

Mechanic/Setter \$53.56 \$0.79 \$0.79

SUPPLEMENTAL BENEFITS

Per Hour:

Journeyworker: \$ 22.06* + \$7.24

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

* This portion of benefits subject to same premium rate as shown for overtime wages.

Double time rate applies after 10 hours

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6, 11, 15, 16, 25) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wage per hour:

(Counties of Orange & Putnam)

750 hour terms at the following wage rate:

1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
1-	751-	1501-	2251-	3001-	3751-	4501-	5251-	6001-	6751-
750	1500	2250	3000	3750	4500	5250	6000	6750	7500
\$19.73	\$24.39	\$31.20	\$35.85	\$39.19	\$42.34	\$45.70	\$50.35	\$53.02	\$56.68

Supplemental Benefits per hour:

(Counties of Orange & Putnam)

1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
\$12.55*	\$12.55*	\$15.06*	\$15.06*	\$17.27*	\$16.86*	\$18.56*	\$18.56*	\$16.56*	\$21.00*
+\$0.65	+\$0.70	+\$0.79	+\$0.84	+\$1.21	+\$1.26	+\$1.61	+\$1.66	+\$5.70	+\$6.20

Wage per hour:

(Counties of Dutchess, Sullivan, Ulster)

750 hour terms at the following wage rate:

1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
1-	751-	1501-	2251-	3001-	3751-	4501-	5251-	6001-	6751-
750	1500	2250	3000	3750	4500	5250	6000	6750	7500
\$18.92	\$22.89	\$24.86	\$28.84	\$31.48	\$34.96	\$38.13	\$41.10	\$42.70	\$45.89

Supplemental Benefits per hour:

(Counties of Dutchess, Sullivan, Ulster)

1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
\$12.55*	\$12.55*	\$14.56*	\$14.56*	\$15.56*	\$16.06*	\$16.56*	\$17.56*	\$15.56*	\$20.31*
+\$0.61	+\$0.68	+\$0.72	+\$0.76	+\$1.13	+\$1.17	+\$1.51	+\$1.55	+\$5.97	+\$6.05

9-7/52B

Mason - Building

07/01/2019

JOB DESCRIPTION Mason - Building

DISTRICT 9

ENTIRE COUNTIES

Dutchess, Orange, Putnam, Sullivan, Ulster

WAGES

Per hour:	07/01/2019	12/02/2019	06/01/2020
Building Tile, Marble, & Terrazzo Finisher	\$ 44.14	Additional \$0.67	Additional \$0.67

SUPPLEMENTAL BENEFITS

Journeyworker:

Per Hour \$ 19.06* + \$7.11

OVERTIME PAY

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

*This portion of benefits subject to same premium rate as shown for overtime wages
 Double time rate applies after 10 hours on Saturdays.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
 Overtime: See (5, 6, 11, 15, 16, 25) on HOLIDAY PAGE

9-7/88B-tf

Mason - Heavy&Highway

07/01/2019

JOB DESCRIPTION Mason - Heavy&Highway

DISTRICT 11

ENTIRE COUNTIES

Dutchess, Sullivan, Ulster

PARTIAL COUNTIES

Orange: Entire county except the Township of Tuxedo.

WAGES

Per hour: 07/01/2019

Bricklayer	\$ 41.82
Cement Mason	41.82
Marble/Stone Mason	41.82
Plasterer	41.82
Pointer/Caulker	41.82

Additional \$1.00 per hour for power saw work
 Additional \$0.50 per hour for swing scaffold or staging work

SHIFT WORK: When shift work or an irregular work day is mandated or required by state, federal, county, local or other governmental contracts, the following rates apply:

- Irregular work day requires 15% premium
- Second shift an additional 15% of wage plus benefits to be paid
- Third shift an additional 25% of wage plus benefits to be paid

SUPPLEMENTAL BENEFITS

Per hour:
 Journeyman \$ 34.43

OVERTIME PAY

Cement Mason See (B, E, Q, W, X)
 All Others See (B, E, Q, X)

HOLIDAY

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

Whenever any of the above holidays fall on Sunday, they will be observed on Monday. Whenever any of the above holidays fall on Saturday, they will be observed on Friday.

REGISTERED APPRENTICES

Wages per hour:

750 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%	85%

Supplemental Benefits per hour

750 hour terms at the following percentage of journeyman supplements

1st	2nd	3rd	4th	5th	6th	7th	8th
50%	55%	60%	65%	70%	75%	80%	85%

Apprentices indentured before June 1st, 2011 receive full journeyman benefits

11-5du-H/H

Operating Engineer - Building

07/01/2019

JOB DESCRIPTION Operating Engineer - Building

DISTRICT 9

ENTIRE COUNTIES

Bronx, Kings, New York, Putnam, Queens, Richmond, Westchester

PARTIAL COUNTIES

Dutchess: that part of Dutchess County lying south of the North City Line of the City of Poughkeepsie.

WAGES

NOTE:Construction surveying

Party chief--One who directs a survey party

Instrument Man--One who runs the instrument and assists Party Chief.

Rodman--One who holds the rod and assists the Survey Crew

Wages:(Per Hour) 07/01/2019

Building Construction:

Party Chief	\$ 74.75
Instrument Man	\$ 59.53
Rodman	\$ 40.79

Steel Erection:

Party Chief	\$ 75.46
Instrument Man	\$ 60.19
Rodman	\$ 42.35

Heavy Construction-NYC counties only:
 (Foundation, Excavation.)

Party Chief	\$ 80.74
Instrument man	\$ 61.03
Rodman	\$ 52.26

SUPPLEMENTAL BENEFITS

Per Hour: 07/01/2019

Building Construction & Steel \$22.85* + 6.90

Heavy Construction \$23.10* + 6.90

* This portion subject to same premium as wages

OVERTIME PAY

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

Code "A" applies to Building Construction and has double the rate after 7 hours on Saturdays.

Code "B" applies to Heavy Construction and Steel Erection and had double the rate after 8 hours on Saturdays.

HOLIDAY

Paid: See (5, 6, 9, 11, 15, 16, 25) on HOLIDAY PAGE

Overtime: See (5, 6, 9, 11, 15, 16, 25) on HOLIDAY PAGE

9-15Db

Operating Engineer - Building

07/01/2019

JOB DESCRIPTION Operating Engineer - Building

DISTRICT 8

ENTIRE COUNTIES

Putnam, Westchester

PARTIAL COUNTIES

Dutchess: All the counties of Westchester and Putnam and the southern part of Dutchess County defined by the northern boundary line of the City of Poughkeepsie, then due east to Route 115, then north along Route 115 to Bedell Road, then east along Bedell Road to Van Wagner Road, then north along Van Wagner Road to Bower Road, then east along Bower Road to Route 44 and along Route 44 east to Route 343, then along Route 343 east to the northern boundary of Town of Dover Plains and east along the northern boundary of Town of Dover Plains to the border line of the State of Connecticut and bordered on the west by the middle of the Hudson River.

WAGES

GROUP I:

Cranes (All Types up to 49 tons), Boom Trucks, Cherry Pickers (All Types), Clamshell Crane, Derrick (Stone and Steel), Dragline, Franki Pile Rig or similar, High Lift (Lull or similar) with crane attachment and winch used for hoisting or lifting, Hydraulic Cranes, Pile Drivers, Potain and similar.

Cranes (All types 50-99 tons), Drill Rig Casa Grande (CAT or similar), Franki Pile Rig or similar, Hydraulic Cranes (All types including Crawler Cranes- No specific boom length).

Cranes (All types 100 tons and over), All Tower Cranes, All Climbing Cranes irrespective of manufacturer and regardless of how the same is rigged, Franki Pile Rig or similar, Conventional Cranes (All types including Crawler Cranes-No specific boom length), Hydraulic Cranes.

GROUP I-A: Barber Green Loader-Euclid Loader, Bulldozer, Carrier-Trailer Horse, Concrete Cleaning Decontamination Machine Operator, Concrete-Portable Hoist, Conway or Similar Mucking Machines, Elevator & Cage, Excavators all types, Front End Loaders, Gradall, Shovel, Backhoe, etc. (Crawler or Truck), Heavy Equipment Robotics Operator/Mechanic, Hoist Engineer-Material, Hoist Portable Mobile Unit, Hoist (Single, Double or Triple Drum), Horizontal Directional Drill Locator, Horizontal Directional Drill Operator and Jersey Spreader, Letourneau or Tournapull (Scrapers over 20 yards Struck), Lift Slab Console, etc., Lull HiLift or Similar, Master Environmental Maintenance Mechanics, Mucking Machines Operator/Mechanic or Similar Type, Overhead Crane, Pavement Breaker (Air Ram), Paver (Concrete), Post Hole Digger, Power House Plant, Road Boring Machine, Road Mix Machine, Ross Carrier and Similar Machines, Rubber tire double end backhoes and similar machines, Scoopmobile Tractor-Shovel Over 1.5 yards, Shovel (Tunnels), Spreader (Asphalt) Telephie (Cableway), Tractor Type Demolition Equipment, Trenching Machines-Vermeer Concrete Saw Trencher and Similar, Ultra High Pressure Waterjet Cutting Tool System, Vacuum Blasting Machine operator/mechanic, Winch Truck A Frame.

GROUP I-B: Compressor (Steel Erection), Mechanic (Outside All Types), Negative Air Machine (Asbestos Removal), Push Button (Buzz Box) Elevator.

GROUP II: Compactor Self-Propelled, Concrete Pump, Crane Operator in Training (Over 100 Tons), Grader, Machines Pulling Sheep's Foot Roller, Roller (4 ton and over), Scrapers (20 yards Struck and Under), Vibratory Rollers, Welder.

GROUP III-A: Asphalt Plant, Concrete Mixing Plants, Forklift (All power sources), Joy Drill or similar, Tractor Drilling Machine, Loader (1 1/2 yards and under), Portable Asphalt Plant, Portable Batch Plant, Portable Crusher, Skid Steer (Bobcat or similar), Stone Crusher, Well Drilling Machine, Well Point System.

GROUP III-B: Compressor Over 125 cu. Feet, Conveyor Belt Machine regardless of size, Compressor Plant, Ladder Hoist, Stud Machine.

GROUP IV-A: Batch Plant, Concrete Breaker, Concrete Spreader, Curb Cutter Machine, Finishing Machine-Concrete, Fine Grading Machine, Hepa Vac Clean Air Machine, Material Hopper (sand, stone, cement), Mulching Grass Spreader, Pump Gypsum etc, Pump-Plaster-Grout-Fireproofing. Roller (Under 4 Ton), Spreading and Fine Grading Machine, Steel Cutting Machine, Siphon Pump, Tar Joint Machine, Television Cameras for Water, Sewer, Gas etc. Turbo Jet Burner or Similar Equipment, Vibrator (1 to 5).

