SECTION 01000

general requirements

# GENERAL

## DEFINITIONS

### Wherever the following terms or pronouns occur in these Standard Specifications or in related documents, the intent and meaning shall be interpreted as follows:

#### **"Approved Plans"** shall mean the official plans, profiles, typical cross-sections, working drawings, detail drawings, or exact reproductions thereof, approved by the DISTRICT and other appropriate government agencies, which show the locations, character, dimensions, and details of the work required to construct the specified public improvements.

#### **"Approved Materials List"** shall mean the listing of those materials reviewed, tested, and allowed for use by the DISTRICT for installation of its facilities (which may include potable water, recycled water and sewer facilities).

#### **"Board"** shall mean the Board of Directors of the DISTRICT.

#### **"Contractor"** shall mean the independent person, firm, corporation or partnership with whom the DISTRICT or Developer contracts for the performance of the work or any part thereof covered by the Approved Plans and these Standard Specifications. Instructions or information given by the DISTRICT to the Contractor's superintendent or agent on the Project shall be considered as having been given to the Developer.

#### **“Design Guidelines”** shall mean the current version of the DISTRICT’s Standard Design Guidelines for Potable Water, Recycled Water and Sewer Facilities.

#### **"Developer"** shall mean the independent person, firm, corporation or partnership whose purpose is the development of property. The Developer shall, at all times be represented on the Project in person or by a duly designated agent (Contractor or Private Engineer). Instructions or information given by the DISTRICT to the Contractor's superintendent or agent on the Project shall be considered as having been given to the Developer.

#### **"DISTRICT"** shall mean the Elsinore Valley Municipal Water DISTRICT.

##### For the unique purpose of these Standard Specifications, DISTRICT shall also refer to the DISTRICT's representative(s) acting within the scope of the particular duties entrusted to them.

##### The DISTRICT shall resolve any and all issues which may arise with regard to the quality or acceptability of approved materials furnished or work performed, to the manner of performance and rate of progress of the work and shall answer all questions relating to the interpretation of the Standard Drawings, the Approved Plans, the job specifications, if any, and these Standard Specifications as well as the acceptable fulfillment of the Contract on the part of the Developer.

#### **"DISTRICT Engineer"** or **"Engineer"** shall mean the DISTRICT’s Chief Engineer, or the DISTRICT’s General Manager, acting either directly or through properly authorized agents, such agents acting severally within the scope of the particular duties entrusted to them.

#### **"Engineer of Work"** or **“Private Engineer”** shall mean a Civil Engineer or Structural Engineer registered or licensed in California who is qualified to act as an agent of the Developer in preparing plans for facilities to be approved and accepted by the DISTRICT and incorporated thereafter into the DISTRICT’s system.

#### **"Inspector"** shall mean the DISTRICT’s authorized agent whose duties shall include those defined elsewhere within these Standard Specifications, but who shall not direct the work being performed.

#### “**Owner”** shall mean one of two things:

##### For CIP projects, **“Owner”** shall mean the Elsinore Valley Municipal Water District.

##### For development projects, **“Owner”** shall mean the developer until the project has been handed over to the DISTRICT, after project closeout.

#### **"Project"** or the **“Work"** shall mean the public improvement to be constructed in whole or part within the boundaries of the DISTRICT.

#### **"Standard Drawings"** shall mean the standard details issued by the DISTRICT for construction of DISTRICT facilities.

#### **“Standard Specifications**” shall mean the standard specifications issues by the DISTRICT for construction of DISTRICT facilities.

## LICENSE

### The Contractor installing any new facilities or performing work on existing facilities within the DISTRICT shall possess, prior to the start of the Project, a License, defined by the latest edition of the California Contractor's License Law and Reference Book, as:

#### Class A or C-34 for water pipeline installations.

#### Class A or C-42 for sewer pipeline installations.

#### Class A for major water and sewer facilities such as pump stations, reservoirs, and treatment plants.

### Any Contractor possessing a license other than a Class A must receive written approval from the DISTRICT prior to initiating the work.

## OPERATIONS IN PUBLIC RIGHT-OF-WAY

### Work in public right-of-way shall be done in accordance with the requirements of the permit issued by the public agency in whose right-of-way the work is located, in addition to the requirements of the Approved Plans and Standard Specifications. If a permit is not required, the work shall conform to the standards of the public agency involved in addition to conforming to the Approved Plans and Standard Specifications.

## STORM WATER POLLUTION PREVENTION PLAN (SWPPP) REQUIREMENTS

### The Contractor shall abide by the conditions of the Regional Water Quality Control Board, General Construction Activity Storm Water Permit and the project Storm Water Pollution Prevention Plan (SWPPP).

## REFERENCE STANDARDS

### The reference standards of the organizations listed below form a part of these Standard Specifications to the extent referenced and are referred to in the text by the basic designation only. Reference shall be made to the latest edition of said standards unless otherwise stated.

|  |  |  |
| --- | --- | --- |
| AASHTO | **AGENCY**  American Association | **ADDRESS**  444 N. Capital St. |
|  | of State Highway and Transportation Officials | Washington, D.C. 20004 |
| ACI | American Concrete Institute | P.O. Box 19150 Detroit, MI 48219 |
| ANSI | American National Standards Institute | 1430 Broadway  New York, NY 10018 |
| ASA | American Standards Association | 70 East 45th Street New York, NY 10017 |
| ASME | American Society of Mechanical Engineers | 345 E. 47th Street New York, NY 10017 |
| ASTM | American Society for Testing and Materials | 1916 Race Street  Philadelphia, PA 19103 |
| AWS | American Welding Society | 550 N.W. Le Jeune Rd. Miami, FL 33135 |
| AWWA | American Water  Works Association, Inc. | 6666 W. Quincy Ave. Denver, CO 80235 |
| CAL/ | State of California | 1006 Fourth Street |
| OSHA | Occupational Safety and Health Administration | Sacramento, CA 95814 |
| CFR | Code of Federal Regulations | Office of Federal Register National Archives Administration Washington, D.C. 20408 |
| CRSI | Concrete Reinforcing Steel Institute | 228 N. La Salle St. Chicago, IL 60601 |
| CSLB | Contractors State License Board | 9821 Business Park Dr. Sacramento, CA 95827 |
| NACE | National Association of Corrosion Engineers | 1440 South Creek Dr. Houston, TX 77084 |
| NFPA | National Fire Protection Agency | Battery March Park Quincy, MA 02269 |

