

VILLAGE OF CLAYTON GENERAL CONDITIONS AND STANDARDIZATION OF ALL AS-BUILT/RECORD DRAWINGS

(MUST BE SUPPLIED FOR ANY CAPITAL PROJECT REQUIRING A
PROFESSIONAL ENGINEERING FIRM OR EQUIVALENT)

GENERAL CONDITIONS

1. **CONTRACT CLOSEOUT INSPECTIONS**

A. The following 3 inspections will be made in addition to the normal inspections to ensure that all Contract requirements are met and that the Work is complete and acceptable. The purpose of each of these inspections is to furnish the Contractor a written list of Contract exceptions, omissions, and incomplections so that the Work can be progressed to timely completion in accordance with the Contract Documents.

(1) *Detailed Inspection*: The "Detailed Inspection" will be made when the Work is substantially complete. A copy of the detailed inspection list will be furnished to the Contractor. When this inspection progresses over any lengthy of time, copies of the list will be furnished as the inspection progresses so that the Contractor may proceed with the required Work without delay.

(2) *Final Inspection*: The Contractor will be advised by letter of the date and time of final inspection. A copy of the final inspection list containing all incomplete or unsatisfactory items and the time allowed to complete the Work will be furnished to the Contractor.

(3) *Joint Inspection for Physical Completion*: The joint inspection for physical completion will be made to verify completion of the exception items listed on the final inspection list so that the physical completion date (defined in the General Conditions) may be established.

2. **DAILY PERFORMANCE AND FINAL CLEANING**

A. Perform final cleaning prior to joint inspection for physical completion. Leave the premises in a neat, unobstructed condition, the work areas broom clean (except where more thorough cleaning is specified), and everything in perfect repair and adjustment.

B. Clean site, sweep paved areas, rake clean landscaped surfaces.

C. Remove tools, equipment, waste and surplus materials, rubbish, and construction facilities from the premises as soon as possible upon completion of the Work.

D. Respect for private and public property at all times. No littering or burying of litter or debris at work site.

E. Equipment will be located in specified location acceptable by VOC when equipment not in use.

3. **PROJECT RECORD DOCUMENTS**

A. Maintain on site, 2 sets of the following as-built/record drawings; record actual revisions to the Work:

(1) Contract drawings.

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- (2) Project manual.
- (3) Addenda.
- (4) Change Orders and other modifications to the Contract.
- (5) Reviewed shop drawings, product data, and samples.

B. Store record documents separate from documents used for construction.

C. Record information concurrent with construction progress.

D. *Project Manual*: Legibly mark and record in each Section of the Specifications, a description of the actual products installed, including the following:

- (1) Manufacturer's name and product model and number.
- (2) Product substitutions or alternates utilized.
- (3) Changes made by addend and modifications.

E. *Record Documents and Shop Drawings*: Legibly mark each item to record actual construction, including:

- (1) Measured depths of foundations in relation to finish (first)(main) floor datum.
- (2) Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
- (3) Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.
- (4) Field changes of dimension and detail.
- (5) Details not on original Contract Drawings.

F. Applications for progress payments will not be approved if the as-built/record drawings are not kept current on a weekly basis. Project inspector must concur that record documents are current on a weekly basis and before progress payments are made.

4. OPERATION AND MAINTENANCE DATA

A. Prepare 2 sets comprised of 8-1/2 x 11 inch text pages bound in capacity expansion binders with durable plastic covers identified with printed title "OPERATION AND MAINTENANCE INSTRUCTIONS," title of project, and subject matter of binder when multiple binders are required. Prepare a printed Table of Contents for each volume, with each produce or system description identified. Internally subdivide the binder contents with permanent page dividers, logically organized as described below, with tab titles clearly printed under reinforced laminated plastic tabs:

Part 1: Directory, listing names, addresses, and telephone numbers of Architect/Engineer, Contractor, subcontractors, and major equipment suppliers.

Part 2: Operation and maintenance instructions, arranged by system and subdivided by specification section. For each category, identify names, addresses, and telephone numbers of subcontractors and suppliers. Identify the following:

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- (1) Significant design criteria.
- (2) List of equipment.
- (3) Parts list for each component.
- (4) Operating instructions.
- (5) Maintenance instructions for equipment and systems.
- (6) Maintenance instructions for finishes, including recommended cleaning methods and materials and special precautions identifying detrimental agents.