GROUP IV-B: Compressor (all types), Heater (All Types), Fire Watchman, Lighting Unit (Portable & Generator) Pump, Pump Station (Water, Sewer, Portable, Temporary), Welding Machine (Steel Erection & Excavation).

GROUP V: Mechanics Helper, Motorized Roller (walk behind), Stock Attendant, Welder's Helper.

GROUP VI-B: Utility Man, Warehouse Man.

WAGES: (per hour)

07/01/2019

GROUP I	
Cranes- up to 49 tons	\$ 61.70
Cranes- 50 tons to 99 tons	63.86
Cranes- 100 tons and over	72.99
GROUP I-A	53.95
GROUP I-B	49.68
GROUP II	52.03
GROUP III-A	50.11
GROUP III-B	47.67
GROUP IV-A	49.60
GROUP IV-B	41.85
GROUP V	45.17
GROUP VI-A	52.96
GROUP VI-B	

Utility Man	42.83
Warehouse Man	44.92

An additional 20% to wage when required to wear protective equipment on hazardous/toxic waste projects.
 Engineers operating cranes with booms 100 feet but less than 149 feet in length will be paid an additional \$2.00 per hour.
 Engineers operating cranes with booms 149 feet or over in length will be paid an additional \$3.00 per hour.
 Loader operators over 5 cubic yard capacity additional .50 per hour.
 Shovel operators over 4 cubic yard capacity additional \$1.00 per hour.

SUPPLEMENTAL BENEFITS

Per hour:
 07/01/2019
 Journeyworker \$ 28.52

OVERTIME PAY

OVERTIME:..... See (B, E,P,R*,T**,U***,V) on OVERTIME PAGE.

HOLIDAY

Paid:..... See (5, 6, 11, 12, 15, 25) on HOLIDAY PAGE.
 Overtime:..... See (5, 6, 11, 12, 15, 25) on HOLIDAY PAGE.
 * For Holiday codes 11, 12, 15, 25, code R applies.
 ** For Holiday code 28, code T applies
 *** For Holiday codes 5 & 6, code U applies

8-137B

Operating Engineer - Building

07/01/2019

JOB DESCRIPTION Operating Engineer - Building

DISTRICT 1

ENTIRE COUNTIES

Albany, Clinton, Columbia, Essex, Franklin, Fulton, Greene, Hamilton, Herkimer, Montgomery, Otsego, Rensselaer, Saratoga, Schenectady, Schoharie, Warren, Washington

PARTIAL COUNTIES

Dutchess: Defined as north of the northern boundary line of City of Poughkeepsie then due east to Route 115 to Bedelt Road then east along Bedelt Road to VanWagner Road then north along VanWagner Road to Bower Road then east along Bower Road to Rte. 44 east to Route 343 then along Route 343 east to the northern boundary of Town of Dover Plains and east along the northern boundary of Town of Dover Plains to Connecticut.

WAGES

CLASS A1:

Crane, hydraulic cranes, tower crane, locomotive crane, piledriver, cableway, derricks,whirlies, dragline, boom trucks over 5 tons.

CLASS A:

Shovel, all Excavators (including rubber tire full swing), Gradalls, power road grader, all CMI equipment, front-end rubber tire loader, tractor-mounted drill (quarry master), mucking machine, concrete central mix plant, concrete pump, belcrete system, automated asphalt concrete plant, and tractor road paver, boom trucks 5 tons and under, maintenance engineer, self-contained crawler drill-hydraulic rock drill.

CLASS B:

Backhoes (rubber tired backhoe/loader combination), bulldozer, pushcat, tractor, traxcavator, scraper, LeTourneau grader, form fine grader, self-propelled soil compactor (fill roller), asphalt roller, blacktop spreader, power brooms, sweepers, trenching machine, Barber Green loader, side booms, hydro hammer, concrete spreader, concrete finishing machine, one drum hoist, power hoisting (single drum), hoist two drum or more, three drum engine, power hoisting (two drum and over), two drum and swinging engine, three drum swinging engine, hod hoist, A-L frame winches, core and well drillers (one drum), post hole digger, model CHB Vibro-Tamp or similar machine, batch bin and plant operator, dinky locomotive, skid steer loader, track excavator 5/8 cubic yard or smaller, front end rubber tired loader under four cubic yards, vacuum machine (mounted or towed).

CLASS C:

Fork lift, high lift, all terrain fork lift: or similar, oiler, fireman and heavy-duty greaser, boilers and steam generators, pump, vibrator, motor mixer, air compressor, dust collector, welding machine, well point, mechanical heater, generators, temporary light plants, electric submersible pumps 4" and over, murphy type diesel generator, conveyor, elevators, concrete mixer, belcrete power pack (belcrete system), seeding, and mulching machines, pumps.

* In the event that equipment listed above is operated by robotic control, the classification covering the operation will be the same as if manually operated.

WAGES per hour

	07/01/2019	07/01/2020	07/01/2021
Class # A1	\$ 44.68	45.67	46.71
Class # A	44.19	45.18	46.22
Class # B	43.17	44.16	45.20
Class # C	40.27	41.26	42.30

Additional \$0.50 per hr for Tower Cranes.
 Additional \$1.25 per hr for Cranes with Boom length & jib 150ft. and over.
 Additional \$2.25 per hr for Cranes with Boom length & jib 200ft. and over.
 Additional \$2.50 per hr over B rate for Nuclear Leader work.
 Additional \$0.40 per hr for tunnel or excavation of shaft 40' or more deep.
 Additional \$2.50 per hour if work requires Personal Protective Equipment for hazardous waste site activities with a level C or over rating.

SUPPLEMENTAL BENEFITS

Per hour	07/01/2019	07/01/2020	07/01/2021
Journeyman	\$ 27.10	28.25	29.40

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

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

Note: If a holiday falls on Sunday, it will be celebrated on Monday. If the holiday falls on Saturday, it will be celebrated on Friday. Employees who work a Saturday holiday shall be paid double time plus 8 hours of straight time.

REGISTERED APPRENTICES

Wages per hour

1000 hours terms at the following percentage of Journeyman's wage Class B

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

Supplemental Benefits per hour worked

	07/01/2019	07/01/2020	07/01/2021
All terms	\$ 22.40	28.25	29.40

1-158 Alb

Operating Engineer - Heavy&Highway

07/01/2019

JOB DESCRIPTION Operating Engineer - Heavy&Highway

DISTRICT 8

ENTIRE COUNTIES

Putnam, Westchester

PARTIAL COUNTIES

Dutchess: All the counties of Westchester and Putnam and the southern part of Dutchess County defined by the northern boundary line of the City of Poughkeepsie, then due east to Route 115, then north along Route 115 to Bedell Road, then east along Bedell Road to Van Wagner Road, then north along Van Wagner Road to Bower Road, then east along Bower Road to Route 44 and along Route 44 east to Route 343, then along Route 343 east to the northern boundary of Town of Dover Plains and east along the northern boundary of Town of Dover Plains to the border line of the State of Connecticut and bordered on the west by the middle of the Hudson River.

WAGES

GROUP I: Boom Truck, Cherry Picker, Clamshell, Crane, (Crawler, Truck), Dragline, Drill Rig (Casa Grande, Cat, or Similar), Floating Crane (Crane on Barges) under 100 tons, Gin Pole, Hoist Engineer-Concrete (Crane-Derrick-Mine Hoist), Knuckle Boom Crane, Rough Terrain Crane.

GROUP I-A: Auger (Truck or Truck Mounted), Boat Captain, Bulldozer-All Sizes, Central Mix Plant Operator, Chipper (all types), Close Circuit T.V., Combination Loader/Backhoe, Compactor with Blade, Concrete Finishing Machine, Gradall, Grader (Motor Grader), Elevator & Cage (Materials or Passenger), Excavator (and all attachments), Front End Loaders (1 1/2 yards and over), High Lift Lull and similar, Hoist (Single, Double, Triple Drum), Hoist Portable Mobile Unit, Hoist Engineer (Material), Jack and Bore Machine, Log Skidders, Mill Machines, Mucking Machines, Overhead Crane, Paver (concrete), Post Pounder (of any type), Push Cats, Road Reclaimer, Robot Hammer (Brokk or similar), Robotic Equipment (Scope of Engineer Schedule), Ross Carrier and similar, Scrapers (20 yard struck and over), Side Boom, Slip Form Machine, Spreader (Asphalt), Trenching Machines (Telephies-Vermeer Concrete Saw), Tractor Type Demolition Equipment, Vacuum Truck.

GROUP I-B: Asphalt Mobile Conveyor/Transfer Machine, Road Paver (Asphalt).

GROUP II-A: Ballast Regulators, Compactor Self Propelled, Fusion Machine, Rail Anchor Machines, Roller (4 ton and over), Scrapers (20 yard struck and under), Vibratory Roller (Riding), Welder.

GROUP II-B: Mechanic (Outside) All Types.

GROUP III: Air Tractor Drill, Asphalt Plant, Batch Plant, Boiler (High Pressure), Concrete Breaker (Track or Rubber Tire), Concrete Pump, Concrete Spreader, Excavator Drill, Farm Tractor, Forklift (all types), Gas Tapping (Live), Hydroseeder, Loader (1 1/2 yards and under), Locomotive (all sizes), Machine Pulling Sheeps Foot Roller, Portable Asphalt Plant, Portable Batch Plant, Portable Crusher (Apprentice), Powerhouse Plant, Roller (under 4 ton), Sheer Excavator, Skid Steer/Bobcat, Stone Crusher, Sweeper (with seat), Well Drilling Machine.

GROUP IV: Service Person (Grease Truck).

GROUP IV-B: Conveyor Belt Machine (Truck Mounted), Heater (all types), Lighting Unit (Portable), Maintenance Engineer (For Crane Only), Mechanics Helper, Pump (Fireproofing), Pumps-Pump Station/Water/Sewer/Gypsum/Plaster, etc., Pump Truck (Sewer Jet or Similar), Welders Helper, Welding Machine (Steel Erection), Well Point System.

GROUP V: All Tower Cranes-All Climbing Cranes and all cranes of 100-ton capacity or greater (3900 Manitowac or similar) irrespective of manufacturer and regardless of how the same is rigged, Hoist Engineer (Steel), Engineer-Pile Driver, Jersey Spreader, Pavement Breaker/Post Hole Digger.