NSF National Sanitation P.O. Box 130140 Foundation Ann Arbor, MI 48113

SSPC Steel Structures 4400 Fifth Ave.

Painting Council Pittsburgh, PA 1521

SSPWC Standard Specifications for Joint Cooperative Committee Public Works Construction c/o Associated General

(Greenbook) Contractors of California

1255 Corporate Center Dr., Suite 100 Monterey Park, CA 91754

UBC Uniform Building Code International Conference of Building Officials

5360 Workman Mill Rd. Whittier, CA 90601

UNI-B Uni-Bell PVC Pipe Association 2655 Villa Creek Dr., Ste. 155

Dallas, TX 75234

UPC Uniform Plumbing Code International Conference of

Plumbing and Mechanical Officials 20001 E. Walnut Dr. South Walnut, CA 91789

## ORDER OF PRECEDENCE

### The Approved Plans, together with these Standard Specifications, shall govern the work to be done. Anything indicated in the Standard Specifications but not shown on the Approved Plans, or shown on the Approved Plans but not indicated in the Standard Specifications, shall be of like effect as though shown or indicated in both. In resolving inconsistencies between the Approved Plans and the various sections of the Standard Specifications, the order of precedence shall be as follows:

#### Technical Specifications (Standard Specifications Sections 2 through 16)

#### Appendices to the Standard Specifications

#### Standard Drawings

#### Approved Plans

#### Approved Materials Lists

#### General Specifications (Standard Specifications Section 1)

#### Reference Standards

### Figure dimensions on drawings shall take precedence over scale dimensions. Detailed drawings shall take precedence over general drawings. The Contractor shall immediately notify the DISTRICT if any conflict, inconsistency, omission, error, or ambiguity is discovered between the Approved Plans and the various sections of the Standard Specifications.

# MATERIALS (not used)

# EXECUTION

## EXAMINATION OF APPROVED PLANS, SPECIFICATIONS, AND SITE

### The Contractor shall carefully examine the site of the proposed work, the Approved Drawings, the Specifications, and all other pertinent documents. Contractor shall be satisfied as to the character, quality, and quantities of work to be furnished, and as to the requirements of the Approved Plans and these Standard Specifications. The DISTRICT will not be liable for any loss sustained by the Contractor as a result of any variance between conditions as shown on the Approved Plans and the actual conditions revealed during the progress of the work or otherwise.

### Ascertain suitability of native soil for backfill before submitting bid. If native soil is found to be unsuitable, provide suitable material for meeting compaction requirements at no additional cost to Owner.

### Items furnished shall be capable of fulfilling their intended purpose in environment in which they are installed. Allow for local temperature extremes, climactic conditions and corrosive environments where necessary to ensure proper functioning of furnished products.

## QUALITY OF WORK AND MATERIALS

### The work shall be performed in a thorough, worker-like manner in accordance with the Approved Plans and these Standard Specifications. All work shall conform to the lines and grades shown on said plans.

### At least one member of the Contractor’s workforce who is thoroughly familiar with the specified requirements of work and who is completely trained and experienced in the construction skills necessary for satisfactory completion of the work shall be present at the site, directing the work, at all times.

### Adequate number of skilled workers and sufficient and appropriate equipment shall be present at the site prior to commencing daily construction operations.

### The Engineer shall inform the Contractor if any person in the employ of the Contractor fails to or refuses to comply with the requirements of these Specifications or appears to the Engineer to be incompetent or unfit, or acts in a disorderly, improper or unsafe manner. It shall be the Contractor’s responsibility to dismiss any such person from the work site or take any other action deemed appropriate by the Contractor.

### All equipment, materials, and supplies to be incorporated in the work shall be new. All equipment, material and supplies shall be produced in a good and worker-like manner. Materials to be used within the scope of work on the project shall be those listed in the current Approved Materials List. When the quality of a material, process, or article is not specifically set forth in the Approved Materials List, the Approved Plans, or the Specifications, the best available quality of the material, process, or article shall be provided.

### The Contractor may offer as substitution any material, process, or article substantially equal or better in every respect to that so indicated or specified; provided, however, that if the material, process, or article offered by the Contractor is not, in the opinion of the DISTRICT, substantially equal or better in every respect to that specified, then the Contractor must furnish the material, process, or article specified or one that in the opinion of the DISTRICT is substantially equal or better in every respect.

### Carefully lay out work in advance to minimize cutting, channeling, chasing or drilling of structural pads or elements. Cuts, channeling, drilling, or welding required to accommodate mechanical or electrical equipment shall be reviewed in advance with DISTRICT. Do not begin such work until notified by DISTRICT. Repair damage to structures, piping equipment or finishes using skilled workers of appropriate trades.

### Relocations or adjustment of existing facilities needed to facilitate construction must be approved in writing by the DISTRICT and subsequently relocated or adjusted by the Contractor as directed. If existing items are lost or damaged during construction, replace with new items of equal or better quality.

