

CITY OF LATHROP

Department of Public Works

Design & Construction Standards



2022

TABLE OF CONTENTS

SECTION 10 PARK IMPROVEMENTS STANDARDS	10-3
10-1 GENERAL.....	10-3
10-2 MANUFACTURER’S WARRANTIES.....	10-3
10-3 GUARANTEES.....	10-3
10-4 MEASUREMENT OF QUANTITIES	10-3
10-5 CONDITIONS	10-3
10-6 SUBMITTALS	10-4
10-7 SUBSTITUTIONS.....	10-5
10-8 WARRANTY	10-5
10-9 MATERIALS.....	10-5
10-10 LAYOUT	10-6
10-11 SITE FURNISHINGS.....	10-6
10-12 PLAY EQUIPMENT	10-8
10-13 CONCRETE FOOTINGS.....	10-9
10-14 PARK WATER SYSTEMS.....	10-9
10-15 PARK IRRIGATION SYSTEMS	10-10
10-16 PARK SANITARY SEWERS.....	10-10
10-17 PARK STORM DRAINAGE	10-11
10-18 PARK ELECTRICAL AND LIGHTING.....	10-11
10-19 ENCLOSURES.....	10-11
10-20 CLEANING	10-11

SECTION 10 PARK IMPROVEMENTS STANDARDS

10-1 GENERAL

These general requirements provide conditions for City park improvements including site furnishings, play equipment, and water play/ splash play equipment.

Park improvements shall consist of supplying and installing park hardscape and furnishings as shown on the approved Plans, and as directed by the City Engineer.

10-2 MANUFACTURER'S WARRANTIES

Manufacturer's warranties, guarantees, instruction sheets and parts lists furnished with articles or material incorporated in the work, shall be delivered to the City Engineer prior to acceptance of the product.

10-3 GUARANTEES

All park improvements shall be guaranteed for a period of, at least, one (1) year from date of project acceptance. Any additional guarantee period, as provided under manufacturer's warranties, shall be honored by the Contractor. Should any trouble develop within the time specified above due to faulty workmanship or materials, the problem shall be corrected by the Contractor, without expense to the City.

10-4 MEASUREMENT OF QUANTITIES

Measurement of Quantities shall be determined by the City Engineer based on delivery tags presented at time of delivery. The Contractor shall give twenty-four (24) hours' notice of all deliveries, dates and times. Materials delivered when the City Engineer is not present, depending on verifiability, at City Engineer's discretion, may not be counted.

10-5 CONDITIONS

A. Existing Conditions:

1. Prior to work, the Contractor shall be thoroughly familiar with any surveys and investigative reports directly related to the work to be performed.
2. Contractor shall examine physical conditions at the site, document all conditions differing from those indicated in the contract documents, and inform the City immediately.

B. Site Protection:

1. Trees, shrubs and other materials which are to remain on the site shall be fully protected by constructing a fence around the items to be protected or other method approved by the City Engineer.
2. Refer to Section 8.5-C, Landscape and Planting, of these Standards for additional tree protection requirements.

C. Underground Utilities:

1. Contractor shall notify UNDERGROUND SERVICE ALERT (USA North) at “811” or (800) 227-2600 at least 48 hours prior to commencing any excavation.
2. Contractor shall relocate or remove existing utilities as shown on the plans or as directed by the City Engineer. Where utilities are marked, careful hand excavation shall be done to determine exact alignment and depth prior to starting excavations within marked areas.

D. Safety:

1. Contractor shall at all times exercise necessary precautions to provide for the protection of the public and employees.
2. Adequate barricades, flashers, fences, signs, and markers or lights shall be installed in all hazardous locations including, but not limited to, open excavations and areas of pedestrian and vehicular traffic. All situations requiring traffic control shall conform to the appropriate Caltrans Traffic Control Manuals and the Caltrans Manual of Uniform Traffic Control Devices.
3. All hazardous materials including, but not limited to, gasoline, solvents, and other similar materials shall be stored in a safe and protected manner, in accordance with City and health regulations.

E. Equipment:

1. Contractor shall provide and maintain all equipment to perform the work.

10-6 SUBMITTALS

- A. Modifications and Revisions:** Contractor shall submit proposed modifications and revisions prior to performing work.

- B. As-Built (Record) Drawings: Upon final completion of the work, the Contractor shall furnish accurate, up-to-date RECORD drawings that include as-built conditions and any and all changes from the original plans made during the installation of the improvements.
- C. Operation Manuals, Maintenance Instructions and Warranties: Prior to final acceptance of work, the Contractor shall provide to the City three copies of manufacturers' written operation and maintenance instructions for all equipment installed within the public right-of-way or within areas that the City may be responsible for maintenance and operation.
- D. Catalog Cuts: The Contractor shall submit catalog cuts for each pre-manufactured items.
- E. Shop Drawings: The Contractor shall submit shop drawings for all custom, modified, or shop fabricated item and where required elsewhere on the approved Plans or in these specifications.
- F. Finish samples: The contractor shall supply the City Engineer with samples of all colors and finishes for approval prior to ordering the item.
- G. Playground Safety Inspection certification as described below.