WAGES: Per hour:	07/01/2019	03/02/2020
Group I	\$ 61.03	\$ 62.38
Group I-A	53.80	54.95
Group I-B	56.69	57.92
Group II-A	51.52	52.61
Group II-B	53.13	54.26
Group III	50.61	51.68
Group IV-A	46.00	46.93
Group IV-B	39.49	40.24
Group V-A		
Engineer All Tower, Climbing and Cranes of 100 Tons	69.14	70.72
Hoist Engineer(Steel)	62.61	64.00
Engineer(Pile Driver)	66.77	68.27
Jersey Spreader,Pavement Breaker (Air Ram)Post Hole Digger	52.71	53.83

SHIFT DIFFERENTIAL:

A 15% premium on all hours paid, including overtime hours for 2nd, 3rd shifts on all government mandated off-shift work

Engineers operating cranes with booms 100 feet but less than 149 feet in length will be paid an additional \$2.00 per hour over the rate listed in the Wage Schedule. Engineers operating cranes with booms 149 feet or over in length will be paid an additional \$3.00 per hour over the rate listed in the Wage Schedule. Loader and Excavator Operators: over 5 cubic yards capacity \$0.50 per hour over the rate listed in the Wage Schedule. Shovel Operators: over 4 cubic yards capacity \$1.00 per hour over the rate listed in the Wage Schedule.

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 scheduleRegistration 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:

Journeyworker:	07/01/2019	03/02/2020
	\$ 21.55 on all hours.	\$ 22.50 on all hours.
	PLUS \$ 8.00 for first 40 hours worked.	PLUS \$ 8.00 for first 40 hours worked.

OVERTIME PAY

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

HOLIDAY

Paid:..... See (5, 6, 8, 9, 15, 25) on HOLIDAY PAGE

Overtime..... See (5, 6, 8, 9, 15, 25) on OVERTIME PAGE

* For Holiday codes 8,9,15,25 code R applies

** For Holiday Codes 5 & 6 code U applies

Note: If employees are required to work on Easter Sunday they shall be paid at the rate of triple time.

REGISTERED APPRENTICES

(1)year terms at the following rate.

	07/01/2019	03/02/2020
1st term	\$ 26.90	\$ 27.48
2nd term	32.28	32.97
3rd term	37.66	38.47
4th term	43.04	43.96

Supplemental Benefits per hour:

Apprentices:	07/01/2019	03/02/2020
	\$ 21.55	\$ 22.50

8-137HH

Operating Engineer - Heavy&Highway

07/01/2019

JOB DESCRIPTION Operating Engineer - Heavy&Highway

DISTRICT 1

ENTIRE COUNTIES

Albany, Broome, Chenango, Clinton, Columbia, Essex, Franklin, Fulton, Greene, Hamilton, Herkimer, Montgomery, Otsego, Rensselaer, Saratoga, Schenectady, Schoharie, Tioga, Warren, Washington

PARTIAL COUNTIES

Dutchess: Defined as north of the northern boundary line of City of Poughkeepsie then due east to Route 115 to Bedelt Road then east along Bedelt Road to VanWagner Road then north along VanWagner Road to Bower Road then east along Bower Road to Rte. 44 east to Route 343 then along Route 343 east to the northern boundary of Town of Dover Plains and east along the northern boundary of Town of Dover Plains to Connecticut.

WAGES

CLASSIFICATION A:

Asphalt Curb Machine (Self Propelled, Slipform), Asphalt Paver, Automated Concrete Spreader (CMI Type), Automatic Fine Grader, Backhoe (Except Tractor Mounted, Rubber Tired), Backhoe Excavator Full Swing (CAT 212 or similar type), Back Filling Machine, Belt Placer (CMI Type), Blacktop Plant (Automated), Boom truck, GPS operated Bull Dozer, Cableway, Caisson Auger, Central Mix Concrete Plant (Automated), Concrete Curb Machine (Self Propelled, Slipform), Concrete Pump, Crane, Cherry Picker, Derricks (steel erection), Dragline, Overhead Crane (Gantry or Straddle type), Pile Driver, Truck Crane, Directional Drilling Machine, Dredge, Dual Drum Paver, Excavator (All PurposeHydraulically Operated) (Gradall or Similar), Front End Loader (4 cu. yd. and Over), Head Tower (Sauerman or Equal), Hoist (Two or Three Drum), Holland Loader, Maintenance Engineer, Mine Hoist, Mucking Machine or Mole, Pavement Breaker(SP) Wertgen; PB-4 and similar type, Power Grader, Profiler (over 105 H.P.), Quad 9, Quarry Master (or equivalent), Scraper, Shovel, Side Boom, Slip Form Paver (If a second man is needed, he shall be an Oiler), Tractor Drawn BeltType Loader, Truck or Trailer Mounted Log Chipper (Self Feeder), Tug Operator (Manned Rented Equipment Excluded), Tunnel Shovel

CLASSIFICATION B:

Backhoe (Tractor Mounted, Rubber Tired), Bituminous Recycler Machine, Bituminous Spreader and Mixer, Blacktop Plant (NonAutomated), Blast or Rotary Drill (Truck or Tractor Mounted), Brokk, Boring Machine, Cage Hoist, Central Mix Plant [(NonAutomated) and All Concrete Batching Plants], Concrete Paver (Over 16S), Crawler Drill (Self-contained), Crusher, Diesel Power Unit, Drill Rigs, Tractor Mounted, Front End Loader (Under 4 cu. yd.), Greaseman/Lubrication Engineer, HiPressure Boiler (15 lbs. and over), Hoist (One Drum), Hydro-Axe, Kolman Plant Loader and Similar Type Loaders (If Employer requires another man to clean the screen or to maintain the equipment, he shall be an Oiler), L.C.M. Work Boat Operator, Locomotive, Material handling knuckle boom, Mini Excavator (under 18,000 lbs.), Mixer (for stabilized base selfpropelled), Monorail Machine, Plant Engineer, Prentice Loader, Profiler (105 H.P. and under), Pug Mill, Pump Crete, Ready Mix Concrete Plant, Refrigeration Equipment (for soil stabilization), Road Widener, Roller (all above subgrade), Sea Mule, Self-contained Ride-on Rock Drill(Excluding Air-Track Type Drill), Skidder, Tractor with Dozer and/or Pusher, Trencher, Tugger Hoist, Vacuum machine (mounted or towed), Vermeer saw (ride on, any size or type), Welder

CLASSIFICATION C:

A Frame Winch Hoist on Truck, Articulated Heavy Hauler, Aggregate Plant, Asphalt or Concrete Grooving Machine (ride on), Ballast Regulator(Ride-on), Boiler (used in conjunction with production), Bituminous Heater (self-propelled), Boat (powered), Cement and Bin Operator, Concrete Pavement Spreader and Finisher Concrete Paver or Mixer (16' and under), Concrete Saw (self-propelled), Conveyor, Deck Hand, Directional Drill Machine Locator, Drill (Core and Well), Farm Tractor with accessories, Fine Grade Machine, Fireman, Fork Lift, Form Tamper, Grout Pump, Gunit Machine, Hammers (Hydraulic self-propelled), Hydra-Spiker (ride-on), Hydraulic Pump (jacking system), Hydro-Blaster (Water), Mulching Machine, Oiler, Parapet Concrete or Pavement Grinder, Post Hole Digger and Post Driver, Power Broom (towed), Power Heaterman, Power Sweeper, Revinus Widener, Roller (Grade and Fill), Scarifier (ride-on), Shell Winder, Skid steer loader (Bobcat or similar), Span-Saw (ride-on), Steam Cleaner, Tamper (ride-on), Tie Extractor (ride-on), Tie Handler (ride-on), Tie Inserter (ride-on), Tie Spacer (ride-on), Tire Repair, Track Liner (ride-on), Tractor, Tractor (with towed accessories), Vibratory Compactor, Vibro Tamp, Well Point, and the following hands-off equipment: Compressors, Dust Collectors, Generators, Pumps, Welding Machines, Light Plants and Heaters

- Note for all above classifications of Operating Engineer - In the event that equipment listed above is operated by robotic control, the classification covering the operation will be the same as if manually operated.

WAGES per hour

	07/01/2019	07/01/2020 Additional	07/01/2021 Additional
Master Mechanic	\$ 46.43	\$ 2.60	\$ 2.70
Class A*	44.82		
Class B	43.91		
Class C	41.34		

Additional \$2.50 per hour for All Employees who work a single irregular work shift starting from 5:00 PM to 1:00 AM that is mandated by the Contracting Agency.
 Additional \$2.50 per hr. for hazardous waste removal work on State and/or Federally designated waste site which require employees to wear Level C or above forms of personal protection.

(* Premiums for CRANES is based upon Class A rates with the following premiums:

- Additional \$4.00 per hr for Tower Cranes, including self erecting.
- Additional \$3.00 per hr for Lattice Boom Cranes and all other cranes with a manufacturers rating of fifty (50) tons and over.
- Additional \$2.00 per hr for all Hydraulic Cranes and Derricks with a manufacturer's rating of 49 ton and below, including boom trucks.

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 \$ 27.30

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 6) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

Note: If the holiday falls on Sunday, it will be celebrated on Monday. If the holiday falls on a Saturday, it will be celebrated on Saturday.

REGISTERED APPRENTICES

Wages per hour

1000 hours terms at the following percentage of Journeyman's wage Class B

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

Supplemental Benefits per hour worked

All Terms 07/01/2019
 \$ 22.70

1-158H/H Alb

Operating Engineer - Heavy&Highway

07/01/2019

JOB DESCRIPTION Operating Engineer - Heavy&Highway

DISTRICT 9

ENTIRE COUNTIES

Putnam, Westchester

PARTIAL COUNTIES

Dutchess: South of the North city line of Poughkeepsie

WAGES

Party Chief - One who directs a survey party

Instrument Man - One who runs the instrument and assists Party Chief

Rodman - One who holds the rod and in general, assists the Survey Crew

Categories cover GPS & Underground Surveying

Per Hour: 07/01/2019

Party Chief \$ 78.00

Instrument Man 58.81
Rodman 50.26

SUPPLEMENTAL BENEFITS

Per Hour: 07/01/2019

All Categories
Straight Time: \$ 23.10* plus \$6.90

Premium:
Time & 1/2 \$ 34.65* plus \$6.90

Double Time \$ 46.20* plus \$6.90

OVERTIME PAY

See (B, *E, Q) on OVERTIME PAGE
* Doubletime paid on all hours in excess of 8 hours on Saturday

HOLIDAY

Paid: See (5, 6, 7, 11, 12) on HOLIDAY PAGE
Overtime: See (5, 6, 7, 11, 12) on HOLIDAY PAGE

9-15Dh

Operating Engineer - Heavy&Highway - Tunnel

07/01/2019

JOB DESCRIPTION Operating Engineer - Heavy&Highway - Tunnel

DISTRICT 8

ENTIRE COUNTIES

Putnam, Westchester

PARTIAL COUNTIES

Dutchess: All the counties of Westchester and Putnam and the southern part of Dutchess County defined by the northern boundary line of the City of Poughkeepsie, then due east to Route 115, then north along Route 115 to Bedell Road, then east along Bedell Road to Van Wagner Road, then north along Van Wagner Road to Bower Road, then east along Bower Road to Route 44 and along Route 44 east to Route 343, then along Route 343 east to the northern boundary of Town of Dover Plains and east along the northern boundary of Town of Dover Plains to the border line of the State of Connecticut and bordered on the west by the middle of the Hudson River.