### Make field measurements needed to fabricate and install Work before ordering or beginning work. Make minor changes in alignments and dimensions as needed to remedy or avoid utilities and structural conflicts.

### Install products according to manufacturer's installation and warranty requirements. Manufacturers requirements for installation, application, connection, erection, maintenance, operating, cleaning, conditioning and startup of products shall be strictly followed.

### Products shall be installed by the Contractor at the location shown on the Plans and Submittals.

### Install products to tolerances recommended by manufacturer. Unless otherwise shown, install equipment true and level, using precision gauges and levels.

### Refer variances between manufacturer's installation instructions and Contract Documents to the DISTRICT.

### Construct walls, floors and flatwork plumb, straight, level, square and true. Acceptable deviations from plumb or level shall not exceed 1/4 inch in any 32 inch section. Flatwork shall not deviate from plan elevation by more than 3/4 inch at any location.

### Welds, unless otherwise shown, shall be continuous, watertight, and conforming to Structural Welding Code of American Welding Society. Welds shall be free of sharp points or edges.

### Exposed surfaces shall be finished in appearance. Grind smooth exposed welds. Round or chamfer corners of exposed structural shapes for personnel protection.

### Roofing systems shall be leak free, demonstrated by a 1-hour hose test.

### Prime and paint exposed surfaces of ferrous products, piping, and conduit except for stainless steel or galvanized or sherardized surfaces or unless otherwise shown. Clean painted surfaces and touch up bare or marred spots with finish to match factory finish.

### Paint and coat in workmanlike manner so as to produce an even film of uniform thickness. Pay attention to edges, angles, flanges, corners, crevices, and joints to ensure that they have been thoroughly cleaned and that they receive specified thickness of paint or coating. Finished surfaces shall be free from runs, drops, ridges, waves, shiners, laps, brush marks, and variations in color, texture and finish. The finish shall be so complete that addition of another coat would not increase the finish. Apply coats so as to produce film of uniform thickness.

### Repair damage to work that is not cause for rejection.

### Repair, correct or replace Work failing tests or inspection. Repeat tests until results satisfy specifications. Repair damages resulting from tests.

### Furnish mounts, guides, bearing plates, flanges, anchor and attachment bolts and screws, saddles, supports, pads and skids necessary to securely mount products and equipment.

### Tighten bolts to manufacturers' specifications using torque wrenches. Unless otherwise directed, use lubricant such as Copperkote when making up bolts.

### Manufacturer's instructions and warranty requirements for installation, application, connection, erection, maintenance, operating, cleaning and conditioning of products shall be strictly followed.

## MATERIALS

### All materials shall be new and unused, of the quality defined in these Standard Specifications, selected from the Approved Materials List, and approved by the DISTRICT Engineer. All materials to be used within a specific project and intended for equivalent uses shall be identical as to manufacturer and model number. Materials not identical as to manufacturer and model number to those approved by the DISTRICT Engineer, materials that are damaged, or materials that are otherwise unacceptable to the DISTRICT Engineer shall be rejected and immediately removed from the job site.

### All materials shall be of the makes and models tested and approved for use. Selections shall be made from the current Approved Materials List. It is the Contractor’s responsibility to verify that materials received for the job conform to the current Approved Materials List.

### Products on the Approved Materials List may be disqualified at any time if the quality of the product is no longer judged as acceptable by the Engineer or if a higher-quality product becomes available.

### Job-specific approval of materials not shown on the Approved Materials List is solely at the discretion of the DISTRICT Engineer, and materials so approved shall not be construed as approved for general use. For job-specific consideration of materials not shown on the Approved Materials List, the shop drawing procedures outlined in the standard specifications shall be followed.

### Products and workmanship shall match Contractor's submittals as reviewed by DISTRICT's Representative.

### Connections and mountings required to install products shall comply with connections and mountings shown in the Contract Documents and Submittals on a location-specific basis. Do not assume that approval of connections or mountings at a specific location constitutes approval of same at all locations.

### Materials and materials sources shall be reviewed by DISTRICT at least three days before use of materials in Work. However, information for materials and materials sources shall be submitted in accordance with Section 01300 of these Specifications.

### Conform to federal, state and local regulations governing VOC content, percentage solids by volume, and other paint and solvent properties.

### Similar items on project shall be products of same manufacturer.

### Corresponding parts of identical products shall be interchangeable.

### Materials for a complete paint or sealant system, including primer, finish coats, thinners, cleaners and drying agents, and other additives shall be the end products of one manufacturer to ensure product compatibility and unit responsibility.

### Design and fabrication of products shall ensure products withstand stresses and loads which may occur during testing, installation, start-up and normal operation.

## DELIVERY, STORAGE AND HANDLING

### Deliver products to jobsite in manufacturer's original, unopened, labeled packaging. Tag or label packages as needed to identify contents and name of the equipment.

### Only products of approved manufacturers shall be delivered and stored at the site.

### Store materials in a protected area at a temperature between 35°F and 110°F.

### Store products so as to preserve their quality and fitness for the Work. All products and equipment to be incorporated in the Work shall be available for prompt inspection. Contractor shall be responsible for damage or loss to products until Final Acceptance.

### Protect products against moisture, extreme temperatures, dust, debris, tampering, vandalism, ultraviolet radiation, or damage from improper handling, storage, or exposure to adverse elements. Protect exposed metals from rust and corrosion even though they will be sandblasted or otherwise cleaned before painting.

### Openings on valves and equipment shall be covered, plugged or capped.

### Stringing of pipe along right of way shall be done in a manner that will not interfere with free passage of vehicles and shall only be allowed if approved by the agency having jurisdiction.