10-7 SUBSTITUTIONS

Substitutions of any item shall not be permitted without prior written approval of the City Engineer. Contractor shall provide all product data, cut sheets, and shop drawings necessary to demonstrate the suitability of a proposed substitution.

10-8 WARRANTY

- A. Contractor shall be responsible for defective materials and faulty workmanship at all stages of the work in progress. Upon relinquishing care, custody, and control of the improvements, the Contractor shall be responsible for defective materials and faulty workmanship for a minimum period of, at least, one year for all park improvements and all other work.
- B. Any damages to site improvements and facilities under the Contractor's control shall be corrected prior to acceptance of said improvements.

10-9 MATERIALS

Materials shall conform to these Specifications and the approved plans.

10-10 LAYOUT

Prior to commencing installation of park improvements, Contractor shall stake layout of the improvements, including use zones of all play equipment, and request review by the City Engineer to determine if any adjustments to the layout shown on the drawings is necessary.

10-11 SITE FURNISHINGS

- A.** Benches: shall include a back, arm rests, and be a minimum six feet in length with a baked-on polyester powder-coat finish as manufactured by DuMor, Inc., Wabash Valley or approved equal.
- B.** Picnic Tables: shall have a baked-on polyester powder-coat or plastisol coated finish as manufactured by DuMor, Inc., Wabash Valley or approved equal.
- C.** All picnic tables shall provide at least one space compliant with current Americans with Disabilities Act Accessibility Guidelines (ADAAG) and California Title 24 requirements for wheelchair access and seating.
 - 1. Accessible Picnic Tables – All picnic tables shall meet accessibility Guidelines for Outdoor Developed Areas, states that in newly constructed picnic facilities that contain two or fewer picnic tables, each picnic table shall be accessible. Where picnic facilities contain more than two picnic tables, at least 20 percent but not less than two of the picnic tables shall be accessible. Where picnic tables are altered or added, the requirements shall apply only to the picnic tables that are altered or added until the number of accessible picnic tables complies with the minimum number required for new construction. For example, if you have only two picnic tables within a picnic facility, both picnic tables must be accessible; if you have four picnic tables within a picnic facility, two must be accessible, and if you have 24 units within a picnic facility, five must be accessible.
- D.** Trash Receptacles/Recycling Receptacles:
 - 1. 32-gallon nominal capacity with liner for ease of collecting and emptying collected materials
 - 2. Top or cover designed to keep out rain and other weather elements
 - 3. Black or other color for trash and blue color for recycling
 - 4. Trash and recycling containers to be located in pairs

5. The overall “recycling message” should be highly visible:
 - a. Must display the recycling “chasing arrow” symbol at least 10 inches in diameter on two sides of the container.
 - b. Must include “Recyclables Only” and “No Food Waste” labels in lettering at least 2 inches high on two sides of the container and legible from a 10-yard distance.
 - c. Signage must have graffiti-resistant coating.
 6. Baked-on finish, such as, fusion epoxy powder coated finish or plastisol coated finish (DuMor, Inc., Wabash Valley) or approved equal.
 7. Match existing container style in historic or downtown districts or other areas as designated by the City Engineer.
- E. Drinking Fountains: shall be ADA compliant hi-lo fountains (2 fountains and basins in combination) Model #440 including optional pet fountain as manufactured by Most Dependable Fountains or approved equal.
- F. Bike Racks: shall be Model #125 and #130, manufactured by DuMor Inc., or approved equal. Number of loops (bike parking spaces) to be defined on the plans. A minimum of 2 loops shall be provided for any installation.
- G. Barbecue (Single): shall be steel, embedment mounted, #21/22 series, by DuMor Inc. or model # 200-X by Little Tikes or approved equal.
- H. Barbecue (Group): shall be steel, embedment mounted, #24 series, by DuMor or model # 210-X by Little Tikes or approved equal.
- I. Dog Waste Disposal Station: shall be green aluminum model #1003-L by Dogipot or approved equal.
- J. Park Sign: shall be by Outdoor Creations or approved equal. Sign to include City logo and park name. Colors to be approved by City Engineer.
- K. Basketball Goals: shall be manufactured by BSN Sports, Tomark Sports, Douglas or approved equal.
- L. Soccer Goals: shall be permanent or semi-permanent (removable) with the ability to anchor into natural turf or synthetic turf as manufactured by BSN Sports, Tomark Sports, Douglas or approved equal. Powder coat color shall be white.

All site furnishings shall be installed in accordance with manufacturer's instructions.

10-12 PLAY EQUIPMENT

All materials and methods shall, at a minimum, conform to the latest version of California Code of Regulations: Title 22 – Social Security, Division 4 – Environmental Health, Chapter 22 – Safety Regulations for Playgrounds.