WAGES

GROUP I: Boom Truck, Cherry Picker, Clamshell, Crane(Crawler,Truck), Dragline, Drill Rig Casa Grande(Cat or Similar), Floating Crane(Crane on Barge-Under 100 Tons), Hoist Engineer(Concrete/Crane-Derrick-Mine Hoist), Knuckle Boom Crane, Rough Terrain Crane.

GROUP I-A: Auger(Truck or Truck Mounted), Boat Captain, Bull Dozer-all sizes, Central Mix Plant Operator, Chipper-all types, Close Circuit T.V., Combination Loader/Backhoe, Compactor with Blade, Concrete Finishing Machine, Gradall, Grader(Motor Grader), Elevator & Cage(Materials or Passengers), Excavator(and all attachments), Front End Loaders(1 1/2 yards and over), High Lift Lull, Hoist(Single, Double, Triple Drum), Hoist Portable Mobile Unit, Hoist Engineer(Material), Jack and Bore Machine, Log Skidder, Milling Machine, Moveable Concrete Barrier Transfer & Transport Vehicle, Mucking Machines. Overhead Crane, Paver(Concrete), Post Pounder of any type, Push Cats, Road Reclaimer, Robot Hammer(Brokk or similar), Robotic Equipment(Scope of Engineer Schedule), Ross Carrier and similar machines, Scrapers(20 yards struck and over), Side Boom, Slip Form Machine, Spreader(Asphalt), Trenching Machines, Telephies-Vermeer Concrete Saw, Tractor type demolition equipment, Vacuum Truck.

GROUP I-B: Asphalt Mobile Conveyor/Transfer Machine, Road Paver(Asphalt).

GROUP II-A: Ballast Regulators, Compactor(Self-propelled), Fusion Machine, Rail Anchor Machines, Roller(4 ton and over), Scrapers(20 yard struck and under), Vibratory Roller(riding), Welder.

GROUP II-B: Mechanic(outside)all types.

GROUP III: Air Tractor Drill, Asphalt Plant, Batch Plant, Boiler(High Pressure), Concrete Breaker(Track or Rubber Tire), Concrete Pump, Concrete Spreader, Excavator Drill, Farm Tractor, Forklift(all types of power), Gas Tapping(Live), Hydroseeder, Loader(1 1/2 yards and under), Locomotive(all sizes), Machine Pulling Sheeps Foot Roller, Portable Asphalt Plant, Portable Batch Plant, Portable Crusher(Apprentice), Powerhouse Plant, Roller(under 4 ton), Sheer Excavator, Skidsteer/Bobcat, Stone Crusher, Sweeper(with seat), Well Drilling Machine.

GROUP IV-A: Service Person(Grease Truck).

GROUP IV-B: Conveyor Belt Machine(Truck Mounted), Heater(all types), Lighting Unit(Portable), Maintenance Engineer(for Crane only), Mechanics Helper, Pump(Fireproofing), Pumps-Pump Station/Water/Sewer/Gypsum/Plaster, etc., Pump Truck(Sewer Jet or similar), Welding Machine(Steel Erection), Welders Helper.

GROUP V-A: Engineer(all Tower Cranes, all Climbing Cranes & all Cranes of 100 ton capacity or greater),Hoist Engineer(Steel-Sub Structure), Engineer-Pile Driver, Jersey-Spreader, Pavement breaker, Post Hole Digger

WAGES: (per hour)

	07/01/2019	03/02/2020
GROUP I	\$ 61.03	\$ 62.38
GROUP I-A	53.80	54.95
GROUP I-B	56.69	57.92
GROUP II-A	51.52	52.61
GROUP II-B	53.13	54.26
GROUP III	50.61	51.68
GROUP IV-A	46.00	46.93
GROUP IV-B	39.49	40.24
GROUP V-A		
Engineer-Cranes	69.14	70.72
Engineer-Pile Driver	66.77	68.27
Hoist Engineer	62.61	64.00
Jersey Spreader	52.71	53.83
Pavement Breaker	52.71	53.83
Post Hole Digger	52.71	53.83

SHIFT DIFFERENTIAL:

A 15% premium on all hours paid, including overtime hours for 2nd, 3rd shifts on all government mandated off-shift work

An additional 20% to wage when required to wear protective equipment on hazardous/toxic waste projects. Operators required to use two buckets pouring concrete on other than road pavement shall receive \$0.50 per hour over scale. Engineers operating cranes with booms 100 feet but less than 149 feet in length will be paid an additional \$2.00 per hour. Engineers operating cranes with booms 149 feet or over in length will be paid an additional \$3.00 per hour. Operators of shovels with a capacity over (4) cubic yards shall be paid an additional \$1.00 per hour. Operators of loaders with a capacity over (5) cubic yards shall be paid an additional \$0.50 per hour.

SUPPLEMENTAL BENEFITS

Per hour:

Journeyworker:

	03/04/2019	03/02/2020
	\$ 21.55	\$ 22.50
	+ \$8.00	+ \$8.00
	(Limited to first 40 hours)	(Limited to first 40 hours)

OVERTIME PAY

See (D, O, *U, V) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 6, 8, 9, 15, 25) on HOLIDAY PAGE

Overtime: See (5, 6, 8, 9, 15, 25) on HOLIDAY PAGE

* Note: For Holiday codes 5 & 6, code U applies.

Note: If employees are required to work on Easter Sunday, they shall be paid at the rate of triple time.

REGISTERED APPRENTICES

(1)year terms at the following rates:

	07/01/2019	03/02/2020
1st term	\$ 26.90	\$ 27.48
2nd term	32.28	32.97
3rd term	37.66	38.47
4th term	43.04	43.96

Supplemental Benefits per hour:

	07/01/2019	03/02/2020
All terms	\$ 21.55	\$ 22.50

8-137Tun

Operating Engineer - Marine Dredging

07/01/2019

JOB DESCRIPTION Operating Engineer - Marine Dredging

DISTRICT 4

ENTIRE COUNTIES

Albany, Bronx, Cayuga, Chautauqua, Clinton, Columbia, Dutchess, Erie, Essex, Franklin, Greene, Jefferson, Kings, Monroe, Nassau, New York, Niagara, Orange, Orleans, Oswego, Putnam, Queens, Rensselaer, Richmond, Rockland, St. Lawrence, Suffolk, Ulster, Washington, Wayne, Westchester

WAGES

These wages do not apply to Operating Engineers on land based construction projects. For those projects, please see the Operating Engineer Heavy/Highway Rates. The wage rates below for all equipment and operators are only for marine dredging work in navigable waters found in the counties listed above.

Per Hour:	07/01/2019	10/01/2019
CLASS A1 Deck Captain, Leverman Mechanical Dredge Operator Licensed Tug Operator 1000HP or more.	\$ 39.23	\$ 40.31
CLASS A2 Crane Operator (360 swing)	34.96	35.92
CLASS B Dozer, Front Loader Operator on Land	To conform to Operating Engineer Prevailing Wage in locality where work is being performed including benefits.	
CLASS B1 Derrick Operator (180 swing) Spider/Spill Barge Operator Operator II, Fill Placer, Engineer, Chief Mate, Electrician, Chief Welder, Maintenance Engineer Licensed Boat, Crew Boat Operator	33.93	34.86
CLASS B2 Certified Welder	31.94	32.82
CLASS C1 Drag Barge Operator, Steward, Mate, Assistant Fill Placer	31.07	31.92
CLASS C2 Boat Operator	30.06	30.89
CLASS D Shoreman, Deckhand, Oiler, Rodman, Scowman, Cook, Messman, Porter/Janitor	24.97	25.66

SUPPLEMENTAL BENEFITS

Per Hour:
 THE FOLLOWING SUPPLEMENTAL BENEFITS APPLY TO ALL CATEGORIES

	07/01/2019	10/01/2019
All Classes A & B	\$11.23 plus 7.5% of straight time wage, Overtime hours add \$ 0.63	\$11.88 plus 7.5% of straight time wage, Overtime hours add \$ 0.63
All Class C	\$10.93 plus 7.5% of straight time wage, Overtime hours add \$ 0.48	11.58 plus 7.5% of straight time wage, Overtime hours add \$ 0.48
All Class D	\$10.63 plus 7.5% of straight time wage, Overtime hours add \$ 0.33	11.28 plus 7.5% of straight time wage, Overtime hours add \$ 0.33

OVERTIME PAY

See (B2, F, R) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6, 8, 15, 26) on HOLIDAY PAGE

4-25a-MarDredge

Operating Engineer - Survey Crew

07/01/2019

JOB DESCRIPTION Operating Engineer - Survey Crew

DISTRICT 12

ENTIRE COUNTIES

Albany, Allegany, Broome, Cayuga, Chemung, Chenango, Clinton, Columbia, Cortland, Essex, Franklin, Fulton, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Niagara, Oneida, Onondaga, Ontario, Oswego, Otsego, Rensselaer, Saratoga, Schoenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Tioga, Tompkins, Warren, Washington, Wayne, Yates

PARTIAL COUNTIES

Dutchess: The northern portion of the county from the northern boundary line of the City of Poughkeepsie, north.
Genesee: Only the portion of the county that lies east of a line down the center of Route 98 to include all area that lies within the City of Batavia.

WAGES

These rates apply to Building, Tunnel 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.

07/01/2019

Party Chief	\$ 41.51
Instrument Person	39.15
Rod Person	27.10

Additional \$3.00/hr. for Tunnel Work
Additional \$2.50/hr. for Hazardous Work Site

SUPPLEMENTAL BENEFITS

Per hour worked:

Journeyman	\$ 26.80
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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:

07/01/2019

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

SUPPLEMENTAL BENEFIT per hour worked:

0-1000	\$ 16.21
1001-2000	18.92
2001-3000	21.63

12-158-545 D.H.H.

Operating Engineer - Survey Crew - Consulting Engineer

07/01/2019

JOB DESCRIPTION Operating Engineer - Survey Crew - Consulting Engineer

DISTRICT 12

ENTIRE COUNTIES

Albany, Allegany, Broome, Cayuga, Chemung, Chenango, Clinton, Columbia, Cortland, Essex, Franklin, Fulton, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Niagara, Oneida, Onondaga, Ontario, Oswego, Otsego, Rensselaer, Saratoga, Schoenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Tioga, Tompkins, Warren, Washington, Wayne, Yates

PARTIAL COUNTIES

Dutchess: The northern portion of the county from the northern boundary line of the City of Poughkeepsie, north.
Genesee: Only the portion of the county that lies east of a line down the center of Route 98 to include all area that lies within the City of Batavia.