Part 3: Project documents and certificates, including the following:

- (1) Shop drawings and product data.
- (2) Air and water balance reports.
- (3) Certificates.
- (4) Photocopies of warranties.

B. Submit one copy of complete volumes in final form 15 days prior to final inspection. This copy will be returned after final inspection, with the VOC comments. Revise content of documents as required prior to final submittal.

C. Submit 2 volumes prior to final Application for Payment.

5. **WARRANTIES**

A. Furnish warranty certification and copies of warranties. Warranties submitted without warranty certification will not be accepted.

(1) *Warranty Certification:* Written certification from the warrantor that invoices for installation, service and supplies is in effect.

B. Prepare printed Table of Contents and assemble warranty certifications and warranty copies in a binder with a durable plastic cover.

C. Deliver the binder to the VOC prior to final Application for Payment.

D. For items of Work delayed beyond the date of Substantial Completion, provide updated submitted within 10 days after acceptance, indicating date of acceptance as start of warranty period.

E. Applications for final payment will not be approved until the warranty certification and warranty documents are delivered to the VOC.

AS-BUILT/RECORD DRAWINGS

1. **GENERAL**

A. Engineer and Contractor shall be responsible for each page of the as-built/record drawings, which shall bear the name, date and original signature of the general contractor responsible for the Work

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and the name, date, original signature and seal of the registered land surveyor or registered professional engineer who provided the horizontal and vertical dimensions and elevations on the as-built/record drawings. The signatures shall certify that the as-built/record drawings do, in fact, reflect the true as-built or record conditions as located under the direct supervision of the registered surveyor and/or professional engineer. The drawings shall be certified using the forms provided by VOC (See the end of this section).

Upon completion of the Work and prior to dedication of utilities to the Village of Clayton (VOC) or final payment under the Contract with VOC, Engineer shall compile an electronic file (such as AutoCAD) and a reproducible mylar set of the drawings revised in accordance with all addenda and all requirements with respect to the drawings specified herein. As-built or record information shall be recorded by both Engineer and Contractor and kept current during the progress of the Work. Electronic files shall be printed on mylar and shall conform to the requirements of this subsection.

B. Upon completion of the Work, Engineer and Contractor shall deliver the revised electronic file and the mylar as-built/record drawings and two complete prints made from the as-built/record drawings to VOC and accompany the submittal with a transmittal letter, in duplicate, showing:

- (1) Date of submittal
- (2) Project title and number
- (3) Contractor's name and address
- (4) Title and number of each as-built/record drawing

Application for final payment will not be approved until the project as-built/record drawings are delivered to the VOC.

C. Prior to starting the Work, addenda items shall be posted on the drawings and specifications (it is not required that the mylars be revised at this time in accordance with the addenda).

D. In making changes to the mylars, utility lines to be changed shall be erased before new lines are drawn, notations to be changed shall be struck through and the new notations added. Lines, notations or required information not affected by addenda shall not be disturbed. The legend used on the original Project drawings shall also be used to make all necessary corrections.

E. Legibly mark the drawings and change the mylars to record the following:

(1) Each document shall be labeled as-built/record drawing in 1" high printed letters and shall be on 24" x 36" mylar and shall be accompanied by the revised electronic files on CD-ROM or DVD computer disks.

(2) All changes in the Work made by addenda.

(3) All potable water and wastewater facilities shall be located in two directions. One location shall be referenced perpendicular to the permanent structures. The other location shall be parallel to the item being located and shall be referenced to the right-of-way line. Centerline intersections of pavement, curb, sidewalk or utility structures are not acceptable unless these are in turn referenced to permanent structures. Centerline of right-of-way may be used for reference in lieu of the right-of-way line. Elevations where required shall be referenced to NGVD 1929

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benchmark or USC&GS Data. As-built/record survey information shall be referenced to at least two state plane coordinates NAD 83 or latest version. The location and elevation of the benchmark shall be shown on the as-built/record drawings.

(4) As-built/record drawings shall show physical dimensioning of the separation of water mains at crossings with sanitary sewers, storm drains and sanitary force mains. This can be shown by elevations of each pipe, or a measurement taken between the pipes. As-built/record drawings shall also show measurement of vertical and horizontal separation in areas where water mains are parallel to sanitary sewers, storm drains, or sanitary force mains. The vertical separation shall also be shown for the full length of the parallel run.