### Store items not designed for outdoor exposure off ground and under cover.

### Handle products with care and using proper equipment according to manufacturer's recommendations. Lift large heavy items only at points designated by manufacturer. Do not drop, drag, bump or handle products in manner that causes bruises, cracks, scratches or other damage. Use padded slings and hooks for lifting as needed to prevent damage. Improper handling shall be cause to reject mishandled products.

### Inspect each product item for damage, defects, completeness and correct operation before installing.

### Notify DISTRICT in writing if delivered or stored product is damaged. Exterior surfaces of delivered items shall be in perfect unblemished condition. Do not repair damaged products without prior written approval.

### Maintain records for DISTRICT's review of deliveries to show Contractor's order number, purchase order number and equipment number. Include labeling or shipping tag in records.

## HOURS OF WORK

### CONTRACTOR shall conduct all Work in accordance with the provisions as directed by the local Jurisdiction that the project is located in.

### Exceptions to this Work schedule shall be only as approved in writing by the said Jurisdiction.

### CONTRACTOR shall obtain special permission from City and DISTRICT to work on City or DISTRICT holidays.

### If the hours of work specified on the CONTRACTOR’S approved Traffic Control Plan are in conflict with the regular working hours of 7:00 AM and 5:00 PM, then the more restrictive hours shall apply.

## CONTRACTOR WORK AREA

### The use of the project area will not be available beyond the limits of the project site as identified on the drawings or in accordance with approved traffic control permits. The CONTRACTOR must operate entirely within the limits of the project site. No equipment or materials may be parked or stockpiled outside the project site or CONTRACTOR staging areas. The CONTRACTOR is responsible for locating and securing legal storage and staging areas. The CONTRACTOR shall provide a storage and staging plan to the DISTRICT, including written permission from legal owner of property stating they are allowing the CONTRACTOR to use their property.

### It shall be understood that responsibility for protection and safekeeping of equipment and materials on or near the site will be entirely that of the CONTRACTOR and that no claim shall be made against the DISTRICT or authorized representatives by reason of any act. It shall be further understood that should any occasion arise necessitating access to the sites occupied by these stored material or equipment, the Engineer shall direct the CONTRACTOR owning or responsible for the stored materials and equipment to immediately move the same. No materials or equipment may be placed upon the property of the DISTRICT other than the designated areas on the Drawings unless the DISTRICT has agreed to the location contemplated by the CONTRACTOR to be used for storage.

## INDEMNIFICATION

### CONTRACTOR hereby releases and agrees to indemnify, defend, hold harmless the DISTRICT for any and all damage to persons or property or wrongful death regardless of whether or not such claim, damage, loss or expense is caused in whole or in part by the negligence, active or passive, of the DISTRICT, excepting only the sole negligence of DISTRICT to the fullest extent permitted by law. Such indemnification shall extend to all claims, demands, actions, or liability for injuries, death or damages occurring after completion of the project, as well as during the work’s progress. CONTRACTOR further agrees that it shall accomplish the above at its own cost, expense and risk exclusive of and regardless of any applicable insurance policy or position taken by any insurance company regarding coverage.

### CONTRACTOR shall defend, indemnify and hold the DISTRICT, harmless against any and all claims by any parties arising from, or related to, any and all damages, including legal costs and attorney’s fees, resulting from interference with, interruption of, damage to, or any and all injuries which result from damage caused to subsurface installation, which is unforeseen, excepting only the sole negligence of DISTRICT to the fullest extent permitted by law.

## JOB SAFETY

### CONTRACTOR acknowledges responsibility for job-site safety and acknowledges that the Engineer will not have any such responsibility. To the fullest extent permitted by law the CONTRACTOR shall indemnify, defend and hold harmless DISTRICT from and against all claims, damages, losses and expenses, including but not limited to attorney fees and claim costs, arising out of or resulting from performance of work by the CONTRACTOR, its subcontractors, or their agents and employees, which results in damage to persons or property including wrongful death regardless of whether or not such claim, damage, loss or expense is caused in whole or in part by the negligence, active or passive, of DISTRICT, excepting only the sole negligence of DISTRICT.

### All necessary machinery guards, railings, and other protective devices shall be provided as specified and/or required by the State of California Division of Industrial Safety and the Occupational Safety and Health Administration. It is accepted that all fabricators, electrical and machinery manufacturers and other equipment suppliers are conversant with such regulations and they shall be responsible for the industrial safety aspects of such equipment. All equipment shall comply with all rules and regulations of the Safety Orders of the State of California Division of Industrial Safety and all local building, plumbing, and electrical codes and ordinances. Safety guards shall be easily removed to permit inspection, removal and repair of the moving parts.

## INSPECTION

### Notify Engineer of time and place of shop tests five working days before they begin. Complete manufacturing operations, checks, adjustments, and tests before factory inspection.

### The Engineer will inspect products after delivery and throughout construction process. Products will be subject to rejection at any time on account of failure to meet Contract Documents even though samples may have been accepted as satisfactory at place of manufacture.

### Before backfilling, request inspection by the Engineer to verify proper installation of buried work.

### Before finishing, request inspection by the Engineer to verify that no surfaces to receive product have defects or errors which could result in poor or potentially defective application or cause latent defects in workmanship.

## FIELD QUALITY CONTROL

### Maintain complete set of Contract Documents at jobsite field office or superintendent's truck at all times.

### Frequency of sampling and testing shall be as shown and shall be performed at such other times as necessary to document contract compliance.

### Notify the Engineer and regulating authorities three days before field tests.

### Perform field tests in presence of the Engineer who will record results.

### Repair damage to work that is not cause for rejection.

### Repair, correct or replace work failing tests or inspection. Repeat tests until results satisfy specifications. Repair damages resulting from tests.