WAGES

These rates apply to feasibility and preliminary design surveying, line and 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.

07/01/2019

Party Chief	\$ 42.86
Instrument Person	39.37
Rod Person	29.14

Additional \$3.00/hr. for Tunnel Work.
Additional \$2.50/hr. for EPA or DEC certified toxic or hazardous waste work.

SUPPLEMENTAL BENEFITS

Per hour worked:

Journeyman	\$ 25.60
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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 percentage of Rod Persons Wage:

07/01/2019

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

SUPPLEMENTAL BENEFIT per hour worked:

0-1000	\$ 17.43
1001-2000	\$ 20.35
2001-3000	\$ 23.26

12-158-545 DCE

Operating Engineer - Survey Crew - Consulting Engineer

07/01/2019

JOB DESCRIPTION Operating Engineer - Survey Crew - Consulting Engineer

DISTRICT 9

ENTIRE COUNTIES

Bronx, Kings, Nassau, New York, Putnam, Queens, Richmond, Suffolk, Westchester

PARTIAL COUNTIES

Dutchess: That part in Dutchess County lying South of the North City line of Poughkeepsie.

WAGES

Feasibility and preliminary design surveying, any line and grade surveying for inspection or supervision of construction.

Per hour: 07/01/2019

Survey Classifications

Party Chief	\$ 43.71
Instrument Man	36.43
Rodman	31.84

SUPPLEMENTAL BENEFITS

Per Hour:

All Crew Members: \$ 19.50

OVERTIME PAY

OVERTIME:.... See (B, E*, Q, V) ON OVERTIME PAGE.

*Doubletime paid on the 9th hour on Saturday.

HOLIDAY

Paid: See (5, 6, 7, 11, 16) on HOLIDAY PAGE

Overtime: See (5, 6, 7, 11, 16) on HOLIDAY PAGE

9-15dconsult

Operating Engineer - Tunnel

07/01/2019

JOB DESCRIPTION Operating Engineer - Tunnel

DISTRICT 7

ENTIRE COUNTIES

Albany, Allegany, Broome, Cayuga, Chemung, Chenango, Clinton, Columbia, Cortland, Essex, Franklin, Fulton, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Oneida, Onondaga, Ontario, Oswego, Otsego, Rensselaer, Saratoga, Schoenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Tioga, Tompkins, Warren, Washington, Wayne, Yates

PARTIAL COUNTIES

Dutchess: Northern part of Dutchess to the northern boundary line of the City of Poughkeepie then due east to Route 115 to Bedelt Road then east along Bedelt Road to VanWagner Road then north along VanWagner Road to Bower Road then east along Bower Road to Rte. 44 east to Rte. 343 then along Rte. 343 east to the northern boundary of the Town of Dover Plains and east along the northern boundary of the Town of Dover Plains to Connecticut.

Genesee: Only that portion of the county that lies east of a line drawn down the center of Route 98 and the entirety of the City of Batavia.

WAGES

CLASS A: Automatic Concrete Spreader (CMI Type); Automatic Fine Grader; Backhoe (except tractor mounted, rubber tired); Belt Placer (CMI Type); Blacktop Plant (automated); Cableway; Caisson Auger; Central Mix Concrete Plant (automated); Concrete Curb Machine (self-propelled slipform); Concrete Pump (8" or over); Dredge; Dual Drum Paver; Excavator; Front End Loader (4 cu. yd & over); Gradall; Head Tower (Sauerman or Equal); Hoist (shaft); Hoist (two or three Drum); Log Chipper/Loader (self-feeder); Maintenance Engineer (shaft and tunnel); any Mechanical Shaft Drill; Mine Hoist; Mining Machine (Mole and similar types); Mucking Machine or Mole; Overhead Crane (Gantry or Straddle Type); Pile Driver; Power Grader; Remote Controlled Mole or Tunnel Machine; Scraper; Shovel; Side Boom; Slip Form Paver (If a second man is needed, they shall be an Oiler); Tripper/Maintenance Engineer (shaft & tunnel); Tractor Drawn Belt-Type Loader; Tug Operator (manned rented equipment excluded); Tunnel Shovel

CLASS B: Automated Central Mix Concrete Plant; Backhoe (topside); Backhoe (track mounted, rubber tired); Backhoe (topside); Bituminous Spreader and Mixer, Blacktop Plant (non-automated); Blast or Rotary Drill (truck or tractor mounted); Boring Machine; Cage Hoist; Central Mix Plant (non-automated); all Concrete Batching Plants; Compressors (4 or less exceeding 2,000 c.f.m. combined capacity); Concrete Pump; Crusher; Diesel Power Unit; Drill Rigs (tractor mounted); Front End Loader (under 4 cu. yd.); Grayco Epoxy Machine; Hoist (One Drum); Hoist (2 or 3 drum topside); Knuckle Boom material handler; Kolman Plant Loader & similar type Loaders (if employer requires another person to clean the screen or to maintain the equipment, they shall be an Oiler); L.C.M. Work Boat Operator; Locomotive; Maintenance Engineer (topside); Maintenance Grease Man; Mixer (for stabilized base-self propelled); Monorail Machine; Plant Engineer; Personnel Hoist; Pump Crete; Ready Mix Concrete Plant; Refrigeration Equipment (for soil stabilization); Road Widener; Roller (all above sub-grade); Sea Mule; Shotcrete Machine; Shovel (topside); Tractor with Dozer and/or Pusher; Trencher; Tugger Hoist; Tunnel Locomotive; Welder; Winch; Winch Cat

CLASS C: A Frame Truck; All Terrain Telescoping Material Handler; Ballast Regulator (ride-on); Compressors (4 not to exceed 2,000 c.f.m. combined capacity; or 3 or less with more than 1200 c.f.m. but not to exceed 2,000 c.f.m.); Compressors ((any size, but subject to other provisions for compressors), Dust Collectors, Generators, Pumps, Welding Machines, Light Plants (4 or any type combination)); Concrete Pavement Spreaders and Finishers; Conveyor; Drill (core); Drill (well); Electric Pump used in conjunction with Well Point System; Farm Tractor with Accessories; Fine Grade Machine; Fork Lift; Grout Pump (over 5 cu. ft.); Guniting Machine; Hammers (hydraulic-self-propelled); Hydra-Spiker (ride-on); Hydra-Blaster (water); Hydro-Blaster; Motorized Form Carrier; Post Hole Digger and Post Driver; Power Sweeper; Roller grade & fill); Scarifier (ride-on); Span-Saw (ride-on); Submersible Electric Pump (when used in lieu of well points); Tamper (ride-on); Tie-Extractor (ride-on), Tie Handler (ride-on), Tie Inserter (ride-on), Tie Spacer (ride-on); Track Liner (ride-on); Tractor with towed accessories; Vibratory Compactor; Vibro Tamp, Well Point

CLASS D: Aggregate Plant; Cement & Bin Operator; Compressors (3 or less not to exceed 1,200 c.f.m. combined capacity); Compressors ((any size, but subject to other provisions for compressors), Dust Collectors, Generators, Pumps, Welding Machines, Light Plants (3 or less or any type or combination)); Concrete Saw (self-propelled); Form Tamper; Greaseman; Hydraulic Pump (jacking system); Junior Engineer; Light Plants; Mulching Machine; Oiler; Parapet Concrete or Pavement Grinder; Power Broom (towed); Power Heaterman (when used for production); Revinius Widener; Shell Winder; Steam Cleaner; Tractor

WAGES per hour:

	07/01/2019	07/01/2020	07/01/2021	07/01/2022
Master Mechanic	\$ 48.00	\$ 49.45	\$ 51.00	\$ 52.60
CLASS A	45.59	47.04	48.59	50.19

CLASS B	44.37	45.82	47.37	48.97
CLASS C	41.58	43.03	44.58	46.18
CLASS D	38.57	40.02	41.57	43.17

Additional \$5.00 per hour for Hazardous Waste Work on a state or federally designated hazardous waste site where the Operating Engineer is in direct contact with hazardous material and when personal protective equipment is required for respiratory, skin and eye protection. Fringe benefits will be paid at the hourly wage premium.

CRANES:

Crane 1: All cranes, including self-erecting to be paid \$4.00 per hour over the Class A rate.

Crane 2: All Lattice Boom Cranes and all cranes with a manufacturer's rating of fifty (50) ton and over to be paid \$3.00 per hour over Class A rate.

Crane 3: All hydraulic cranes and derricks with a manufacturer's rating of forty nine (49) ton and below, including boom trucks, to be paid \$2.00 per hour over Class A rate.

Crane 1	\$ 49.59	\$ 51.04	\$ 52.59	\$ 54.19
Crane 2	48.59	50.04	51.59	53.19
Crane 3	47.59	49.04	50.59	52.19

SUPPLEMENTAL BENEFITS

Per hour:	\$ 28.40	\$ 30.75	\$ 31.90	\$ 33.05
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OVERTIME PAY

See (B, B2, E, Q, X) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 6) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

If a holiday falls on Sunday, it shall be observed on Monday.

REGISTERED APPRENTICES

WAGES:(1000) hours terms at the following percentage of Journeyman's wage.

1st term	60% of Class B
2nd term	65% of Class B
3rd term	70% of Class B
4th term	75% of Class B

SUPPLEMENTAL BENEFITS per hour paid: Same as Journeyman

7-158-832TL.

Painter

07/01/2019

JOB DESCRIPTION Painter

DISTRICT 1

ENTIRE COUNTIES

Columbia, Dutchess, Greene, Orange, Sullivan, Ulster

WAGES

Per hour 07/01/2019

Brush/Paper Hanger	\$ 34.14
Dry Wall Finisher	34.14
Lead Abatement	34.14
Sandblaster-Painter	34.14
Spray Rate	35.14

See Bridge Painting rates for the following work:

Structural Steel , all work performed on tanks, ALL BRIDGES, towers, smoke stacks, flag poles. Rate shall apply to all of said areas from the ground up.