(5) Special detail drawings will be required where installations were not as shown on the Project drawings due to the field conditions or where required for clarity.

(6) As-built/record drawings shall contain a vicinity map and street names shall be shown for all streets and rights-of-way.

(7) The minimum scale requirements on the drawings are as follows:

(a) Pump Station Site:	5 (horizontal scale)
(b) Plan & Profile:	40 (20, horizontal scale)
	4 (2, vertical scale)
(c) Plan (only):	60 (40, horizontal scale)

2. **SPECIFIC REQUIREMENTS**

A. POTABLE WATER:

(1) The location of all new valves, fittings, fire hydrants, casings and points of connection to the existing system shall be referenced in two perpendicular directions.

(2) Horizontal dimensions shall be to the nearest tenth of a foot and vertical dimensions shall be to the nearest hundredth of a foot.

(3) Horizontal locations will be required perpendicular from the water line to the permanent structure at 100' intervals.

(4) Elevations on the main and finished grade will also be required at all pipe dead-ends, intersections, size changes, points of connection to existing system, at fittings, at intersections of pipe, at 500' intervals, and where the standard depth of cover is not provided.

B. GRAVITY SEWER:

(1) The location of all new piping, wyes, tees, manholes, cleanouts and points of connection to the existing system shall be referenced in two perpendicular directions.

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(2) Horizontal dimensions shall be to the nearest tenth of a foot and vertical dimensions shall be to the nearest hundredth of a foot.

(3) Runs of gravity sewers shall be identified (i.e., 300' of 8" PVC SDR35 at S=.004).

(4) Elevations shall be given for the north rim of the top of all manhole covers and all manhole inverts.

(5) Elevations on the service piping and finished grade will be required at the property line established by the VOC.

(6) Location of the end of sewer services shall be given to the plug and be located from the side property line.

(7) Manhole types shall be identified (i.e., Type "A", "B", etc.).

C. FORCE MAINS:

(1) The location of new valves, fittings, casings and points of connection to the existing system shall be referenced in two perpendicular directions.

(2) Horizontal dimensions shall be to the nearest tenth of a foot and vertical dimensions shall be to the nearest hundredth of a foot.

(3) Horizontal locations will be required perpendicular from the sewer line to the permanent structure at 100' intervals.

(4) Elevations on the main and finished grade will be required at points of connection to the existing system at fittings, 500' intervals, at high points, and where the standard depth of cover is not provided.

D. PUMPING STATIONS:

(1) Wet well size and location shall be indicated and located from permanent structures.

(2) All lines within the pump station site shall be located from permanent structures.

(3) Elevations shall be indicated at inverts, wet well top and bottom, and at ground adjacent to wet well. All types and sizes of new lines and fittings shall be indicated.

(4) All schedules that show pump, motor and electrical data shall be corrected to show the as-built/record condition and submitted with the pump station drawings.

(5) Within the pump station boundaries the following shall be located horizontally: pump-out, water spigot, wet well, control panel, bends, fittings, manholes, generator and fuel tank, transformer, irrigation system, fence, auxiliary electrical enclosures, odor control equipment, and safety equipment, as per site plan.

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The Engineer shall provide a boundary survey of the pump station site showing above and below ground improvements. This survey shall be prepared by a registered land surveyor in accordance with New York Statutes. The boundary survey shall be submitted with as-built/record drawings prior to final payment.

(6) All new buried electrical conduits shall be labeled and located to permanent structures including electrical service from utility transformer to station meter and to control panel.

E. STORM DRAIN:

(1) The location of all new piping, wyes, tees, manholes, inlets, cleanouts and points of connection to the existing system shall be referenced in two perpendicular directions.

(2) Horizontal dimensions shall be to the nearest tenth of a foot and vertical dimensions shall be to the nearest hundredth of a foot.

(3) Runs of storm sewers shall be identified (i.e., 300' of 15" RCP at S=.004).

(4) Elevations shall be given for the north rim of the top of all manhole covers and inlets and catch basins and all manhole, inlet and catch basin inverts.

(5) Storm drain, manhole, inlet and catch basin types shall be identified.

F. As-built/record drawings for buildings shall be marked to indicate any and all changes made. As-built/record drawings shall also include the installed size, elevation and location of all interior equipment, structures and concealed materials, including plumbing, electrical conduits, ducts, air and piping. The piping shall be identified as to its use.