## TESTING LABORATORY SERVICES

### Where required by these specifications, the DISTRICT will hire an independent laboratory to perform testing and certify results. The Contractor shall provide labor, products, tools, instruments, water, and power as directed for sampling for required tests.

### Tests of products shall follow commonly recognized standards of national technical organizations and specified sampling and testing methods.

### The DISTRICT shall pay for all passing tests, the contractor shall pay for all failing tests, for quality assurance testing unless otherwise shown.

### DISTRICT may test representative samples of each type and size of product furnished. Failure of samples to pass tests will be deemed sufficient cause to reject entire lot delivered.

## CONSTRUCTION STAKING AND PRESERVATION OF MONUMENTS

### Staking of the various public improvements required shall be performed by the Contractor's surveyor. Generally, stakes for alignment and grade shall be set at 25’ intervals. The survey shall conform to the lines, grades, and dimensions shown on the Approved Plans and shall be conducted by a surveyor licensed in the State of California. The DISTRICT shall give an account of the adequacy, readability, and frequency of the stakes provided and shall comment on any remedies required.

### The Contractor shall preserve all monuments, benchmarks, survey marks, and stakes. In case of their removal or destruction by Contractor or its employees, agents or subcontractors, the Contractor shall be liable for the cost of their replacement.

## ENVIRONMENTAL CONTROL

### The Contractor shall abide by all applicable local, state, and federal regulations, and by the conditions of the Regional Water Quality Control Board.

### The Contractor shall provide effective measures where necessary to prevent operations from producing dust in an amount damaging to property or causing a nuisance as determined by the DISTRICT. The Contractor shall be responsible for any damage due to dust originating from its operations.

### The Contractor shall anticipate and correct any erosion problem arising from its operations.

## PROTECTION OF EXISTING STRUCTURES

### Underground Structures:

#### The CONTRACTOR shall call USA Dig Alert at 811 a minimum of forty-eight (48) hours prior to any excavation. The CONTRACTOR shall adhere to all USA Dig Alert requirements.

#### Underground structures are defined to include, but not be limited to, all sewer, water, gas, and other piping, and manholes, chambers, electrical conduits, tunnels, telecommunications, and other existing subsurface work located within or adjacent to the limits of the work.

#### Prior to any excavation in the vicinity of any existing underground facilities, including all water, sewer, storm drain, gas, petroleum products or other pipelines; all buried electric power, communications, or television cables; all traffic signal and street lighting facilities; and all roadway and state highway rights-of-way the CONTRACTOR shall notify the respective authorities representing the owners or agencies responsible for such facilities not less than 3 days nor more than 7 days prior to excavation so that a representative of said owners or agencies can locate the utilities and be present during such work if they so desire.

#### The CONTRACTOR shall explore ahead of its trenching and excavation work and shall uncover all obstructing underground structures sufficiently to determine their location, to prevent damage to them and to prevent interruption to the services which such structures provide. If CONTRACTOR damages an underground structure, the CONTRACTOR shall restore it to original condition at the CONTRACTOR’s expense.

#### Maintaining in Service: All oil and gasoline pipelines, power, and telephone or the communication cable ducts, gas and water mains, irrigation lines, sewer lines, storm drain lines, poles, and overhead power and communication wires and cables encountered along the line of the work shall remain continuously in service during all operations under the Contract, unless other arrangements satisfactory to the DISTRICT are made with the owner of said pipelines, duct, main, irrigation line, sewer, storm drain, pole, or wire or cable. The CONTRACTOR shall be responsible for and shall repair all damage due to its operations, and the provisions of this Section shall not be abated even in the event such damage occurs after backfilling or is not discovered until after completion of the backfilling.

#### Necessary changes in the location of the work may be made by DISTRICT to avoid unanticipated underground structures.

#### Where the proper completion of the work requires the temporary or permanent removal and/or relocation of an existing utility or other improvement which is indicated, the CONTRACTOR shall remove and, without unnecessary delay, temporarily replace or relocate such utility or improvement in a manner satisfactory to the DISTRICT and the owner of the facility. In all cases of such temporary removal or relocation, restoration to former location shall be accomplished by the CONTRACTOR in a manner that will restore or replace the utility or improvement as nearly as possible to its former locations and to as good or better condition than found prior to removal.

### Surface Structures:

#### Surface structures are defined as all existing buildings, structures and other facilities at or above the ground surface. Included with such structures are their foundations or any extension below the surface. Surface structures include, but are not limited to, buildings, tanks, walls, bridges, roads, dams, channels, open drainage, piping, poles, wires, posts, signs, markers, curbs, gutters, walks and all other facilities that are visible at or above the ground surface.

### Protection of Underground and Surface Structures:

#### The CONTRACTOR shall sustain in their places and protect from direct or indirect injury all underground and surface structures located within or adjacent to the limits of the work. Such sustaining and supporting shall be done carefully and as required by the party owning or controlling such structure. Before proceeding with the work of sustaining and supporting such structure, CONTRACTOR shall satisfy the DISTRICT that the methods and procedures to be used have been approved by the party owning same.

#### The CONTRACTOR shall assume all risks attending the presence or proximity of all underground and surface structures within or adjacent to the limits of the work. CONTRACTOR shall be responsible for all damage and expense for direct or indirect injury caused by its work to any structure. CONTRACTOR shall repair immediately all damage caused by its work, to the satisfaction of the owner of the damaged structure.

### All other existing surface facilities, including but not limited to, guard rails, posts, guard cables, signs, poles, markers, gutters, and curbs which are temporarily removed to facilitate installation of the work shall be replaced and restored to their original condition at CONTRACTOR'S expense.