SUPPLEMENTAL BENEFITS

Per hour	
Journeyman	\$ 23.39

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

Six (6) month terms at the following percentage of Journeyman's wage

1st	2nd	3rd	4th	5th	6th
40%	50%	60%	70%	80%	90%

Supplemental Benefits per hour worked

1st term	\$ 10.49
All others	23.39

1-155

Painter - Bridge & Structural Steel

07/01/2019

JOB DESCRIPTION Painter - Bridge & Structural Steel

DISTRICT 8

ENTIRE COUNTIES

Albany, Bronx, Clinton, Columbia, Dutchess, Essex, Franklin, Fulton, Greene, Hamilton, Kings, Montgomery, Nassau, New York, Orange, Putnam, Queens, Rensselaer, Richmond, Rockland, Saratoga, Schenectady, Schoharie, Suffolk, Sullivan, Ulster, Warren, Washington, Westchester

WAGES

Per Hour:

STEEL:

Bridge Painting: 07/01/2019

\$ 49.50
+ 6.38*

ADDITIONAL \$6.00 per hour for POWER TOOL/SPRAY, whether straight time or overtime.

NOTE: All premium wages are to be calculated on base rate per hour only.

* For the period of May 1st to November 15th, this amount is payable up to 40 hours. For the period of Nov 16th to April 30th, this amount is payable up to 50 hours. EXCEPTION: First and last week of employment, and for the weeks of Memorial Day, Independence Day and Labor Day, where the amount is paid for the actual number of hours worked (no cap).

NOTE: Generally, 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.

SUPPLEMENTAL BENEFITS

Per Hour:

Journeyworker: 07/01/2019

\$ 9.50
+26.05*

* For the period of May 1st to November 15th, this amount is payable up to 40 hours. For the period of Nov 16th to April 30th, this amount is payable up to 50 hours. EXCEPTION: First and last week of employment, and for the weeks of Memorial Day, Independence Day and Labor Day, where the amount is paid for the actual number of hours worked (no cap).

OVERTIME PAY

See (A, F, R) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (4, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wage - Per hour:

Apprentices: (1) year terms

07/01/2019

1st year	\$ 23.13
2nd year	34.73
3rd year	46.30

Supplemental Benefits - Per hour:

1st year	\$ 13.44
2nd year	20.16
3rd year	26.88

8-DC-9/806/155-BrSS

Painter - Line Striping

07/01/2019

JOB DESCRIPTION Painter - Line Striping

DISTRICT 8

ENTIRE COUNTIES

Albany, Bronx, Clinton, Columbia, Dutchess, Essex, Franklin, Fulton, Greene, Hamilton, Kings, Montgomery, Nassau, New York, Orange, Putnam, Queens, Rensselaer, Richmond, Rockland, Saratoga, Schenectady, Schoharie, Suffolk, Sullivan, Ulster, Warren, Washington, Westchester

WAGES

Per hour:

Painter (Striping-Highway):	07/01/2019
Striping-Machine Operator*	\$ 29.93
Linerman Thermoplastic	\$ 36.06

Note: * Includes but is not limited to: Positioning of cones and directing of traffic using hand held devices. Excludes the Driver/Operator of equipment used in the maintenance and protection of traffic safety.

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 paid: 07/01/2019
 Journeyworker:

Striping-Machine operator	\$ 7.44
Linerman Thermoplastic	\$ 7.44

OVERTIME PAY

See (B, B2, E2, F, S) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 20) on HOLIDAY PAGE
 Overtime: See (5, 20) on HOLIDAY PAGE

REGISTERED APPRENTICES

One (1) year terms at the following wage rates:

07/01/2019

1st term	\$ 11.97
2nd term	17.96
3rd term	23.94

Supplemental Benefits per hour:

1st term	\$ 7.44
2nd term	7.44
3rd term	7.44

8-1456-LS

Painter - Metal Polisher

07/01/2019

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

07/01/2019

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: 07/01/2019

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:

07/01/2019

1st year	\$ 15.00
2nd year	15.00
3rd year	15.75
1st year*	\$ 17.39
2nd year*	17.44
3rd year*	18.29
1st year**	\$ 19.50
2nd year**	19.50
3rd year**	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
2nd year	5.52
3rd year	5.52

8-8A/28A-MP

Plumber

07/01/2019

JOB DESCRIPTION Plumber

DISTRICT 8

ENTIRE COUNTIES

Dutchess

PARTIAL COUNTIES

Delaware: Only the Townships of Middletown and Roxbury.
Ulster: Entire county (including Walkkill and Shawangunk Prisons in Town of Shawangunk) EXCEPT for remainder of Town of Shawangunk, and Towns of Plattekill, Marlboro, and Wawarsing.

WAGES

Per hour: 07/01/2019
Plumber &
Steamfitter \$ 51.58

SHIFT WORK:

When directly specified in public agency or authority contract documents, shift work outside the regular hours of work shall be comprised of eight (8) hours per shift not including Saturday, Sundays and holidays. One half (1/2) hour shall be allowed for lunch after the first four (4) hours of each shift. Wage and Fringes for shift work shall be straight time plus a shift premium of twenty-five (25%) percent. A minimum of five days Monday through Friday must be worked to establish shift work.

SUPPLEMENTAL BENEFITS

Per hour:

Journeyworker: \$ 36.58

OVERTIME PAY

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

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

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

REGISTERED APPRENTICES

(1)year terms at the following rates:

07/01/2019

1st year	\$ 19.60
2nd year	27.17
3rd year	31.53
4th year	37.87
5th year	43.70

Supplemental Benefits per hour:

1st year	\$ 15.60
2nd year	19.85
3rd year	23.05
4th year	26.56
5th year	29.18

8-21.2-SF

Plumber - HVAC / Service

07/01/2019

JOB DESCRIPTION Plumber - HVAC / Service

DISTRICT 8

ENTIRE COUNTIES

Dutchess, Putnam, Westchester

PARTIAL COUNTIES

Delaware: Only the townships of Middletown and Roxbury

Ulster: Entire County(including Walkill and Shawangunk Prisons) except for remainder of Town of Shawangunk and Towns of Plattekill, Marlboro, and Wawarsing.

WAGES

Per hour: 07/01/2019

HVAC Service \$ 38.18
+ \$ 4.32*

*Note: This portion of wage is not subject to overtime premium.

SUPPLEMENTAL BENEFITS

Per hour:

07/01/2019

Journeyworker HVAC Service

\$ 22.44

OVERTIME PAY

See (B, F, R) on OVERTIME PAGE

HOLIDAY

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

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

REGISTERED APPRENTICES

HVAC SERVICE

(1)year terms at the following wages:

07/01/2019

1st yr. 2nd yr. 3rd yr. 4th yr. 5th yr.

\$ 17.37	\$ 20.50	\$ 25.69	\$ 31.56	\$ 34.11
+\$2.37*	+\$2.67*	+\$3.22*	+\$3.84*	+\$4.07*

*Note: This portion of wage is not subject to overtime premium.

Supplemental Benefits per hour:

Apprentices	07/01/2019
1st term	\$ 17.82
2nd term	18.61
3rd term	19.54
4th term	20.74
5th term	21.63

8-21.1&2-SF/Re/AC

Plumber - Jobbing & Alterations **07/01/2019**

JOB DESCRIPTION Plumber - Jobbing & Alterations

DISTRICT 8

ENTIRE COUNTIES
Dutchess, Putnam, Westchester

PARTIAL COUNTIES
Ulster: Entire county (including Wallkill and Shawangunk Prisons in Town of Shawangunk) EXCEPT for remainder of Town of Shawangunk, and Towns of Plattekill, Marlboro, and Wawarsing.

WAGES
Per hour: 07/01/2019
Journeyworker: \$ 44.19

Repairs, replacements and alteration work is any repair or replacement of a present plumbing system that does not change existing roughing or water supply lines.

SHIFT WORK:
When directly specified in public agency or authority contract documents, shift work outside the regular hours of work shall be comprised of eight (8) hours per shift not including Saturday, Sundays and holidays. One half (1/2) hour shall be allowed for lunch after the first four (4) hours of each shift. Wage and Fringes for shift work shall be straight time plus a shift premium of twenty-five (25%) percent. A minimum of five days Monday through Friday must be worked to establish shift work.

SUPPLEMENTAL BENEFITS
Per hour:
Journeyworker
\$ 30.04

OVERTIME PAY
See (B, *E, E2, Q, V) on OVERTIME PAGE
*When used as a make-up day, hours after 8 on Saturday shall be paid at time and one half.

HOLIDAY
Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6, 8, 16, 25) on HOLIDAY PAGE

REGISTERED APPRENTICES
(1) year terms at the following wages:

1st year	\$ 19.24
2nd year	21.33
3rd year	23.05
4th year	32.41
5th year	34.21

Supplemental Benefits per hour:

1st year	\$ 9.60
2nd year	11.36
3rd year	15.07
4th year	20.31
5th year	22.11

8-21.3-J&A

Roofer **07/01/2019**

JOB DESCRIPTION Roofer

DISTRICT 9

ENTIRE COUNTIES

Bronx, Dutchess, Kings, New York, Orange, Putnam, Queens, Richmond, Rockland, Sullivan, Ulster, Westchester

WAGES

Per Hour: 07/01/2019

Roofer/Waterproofer \$ 49.50

Note: Abatement/Removal of Asbestos containing roofs and roofing material is classified as Roofer.

SUPPLEMENTAL BENEFITS

Per Hour: \$ 26.37

OVERTIME PAY

See (B, H) on OVERTIME PAGE

Note: An observed holiday that falls on a Sunday will be observed the following Monday.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

(1) year term

	1st	2nd	3rd	4th
	\$ 14.88	\$ 24.75	\$ 29.70	\$ 37.14

Supplements:

	1st	2nd	3rd	4th
	\$ 3.30	\$ 13.21	\$ 15.84	\$ 19.79

9-8R

Sheetmetal Worker

07/01/2019

JOB DESCRIPTION Sheetmetal Worker

DISTRICT 8

ENTIRE COUNTIES

Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster, Westchester

WAGES

Per Hour: 07/01/2019

SheetMetal Worker \$ 44.74

SHIFT WORK

For all NYS D.O.T. and other Governmental mandated off-shift work:

10% increase for additional shifts for a minimum of five (5) days

SUPPLEMENTAL BENEFITS

Journeyworker \$ 42.48

OVERTIME PAY

OVERTIME:.. See (B, E, Q,) on OVERTIME PAGE.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6, 8, 15, 16, 23) on HOLIDAY PAGE

REGISTERED APPRENTICES

	1st	2nd	3rd	4th	5th	6th	7th	8th
	\$16.60	\$18.67	\$ 20.75	\$ 22.83	\$ 24.89	\$ 26.98	\$ 29.53	\$ 32.08

Supplemental Benefits per hour:

Apprentices

1st term	\$ 18.30
2nd term	20.59
3rd term	22.85
4th term	25.17
5th term	27.44
6th term	29.72
7th term	31.51
8th term	33.34

8-38

Sprinkler Fitter

07/01/2019

JOB DESCRIPTION Sprinkler Fitter

DISTRICT 1

ENTIRE COUNTIES

Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster, Westchester

WAGES

Per hour

07/01/2019

Sprinkler \$ 45.42
 Fitter

SUPPLEMENTAL BENEFITS

Per hour

Journeyman \$ 25.54

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
\$ 9.30	\$ 9.36	\$ 18.04	\$ 18.10	\$ 18.66	\$ 18.72	\$ 18.78	\$ 18.83	\$ 18.89	\$ 18.95

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	\$ 18.04	\$ 18.04	\$ 18.29	\$ 18.29	\$ 18.29	\$ 18.29	\$ 18.29	\$ 18.29

Teamster - Building / Heavy&Highway

07/01/2019

JOB DESCRIPTION Teamster - Building / Heavy&Highway

DISTRICT 11

ENTIRE COUNTIES

Dutchess, Orange, Rockland, Sullivan, Ulster

WAGES

GROUP 1: LeTourneau Tractors, Double Barrel Euclids, Athney Wagons and similar equipment (except when hooked to scrapers), I-Beam and Pole Trailers, Tire Trucks, Tractor and Trailers with 5 axles and over, Articulated Back Dumps and Road Oil Distributors, Articulated Water Trucks and Fuel Trucks/Trailers, positions requiring a HAZMAT CDL endorsement.