## Connections to existing facilities

### Perform all construction necessary to complete connections and tie-ins to existing facilities under DISTRICT observation.

### Keep existing facilities in operation, unless otherwise specifically permitted in these Specifications or approved by the DISTRICT.

### CONTRACTOR shall perform all construction activities so as to avoid interference with operations of the facility and the work of others.

### CONTRACTOR shall provide sub-surface investigations for locating and field verifying all existing piping, structures and equipment affected by the work. All sub-surface investigations shall be performed by the CONTRACTOR at no additional cost to the DISTRICT. Delays in the work, as a result of insufficient sub surface investigations, will be solely the CONTRACTOR’S responsibility. No time extensions will be allowed for work that is delayed as a result of insufficient sub-surface investigations and field verification.

### Insofar as possible, all equipment shall be tested and in operating condition before the final tie-ins are made to connect equipment to the existing facility.

### CONTRACTOR shall carefully coordinate all work and schedules and shall provide DISTRICT written requests for all shutdowns in advance of the proposed shutdown for review and approval by the DISTRICT in accordance with DISTRICT System Shutdown Request procedures.

### Submit detailed schedule of proposed connections, disconnections, and reconnections, including laterals, listing sequence and durations of all activities including shutdowns and tie-ins. The detailed schedule must be submitted by the CONTRACTOR and approved by the DISTRICT prior to submitting System Shutdown Request(s).

## PROTECTION OF LANDSCAPING

### The Contractor shall be responsible for the protection of all trees, shrubs, fences, and other landscape items adjacent to or within the work area, unless specific removals are indicated on the Approved Plans.

### In the event of damage to landscape items, including the thickness of topsoil, the Contractor shall replace the damaged items in kind, in a manner satisfactory to the DISTRICT and the Developer.

### When pipelines are proposed within planted or otherwise improved areas in public or private easements, the Contractor shall restore such areas to original condition after completion of the work.

### When pipelines are proposed within unimproved areas, the ground surface shall be dressed smooth to the contour of the original ground and left in a neat, presentable condition, free of cleared vegetation, rubbish and other construction wastes. Rocks and clumps that cannot be readily covered by spreading shall be hauled away and disposed of by the Contractor.

### Unimproved areas disturbed during construction of the pipeline shall be hydro seeded in accordance with these Standard Specifications.

## PROTECTION OF PAVEMENT SURFACES

### The CONTRACTOR shall exercise all necessary precautions so as not to damage any existing pavement surfaces. All paved areas including asphaltic concrete berms cut or damaged during construction shall be restored or replaced in accordance with the standard specifications.

## PUBLIC UTILITIES

### In case it should be necessary to relocate or temporarily maintain the property of any public utility or any other property, and it is understood that the cost of such relocation or temporary maintenance is not required to be borne by the owner of the utility or property, the Contractor shall bear all expenses incidental to the removal or temporary maintenance of such property in a manner satisfactory to said owner. It is understood that in such cases, the utility or property owner has the option of doing such work with his or her own forces or permitting the work to be performed by the Contractor.

### The right is reserved to the State, County, City, DISTRICT, or utility owners to enter at any time upon any street, alley, right of way or easement for the purpose of making changes for maintenance or repairs to their property necessitated by the Contractor's work.

## UTILITIES CROSSING WATER, RECYCLED WATER OR SEWER FACILITIES

### Wherever new utilities cross under or over water, recycled water or sewer facilities, the minimum vertical separation shall be 300mm (12”) unless otherwise approved by the DISTRICT Engineer. All new utilities crossing under or over water, recycled water or sewer facilities shall remain exposed until inspected and approved by the DISTRICT Engineer. Wherever new utilities cross under or over water, recycled water or sewer facilities, backfill and compaction within the limits of the water, recycled water, or sewer facility trench width shall be in strict conformance with the backfill and compaction requirements specified herein.

## HORIZONTAL SEPARATION OF UTILITIES PARALLELING WATER, RECYCLED WATER OR SEWER FACILITIES

### Wherever new utilities parallel water, recycled water or sewer facilities, the minimum horizontal separation shall be such that 900mm (36”) of undisturbed soil separates adjacent trench edges, unless otherwise approved by the DISTRICT Engineer.

## WATER AND POWER FOR CONSTRUCTION PURPOSES

### Water for construction purposes:

#### All water used on the project shall be obtained from DISTRICT’s sources using a construction meter.

#### The construction meter and service connection shall be obtained from the DISTRICT. The Contractor shall make arrangements with the DISTRICT for payment of the deposit and installation of the meter.

#### The Contractor shall pay for all construction water used in accordance with DISTRICT’s Rules and Regulations.

#### Damage caused to the meter will be charged to the Contractor.

#### Water for construction purposes outside the DISTRICT’s service area shall be obtained from the DISTRICT within which the project lies.

### Contractor shall make all arrangements for electrical power required during construction.

## HAZARDOUS WASTE AND UNKNOWN PHYSICAL CONDITIONS

### If conditions listed below are found during construction, or if any other conditions are found during construction that may be detrimental to the DISTRICT's facilities being constructed, or to the health and safety of the public, the Contractor shall promptly notify the DISTRICT.

### Material that the Contractor or Engineer believes may be hazardous waste, as defined in Section 25117 of the Health and Safety Code and is thus required to be removed to a Class I, Class II, or Class III disposal site in accordance with the provisions of existing law. If such material is discovered, Contractor shall immediately cease work and shall not disturb the job site except as required to protect public safety.

### Subsurface or latent physical conditions at the site differing from those indicated.

### Unknown physical conditions at the site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in work of the character provided in the Contract.

### The Contractor shall promptly inform the DISTRICT of any such conditions found during construction. The DISTRICT shall investigate the conditions, and if it finds that the conditions do materially differ from those shown or expected, or do involve material that may be hazardous waste, Contractor shall cease work in the impacted area. If material that may be hazardous waste is discovered, the Developer shall ensure that the appropriate government agencies are contacted prior to any further work being performed and that a solution is implemented.

## WORK TO BE DONE

### The work to be done consists of furnishing all materials, equipment, labor and all other items necessary for the construction and installation of a complete facility as shown on the Approved Plans and in accordance with these Standard Specifications. In some instances, the DISTRICT may furnish certain materials and services, which will be expressly called out on the Approved Plans.

### The DISTRICT’s approval of the plans prepared by a Private Engineer denotes agreement with the plans as prepared and is not an acceptance of responsibility as to accuracy. The Private Engineer shall be responsible for any errors, coordination with other agencies/utilities and interpretation of plans. The intent is that the completed Work shall be in general conformance with the Approved Plans and in accordance with the requirements of these Standard Specifications.

## CHANGES TO THE WORK

### If the DISTRICT, due to conditions that change during the progress of the work, determines it impracticable for the Contractor to strictly comply with the Approved Plans or the Standard Specifications, the DISTRICT may prescribe a modification of requirements. The DISTRICT may at any time during the life of the project, by written order, make such changes as it may find necessary in the design, line, grade, form, location, dimensions, plan or material of any part of the work originally specified or shown on the Approved Plans.

### If such changes increase the cost of material, or work to be performed, the difference in cost shall be borne by the Developer. All changes so performed shall be at no cost to the DISTRICT.

### The DISTRICT shall provide written authorization for all changes to the work.

### The following procedure shall be followed for revisions or changes to the Approved Plans:

#### Prints showing proposed changes shall be submitted to the DISTRICT for review and approval.

#### If the changes will require an increase in bond amount, plans will be held until a new estimate has been prepared and a new bond has been placed with the DISTRICT.

#### If the changes do not affect the bonding amount, as determined by the DISTRICT Engineer, the plans shall be reviewed and upon approval, the Private Engineer shall be notified to make the corrections on the original drawings. A print of the revised plan shall then be submitted to the DISTRICT for final checking and approval. A signature block shall be added to the plans to indicate approval of changes made.

#### After these steps have been taken, the Contractor may proceed with the revised construction.

## RECORD DRAWINGS

### During the course of the work, the Contractor shall keep accurate legible, and updated records of the changes made to the work. The changes may be dictated by field conditions, unknown obstructions, design oversight, or other circumstances determined to be in the best interest of the DISTRICT.

### At the end of the project, the Contractor shall provide the DISTRICT with two sets of prints, with all changes redlined. In addition to the field changes, the correct location of all water and sewer services and driveway centerlines with stations shall be indicated. The DISTRICT's field representative shall verify that all changes have been included. All revisions will be incorporated.

### In showing changes in the Work, or added Work, use the same legends used on the Contract Drawings. Show locations and elevations to the same level of accuracy as the original Contract Documents. Tie dimensions to a permanent point.

### As-built drawings shall incorporate addenda, supplementary drawings, working drawings, change orders and clarifications. As-built drawings shall incorporate survey notes, field notes and system demonstration logs.

### The DISTRICT's Engineering Department will send one of the redlined sets to the Engineer, who will incorporate the changes onto the original mylars, prior to accepting them as final record drawings of the work.

### The Engineer will provide the DISTRICT with the following:

#### Original mylars if on DISTRICT title block

#### Reproducible reverse mylars if not on DISTRICT title block

#### Electronic data per DISTRICT requirements

### Only photo mylars or digital mylars of 4 or 5 mil thickness will be accepted. Mylars must be made from the original mylars and not from interim mylars or sepias. Each sheet shall incorporate a "Record Drawing" box signed by the Engineer of Work.

## CLEANING DURING CONSTRUCTION

### Requirements of Regulatory Agencies:

#### In addition to the requirements herein, the CONTRACTOR shall maintain the cleanliness of the work and surrounding premises within the work limits so as to comply with federal, state, and local fire and safety laws, ordinances, codes and regulations.

#### The CONTRACTOR shall comply with all federal, state and local anti-pollution laws, ordinances, codes and regulations when disposing of waste materials, debris and rubbish.

### Scheduling of Cleaning and Disposal Operations:

#### The CONTRACTOR shall schedule all clean-up and disposal operations so that dust, wash water or other contaminants generated during such operations do not damage or mar painted or finished surfaces.

#### The CONTRACTOR shall prevent accumulation of dust, dirt, debris, rubbish and waste materials on or within the work or on the premises surrounding the work.

### Waste Disposal:

#### The CONTRACTOR shall legally dispose of all waste materials, surplus materials, debris and rubbish off the site.

#### The CONTRACTOR shall not burn or bury rubbish and waste materials on site.

#### The CONTRACTOR shall not dispose of volatile or hazardous wastes such as mineral spirits, oil, or paint thinner in storm or sanitary drains.

#### The CONTRACTOR shall not discharge wastes into streams or waterways.

### Materials:

#### The CONTRACTOR shall use only cleaning materials recommended by manufacturer of surface to be cleaned.

#### The CONTRACTOR shall use each type of cleaning material on only those surfaces recommended by the cleaning material manufacturer.

#### The CONTRACTOR shall use only materials, which will not create hazards to health or property.

### Maintain areas covered by Contract, adjacent properties, and public access roads. Keep these areas free from waste, debris and rubbish caused by construction.

### Sweep streets daily using self-loading motor sweeper with spray nozzles. If streets are kept clean, a lesser frequency may be approved by DISTRICT.