GROUP 1A: Drivers on detachable Gooseneck Low Bed Trailers rated over 35 tons.

GROUP 2: All equipment 25 yards and up to and including 30 yard bodies and cable Dump Trailers and Powder and Dynamite Trucks.

GROUP 3: All Equipment up to and including 24-yard bodies, Mixer Trucks, Dump Crete Trucks and similar types of equipment, Fuel Trucks, Batch Trucks and all other Tractor Trailers, Hi-Rail Truck.

GROUP 4: Tri-Axles, Ten Wheelers, Grease Trucks, Tillerman, Pattern Trucks, Attenuator Trucks. Water Trucks, Bus.

GROUP 5: Straight Trucks.

GROUP 6: Pick-up Trucks for hauling materials and parts, and Escort Man over-the-road.

WAGES: (per hour) 07/01/2019

GROUP 1	\$ 33.25
GROUP 1A	34.39
GROUP 2	32.69
GROUP 3	32.47
GROUP 4	32.36
GROUP 5	32.24
GROUP 6	32.24

NOTE ADDITIONAL PREMIUMS:

- On projects requiring an irregular shift a premium of 10% will be paid on wages. The premium will be paid for off-shift or irregular shift work when mandated by Governmental Agency.
- Employees engaged in hazardous/toxic waste removal, on a State or Federally designated hazardous/toxic waste site, where the employee comes in contact with hazardous/toxic waste material and when personal protective equipment is required for respiratory, skin, or eye protection, the employee shall receive an additional 20% premium above the hourly wage.

SUPPLEMENTAL BENEFITS

Per hour:

First 40 hours	\$ 35.55
Over 40 hours	28.75

OVERTIME PAY

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

*Holidays worked Monday through Friday receive Double Time (2x) after 8 hours.

**Sunday Holidays are paid at a rate of double time and one half (2.5x) for all hours worked.

HOLIDAY

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

Overtime: See (*1) on HOLIDAY PAGE

*See OVERTIME PAY section for when additional premium is applicable on Holiday hours worked.

11-445B/HH

Welder

07/01/2019

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 07/01/2019

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

- (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
- (U) Four times the hourly rate for Holidays
- (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

NYS DOL Bureau of Public Work Debarment List 06/27/2019

Article 8

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 STREETRIDGWOOD NY 11385	05/15/2015	05/15/2020
DOL	DOL	****4539	ACCOMPLISHED WALL SYSTEMS INC		112 OSCAWANNA HEIGHTS RD PUTNAM VALLEY NY 10542	03/13/2015	03/12/2020
DOL	DOL	****3344	ACT INC		6409 LAND O LAKES BLVD LAND O LAKES FL 34638	11/10/2015	11/10/2020
DOL	DOL	****4018	ADIRONDACK BUILDING RESTORATION INC.		4156 WILSON ROAD EAST TABERG NY 13471	03/26/2019	03/26/2024
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	DOL		ANGELO F COKER			12/04/2018	12/04/2023
DOL	NYC		ANISUL ISLAM		C/O RELIANCE GENERAL CONS 644 OCEAN PARKWAYBROOKLYN NY 11230	09/02/2015	09/02/2020
DOL	DOL		ANITA SALERNO		158 SOLAR ST SYRACUSE NY 13204	01/07/2019	01/07/2024
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	NYC	****9232	ARKAY CONSTRUCTION INC		102-104 GREYLOCK AVENUE BELLEVILLE NJ 07109	07/15/2015	07/15/2020
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
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	NYC	****2591	AVI 212 INC.		260 CROPSEY AVENUE APT 11GBROOKLYN NY 11214	10/30/2018	10/30/2023
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

NYS DOL Bureau of Public Work Debarment List 06/27/2019

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DOL	AG		BALDEV SINGH		116-24 127TH STREET SOUTH OZONE PARK NY 11420	12/22/2015	12/22/2020
DOL	NYC		BALWINDER SINGH		421 HUDSON ST SUITE C5NEW YORK NY 10014	02/20/2019	02/20/2024
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	NYC	****8416	BEAM CONSTRUCTION, INC.		50 MAIN ST WHITE PLAINS NY 10606	01/04/2019	01/04/2024
DOL	DOL		BIAGIO CANTISANI			06/12/2018	06/12/2023
DOL	DOL		BOGDAN MARKOVSKI		370 W. PLEASANTVIEW AVE SUITE 2.329HACKENSACK NJ 07601	02/11/2019	02/11/2024
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		BRUCE P. NASH JR.		5841 BUTTERNUT ROAD EAST SYRACUSE NY 13057	09/12/2018	09/12/2023
DOL	DOL	****8809	C.B.E. CONTRACTING CORPORATION		310 MCGUINNESS BLVD GREENPOINT NY 11222	03/07/2017	03/07/2022
DOL	DOL	****9383	C.C. PAVING AND EXCAVATING, INC.		2610 SOUTH SALINA ST SUITE 12SYRACUSE NY 13205	12/04/2018	12/04/2023
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 CONTRACTING AND CARMODY CONTRACTING 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	****8809	CBE CONTRACTING CORP		142 EAST MARKET STREET LONG BEACH NY 11561	03/07/2017	03/07/2022
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

NYSDOL Bureau of Public Work Debarment List 06/27/2019

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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		CHRISTOPHER J MAINI		19 CAITLIN AVE JAMESTOWN NY 14701	09/17/2018	09/17/2023
DOL	DOL	****0671	CJ-HEARNE CONSTRUCTION CO		SUITE 204 131 PONCE DE LEON AVENUEATLANTA GA 30308	12/01/2015	12/01/2020
DOL	DOL	****1927	CONSTRUCTION PARTS WAREHOUSE, INC.	CPW	5841 BUTTERNUT ROAD EAST SYRACUSE NY 13057	09/12/2018	09/12/2023
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	****2524	CSI ELECTRICAL & MECHANICAL INC		42-32 235TH ST DOUGLSTON NY 11363	01/14/2019	01/14/2024
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		DARIAN L COKER		2610 SOUTH SALINA ST SUITE 2CSYRACUSE NY 13205	12/04/2018	12/04/2023
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	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	DOL		DEDA GAZIVODAN		C/O DAKA PLUMBING AND H 2561 ROUTE 55POUGHQUAG NY 12570	02/19/2016	02/19/2021
DOL	DOL		DENNIS SCHWANDTNER		C/O YES SERVICE AND REPAI 145 LODGE AVEHUNTINGTON STATION NY 11476	08/09/2016	08/09/2021
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	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 CONSTRUCTI ON	64 VICTORIA DRIVE B INGHAMTON NY 13904	02/04/2016	02/04/2021
DOL	DOL		E C WEBB		6409 LAND O LAKES BLVD LAND O LAKES FL 34638	11/10/2015	11/10/2020
DOL	DOL		EARL L WILSON	WILSON BROTHER DRYWALL CONTRACTOR S	36 ABERSOLD STREET ROCHESTER NY 14621	08/31/2015	08/31/2020

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DOL	DOL		EAST COAST PAVING		2238 BAKER RD GILLETT PA 16923	03/12/2018	03/12/2023
DOL	DOL	****0780	EMES HEATING & PLUMBING CONTR		5 EMES LANE MONSEY NY 10952	01/20/2002	01/20/3002
DOL	DOL	****3270	EMPIRE TILE INC		6 TREMONT COURT HUNTINGTON STATION NY 11746	03/08/2016	03/08/2021
DOL	DOL	****7403	F & B PAINTING CONTRACTING INC		2 PARKVIEW AVENUE HARRISON NY 10604	09/26/2016	09/26/2021
DOL	DOL		FAIGY LOWINGER		11 MOUNTAIN RD 28 VAN BUREN DR MONROE NY 10950	03/20/2019	03/20/2024
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		FRANK BENEDETTO		19 CATLIN AVE JAMESTOWN NY 14701	09/17/2018	09/17/2023
DOL	DOL		FRANK BENEDETTO		C/O F & B PAINTING CONTRA 2 PARKVIEW AVENUE HARRISON NY 10604	09/26/2016	09/26/2021
DOL	DOL	****4722	FRANK BENEDETTO AND CHRISTOPHER J MAINI	B & M CONCRETE	19 CAITLIN AVE JAMESTOWN NY 14701	09/17/2018	09/17/2023
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		GALINDA ROTENBERG		C/O GMDV TRANS INC 67-48 182ND STREET FRESH MEADOWS NY 11365	06/24/2016	06/24/2021
DOL	DOL		GEOFF CORLETT		415 FLAGGER AVE #302 STUART FL 34994	10/31/2018	10/31/2023
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	NYC		GREAT ESTATE CONSTRUCTION, INC.		327 STAGG ST BROOKLYN NY 11206	10/10/2017	10/10/2022
DOL	DOL		GREGORY S. OLSON		P.O BOX 100 200 LATTA BROOK PARKHORSEHEADS 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	NYC		HAMEEDUL HASAN		240 HOME STREET TEANECK NJ 07666	08/04/2014	08/04/2019
DOL	NYC		HARMEL SINGH		15 CLINTON LANE HICKSVILLE NY 11801	02/25/2016	02/25/2021
DOL	NYC		HAROLD KUEMMELE		58-83 54TH STREET MASPETH NY 11378	02/26/2016	02/26/2021
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	DOL	****5131	INTEGRITY MASONRY, INC.	M&R CONCRETE	722 8TH AVE WATERVLIET NY 12189	06/05/2018	06/05/2023
DOL	AG		J A M CONSTRUCTION CORP		SUITE 125 265 SUNRISE HIGHWAY ROCKVILLE CENTRE NY 10457	04/07/2016	04/07/2021
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 LATTA BROOK PARKHORSEHEADS NY 14845	03/08/2018	03/08/2023
DOL	DOL		JAMES B RHYNDERS		91 COLLEGE AVENUE POUGHKEEPSIE NY 12603	12/04/2015	12/04/2020
DOL	DOL		JAMES C. DELGIACCO		722 8TH AVE WATERVLIET NY 12189	06/05/2018	06/05/2023

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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 HIGHWAYROCKVILLE CENTRE NY 10457	04/07/2016	04/07/2021
DOL	DOL		JAMES LIACONE		9365 WASHINGTON ST LOCKPORT IL 60441	07/23/2018	07/23/2023
DOL	DOL		JAMES RACHEL		9365 WASHINGTON ST LOCKPORT IL 60441	07/23/2018	07/23/2023
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 W MILLIMAN		C/O ROCHESTER ACOUSTICAL P O BOX 799HILTON NY 14468	02/19/2016	02/19/2021
DOL	DOL	****5368	JCH MASONRY & LANDSCAPING INC.		35 CLINTON AVE OSSINING NY 10562	09/12/2018	09/12/2023
DOL	NYC		JEFFREY CASSIDY		14 RAILROAD AVENUE VALHALLA NY 10595	05/15/2014	04/02/2020
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 BRRESTORATION NY INC 140 ARCADIA AVENUEOSWEGO 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 F. CADWALLADER		200 LATTA BROOK PARK HORSEHEADS NY 14845	03/08/2018	03/08/2023
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		JORI PEDERSEN		415 FLAGER AVE #302STUART FL 34994	10/31/2018	10/31/2023
DOL	DOL		JOSE CHUCHUCA		35 CLINTON AVE OSSINING NY 10562	09/12/2018	09/12/2023
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 RD PUTNAM VALLEY NY 10542	03/13/2015	03/13/2020
DOL	DOL		JUANA MARTINEZ		C/O LEAD CONSTRUCTION 27 BUTLER PLACEYONKERS NY 10710	03/19/2015	03/19/2020
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	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

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DOL	DOL	****3490	L & M CONSTRUCTION/DRYWALL INC.		1079 YONKERS AVE YONKERS NY 10704	08/07/2018	08/07/2023
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 RD PUTNAM VALLEY NY 10542	03/13/2015	03/13/2020
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	****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
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	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	DA	****4460	LONG ISLAND GLASS & STOREFRONTS, LLC		4 MANHASSET TRL RIDGE NY 11961	09/06/2018	09/06/2023
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	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	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

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DOL	DA		MANUEL TOBIO		150 KINGS STREET BROOKLYN NY 11231	08/19/1998	08/19/2998
DOL	NYC		MAREK FABIJANOWSKI		50 MAIN ST WHITE PLAINS NY 10606	01/04/2019	01/04/2024
DOL	DOL		MARIACHI'S PIZZERIA		C/O DOUGLAS L MALARKEY 64 VICTORIA DRIVE BINGHAMTON 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		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
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		MATTHEW P. KILGORE		4156 WILSON ROAD EAST TABERG NY 13471	03/26/2019	03/26/2024
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		MCLEAN "MIKKI BEANE"		1229 JAMES STREET SYRACUSE NY 13203	05/02/2017	05/02/2022
DOL	DOL		MCLEAN "MIKKI" DRAKE		1229 JAMES STREET SYRACUSE NY 13203	05/02/2017	05/02/2022
DOL	DOL		MCLEAN M DRAKE-BEANE		1229 JAMES STREET SYRACUSE NY 13203	05/02/2017	05/02/2022
DOL	DOL	****9445	MCLEAN M WALSH	ELITE PROFESSION AL PAINTING OF CNY	1229 JAMES STREET SYRACUSE NY 13203	05/02/2017	05/02/2022
DOL	DOL	****9445	MCLEAN M WALSH	ELITE PROFESSION AL PAINTING OF CNY	1229 JAMES STREET SYRACUSE NY 13203	05/02/2017	05/02/2022
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 LENIHAN		1079 YONKERS AVE UNIT 4YONKERS NY 10704	08/07/2018	08/07/2023
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	NYC		MILANCE HADZIC		22 CALIFORNIA AVE - STE 1 PATERSON NJ 07503	03/11/2015	03/11/2020
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	DA	****9786	NATIONAL INSULATION & GC CORP		180 MILLER PLACE HICKSVILLE NY 11801	12/12/2018	12/12/2023
DOL	NYC	****1284	NEW AMERICAN RESTORATION INC		22 CALIFORNIA AVE - STE 1 PATERSON NJ 07503	03/11/2015	03/11/2020

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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	****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		ORSON ARROYO		C/O METRO DUCT SYSTEMS 12-19 ASTORIA BOULEVARDLONG ISLAND CITY NY 11102	04/16/2014	11/19/2020
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	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	****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	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		RANTI KARIKH		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	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	DA		RIANN MULLER		2740 SW MARTIN DOWNS BLVD PALM CITY FL 34990	08/25/2016	08/25/2021
DOL	DOL	****9148	RICH T CONSTRUCTION		107 WILLOW WOOD LANE CAMILLUS NY 13031	11/13/2018	11/13/2023
DOL	DOL		RICHARD MACONE		8617 THIRD AVE BROOKLYN NY 11209	09/17/2018	09/17/2023
DOL	DOL	****9148	RICHARD TIMIAN	RICH T CONSTRUCTI ON	108 LAMONT AVE SYRACUSE NY 13209	10/16/2018	10/16/2023
DOL	DOL		RICHARD TIMIAN JR.		108 LAMONT AVE SYRACUSE NY 13209	10/16/2018	10/16/2023
DOL	DOL		RICHARD TIMIAN JR.		108 LAMONT AVE SYRACUSE NY 13209	11/13/2018	11/13/2023
DOL	DOL	****8618	RIEKS CONTRACTING LLC		4804 GAHWILER ROAD AUBURN NY 13021	05/01/2015	05/01/2020
DOL	DOL		ROBBYE BISSE SAR		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
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

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DOL	DOL	****3859	ROCHESTER ACOUSTICAL CORP		P O BOX 799 HILTON NY 14468	02/19/2016	02/19/2021
DOL	DOL		RODERICK PUGH		404 OAK ST SUITE 101SYRACUSE NY 13203	07/23/2018	07/23/2023
DOL	DOL	****4880	RODERICK PUGH CONSTRUCTION INC.		404 OAK ST SUITE 101SYRACUSE NY 13203	07/23/2018	07/23/2023
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		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	DOL	****1365	S & L PAINTING, INC.		11 MOUNTAIN ROAD P.O BOX 408MONROE NY 10950	03/20/2019	03/20/2024
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	AG		SERGIO RAYMUNDO		109 DUBOIS RD. NEW PALTZ NY 12561	05/20/2016	05/20/2021
DOL	NYC	****6597	SHAIRA CONSTRUCTION CORP.		421 HUDSON STREET SUITE C5NEW YORK NY 10014	02/20/2019	02/20/2024
DOL	DOL	****1961	SHANE BURDICK	CENTRAL TRAFFIC CONTROL, LLC.	2238 BAKER ROAD GILLETT PA 16923	03/12/2018	03/12/2023
DOL	DOL		SHANE BURDICK		2238 BAKER ROAD GILLETT PA 16923	03/12/2018	03/12/2023
DOL	DOL		SHANE NOLAN		9365 WASHINGTON ST LOCKPORT IL 60441	07/23/2018	07/23/2023
DOL	DOL		SHULEM LOWINGER		11 MOUNTAIN ROAD 28 VAN BUREN DRMONROE NY 10950	03/20/2019	03/20/2024
DOL	DOL	****0816	SOLAR ARRAY SOLUTIONS, LLC		9365 WASHINGTON ST LOCKPORT IL 60441	07/23/2018	07/23/2023
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	****9751	STEPHEN C WAGAR		544 OLD ROUTE 23 ACRE NY 12405	02/14/2017	02/14/2022
DOL	DOL		STEVE TATE		415 FLAGER AVE #302STUART FL 34994	10/31/2018	10/31/2023
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	NYC	****9432	SUBLINK LTD		346 THIRD AVENUE PELHAM NY 10803	11/19/2015	11/19/2020
DOL	DOL	****1060	SUNN ENTERPRISES GROUP, LLC		370 W. PLEASANTVIEW AVE SUITE 2.329HACKENSACK NJ 07601	02/11/2019	02/11/2024
DOL	DOL	****8209	SYRACUSE SCALES, INC.		158 SOLAR ST SYRACUSE NY 13204	01/07/2019	01/07/2024
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

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DOL	DOL		TADCO CONSTRUCTION		101-61 99TH STREET OZONE PARK NY 11416	02/15/2017	02/15/2022
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	****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	****5766	THE COKER CORPORATION	COKER CORPORATIO N	2610 SOUTH SALINA ST SUITE 14SYRACUSE NY 13205	12/04/2018	12/04/2023
DOL	DOL	****8174	THE DALRYMPLE CORPORATION		UNIT 278 541 10TH STREET NWTALANTA 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		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	****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	DOL	****6392	V.M.K CORP.		8617 THIRD AVE BROOKLYN NY 11209	09/17/2018	09/17/2023
DOL	NYC		VALERIE VISCONTI		346 THIRD AVENUE PELHAM NY 10803	11/19/2015	11/19/2020
DOL	DOL		VICTOR ALICANTI		42-32 235TH ST DOUGLSTON NY 11363	01/14/2019	01/14/2024
DOL	DOL		VICTOR ROTENBERG		C/O GMDV TRANS INC 67048 182ND STREETFRESH MEADOWS NY 11365	06/24/2016	06/24/2021
DOL	NYC		VIKTAR PATONICH		2630 CROPSEY AVE BROOKLYN NY 11214	10/30/2018	10/30/2023
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
DOL	DOL		WILLIAM C WATKINS		1229 JAMES STREET SYRACUSE NY 13203	05/02/2017	05/02/2022
DOL	DOL		WILLIAM DEAK		C/O MADISON AVE CONSTR CO 39 PENNY STREETWEST ISLIP NY 11795	11/02/2016	11/02/2021
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	****4730	XGD SYSTEMS, LLC	TDI GOLF	415 GLAGE AVE #302STUART FL 34994	10/31/2018	10/31/2023
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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DOL	NYC		ZAKIR NASEEM		30 MEADOW ST BROOKLYN NY 11206	10/10/2017	10/10/2022
DOL	NYC	*****8277	ZHN CONTRACTING CORP		30 MEADOW ST BROOKLYN NY 11206	10/10/2017	10/10/2022