### Conduct cleaning and disposal to comply with local ordinances and antipollution laws. Contractor shall obtain a NPDES permit as required by the DISTRICT Standard Specifications and Drawings.

### Provide containers for collection and disposal of waste materials, debris, and rubbish.

### Clean public access roads to site. Remove material falling from haul trucks.

### Clean up and Dust Control. Throughout all phases of construction, including suspension of work, and until final acceptance, the CONTRACTOR shall keep the site clean and free from rubbish and debris. The CONTRACTOR shall also abate dust nuisance by cleaning, sweeping and sprinkling with water, or other means as necessary. The use of water resulting in mud on public streets will not be permitted as a substitute for sweeping or other methods.

### The CONTRACTOR shall furnish and operate a motorized vacuum sweeper with spray nozzles at least once each workday for the purposes of keeping paved areas acceptably clean wherever construction activity, including restoration, is incomplete.

## FINAL CLEANING

### Restore construction areas to preconstruction conditions after completion of Work and prior to final inspection.

### Repair pavement, roads, sod, and all other areas affected by construction operations and restore them to original condition or to minimum condition specified by the DISTRICT.

### Restore lines and grades of areas used for earthwork storage.

### Clean, sweep, and wash Work and equipment including finishes.

### Remove grease, dust, dirt, stains, labels, fingerprints and foreign materials from sight-exposed interior and exterior finished surfaces. Polish surfaces so designated.

### Repair, patch and touch up marred surfaces to specified finish to match adjacent surfaces.

### Broom-clean paved surfaces.

### Rake-clean other surfaces of grounds.

### Remove from DISTRICT's property temporary structures and materials, equipment and appurtenances not required as part of, or appurtenant to, completed Work.

### After Work is complete, loose concrete, lumber, wire, aggregate or rock piles, reinforcing bars, rubbish, debris and materials not incorporated in Work shall be removed from the site. Remove excess pointing mortar materials and other debris within pipes.

### The CONTRACTOR shall maintain cleaning until acceptance and occupation by DISTRICT.

## PROJECT CLOSEOUT AND FINAL ACCEPTANCE

### The DISTRICT’s Board of Directors or designee shall be responsible for final acceptance of all projects. The following items of work shall be completed prior to final acceptance by DISTRICT:

#### The project has been completed in accordance with the Approved Plans, the job specifications and these Standard Specifications.

#### Final inspection has been performed by DISTRICT. Any “punch list” items generated by preliminary inspection shall have been completed.

#### Record drawings reflecting any changes to the project have been submitted to the DISTRICT’s Inspection Department in accordance with these Standard Specifications.

#### A Soils Test Report has been submitted to the DISTRICT in accordance with Section 02223 of these Standard Specifications.

#### All costs and fees relevant to the work have been paid to DISTRICT by the Developer.

#### All aspects of the Construction Agreement have been completed to the satisfaction of the DISTRICT.

### Valve box cover elevations are not shown on drawings. Determine and set cover elevations in field so that finished rim elevations are flush with finished pavement where directed by DISTRICT.

### Spare parts required shall be delivered in manufacturer's original containers labeled to completely describe contents and equipment for which it is furnished.

### Following final acceptance by the DISTRICT, the DISTRICT will prepare a Notice of Completion and will have such Notice recorded by the County Recorder.

## WARRANTY

### One year warranty inspection shall be conducted prior to release of bonds. Any work failing to comply with specifications or performance standards stated in manufacturers submittals or printed promotional literature will at that time be tagged as defective and scheduled for repair. Repair all defective work in strict accordance with the Contract Documents and to the satisfaction of the DISTRICT.

#### DISTRICT will establish inspection date and will notify Contractor at least 30 days in advance.

#### Warranty Inspection Report will be prepared by DISTRICT and delivered to Contractor. It will set forth the number and type of failures observed and the names of persons making the inspection.

#### Repairs shall proceed promptly. Upon completion of inspection and receipt of Inspection Report, DISTRICT will establish a date for Contractor to proceed with remedial Work. Delay on the part of the Contractor to proceed with remedial work on schedule shall constitute a breach of this Contract. In such case, DISTRICT may proceed to have defects remedied as outlined in Contract Documents.

### Costs of warranty inspection and repair shall be borne by Contractor, who shall include an appropriate amount for testing and repair in his bid. No additional allowance will be paid by DISTRICT for Warranty Inspection and repairs.

### The work shall be guaranteed against failure due to defective materials or workmanship for a period of one (1) year from the recording date of the Notice of Completion. The one-year warranty period shall not, in any way, affect the liability of any party for latent or patent defects allowed for under State law.

### All repairs shall be made pursuant to the Development Agreement with the DISTRICT and in accordance with the DISTRICT’s Rules and Regulations and current Standard Specifications.

## FIVE-YEAR PRODUCT WARRANTIES

### Five (5) year warranty shall be furnished for the following:

#### Manhole linings

#### Reservoirs

#### Reservoir coatings and liners

#### Roofing

### Five (5) year warranty shall cover parts, labor and prompt service for repair of defects, performance failure or damage due to normal wear and tear, due to infrequent maintenance or due to any cause other than acts of God or intentional or active and extreme abuse of the product. The warranty period shall extend 5 years beyond final acceptance of completed contract by Owner.

## WARRANTY INSPECTION

### The DISTRICT will perform a warranty inspection prior to the expiration of the one-year warranty period. The CONTRACTOR will be notified in writing of any deficiencies revealed by this inspection. The warranty bond will not be released until the required repairs are completed. If the warranty inspection is satisfactory, the DISTRICT will release the warranty bond at the end of the one-year warranty period.

# END OF SECTION