In addition, all materials and methods must meet the following standards:

- A. Consumer Product Safety Commission “Handbook for Public Playground Safety”, current version
- B. ASTM F1487 “Standard Consumer Safety Performance Specifications for Playground Equipment for Public Use”, current version
- C. ASTM F-1292 “Specifications for Impact Attenuation of Surface Systems Under and Around Playground Equipment”, current version
- D. CFR Part 1191 “Americans with Disabilities Act Disability Guidelines for buildings and Facilities”, Section 15.6 “Play Areas”, current version

All components of play equipment shall be certified by the International Play Equipment Manufacturers Association (IPEMA). Contractor shall provide Certificate of Compliance with IPEMA to City Engineer prior to purchase of items.

Prior to purchase of equipment, Contractor shall submit for approval a plan view of play equipment at an appropriate, legible scale indicating overall dimensions with all components labeled and all deck heights indicated. Additionally, Contractor shall submit for approval a complete list of components including a description of component, quantity, finish and color.

- E. Play Equipment Manufacturers: Approved play equipment manufacturers include:
 - 1. Miracle Recreation Equipment
 - 2. Landscape Structures
 - 3. Play World Systems,
 - 4. or equivalent

Contractor shall assemble and install playground equipment in compliance with the written instructions of the manufacturer. Equipment shall be installed by or under

the direct supervision of an individual who is authorized by the manufacturer to assemble and install the equipment.

Prior to its first use, the playground equipment shall be inspected by a Certified Playground Safety Inspector who shall certify in writing that the equipment, insofar as it can be seen without disassembly or excavation of the surfacing, is in compliance with ASTM F-1487-98 and CPSC Handbook Publication number 325.

- F. Play Area Surfacing: Play area surfacing shall be a dual layer poured-in-place system with a wearing layer upper membrane and an underlying impact attenuation cushion layer. The finished surface shall be porous and capable of being installed at varying thickness to comply with Critical Fall Height requirements of playground equipment. Play area surfacing shall be SpectraPour by Spectraturf Global Surfacing Systems or approved equal.
- G. Water Play/Splash Play Equipment: shall be recirculation system with all components and operating system provided from the same manufacturer cover under a single warranty. Equipment shall be Splashpad equipment from Vortex Aquatic Structures International Inc. or approved equal.

10-13 CONCRETE FOOTINGS

All concrete footings for site furnishings and play equipment shall be Class 2 concrete with a $\frac{3}{4}$ " minimum size aggregate, 6 sack minimum and provide 3000 psi strength at 28 days, unless otherwise approved by the City Engineer. Footings shall be in accordance with Section 90 of the latest Caltrans Standard Specifications. Add 1 lb. lamp black per cubic yard.

Footings shall be installed below finish surface. In paved areas paved surface shall be installed over footing to provide clean finished surface.

10-14 PARK WATER SYSTEMS

Park water system design shall conform to the applicable portions of Section 4, Water System Standards and Section 9, Irrigation System Standards, of these Standards, except as follows:

A. Plastic Potable Pipe

Plastic pipe for potable water systems within City parks and recreation areas and where designated on the Plans, shall be polyvinyl chloride (PVC) plastic pipe extruded from one hundred percent (100%) virgin material conforming to ASTM Designation D2241, or shall conform to Section 4, Water System Standards, for public water systems, and shall be used as noted below.

- B.** Pipe less than two inches (2") diameter shall be PVC water service per Section 4. Water Services, or, pipe less than four inches (4") diameter shall be Schedule 40 PVC with solvent welded joints.

1. Pipe four inches (4") diameter and larger shall be PVC (C900) water main per Sections 4.

C. STERILIZING POTABLE WATER LINES

Sterilization and testing of water lines for potable purposes shall conform to Section 4 Water System Standards.

D. Installation of Potable Pipe

Installation of potable pipe shall conform to the requirements for installation of public water systems as provided in Section 4, Water System Standards.

10-15 PARK IRRIGATION SYSTEMS

Park irrigation system design shall conform to the applicable portions of Section 9, Irrigation System Standards, of these Standards, except as follows:

A. ELECTRIC AUTOMATIC CONTROLLER

Automatic controllers for use on City parks shall be central control ready Calsense controller or approved equal with hydrometer in UL rated stainless steel enclosure.

B. BOOSTER PUMPS

Booster pumps for use on City parks shall be by Custom Pump and Power or approved equal.

C. Enclosures

All above grade enclosures, including controller boxes, booster pump enclosures and electric service panels shall be either anodized aluminum or stainless steel. Enclosures shall be finished (powder coated) as required.

10-16 PARK SANITARY SEWERS

Park sanitary sewer design shall conform to the applicable provisions of Section 5, Sewer System Standards, of these Standards.

10-17 PARK STORM DRAINAGE

Park storm drainage design shall conform to the applicable provisions of Section 3, Storm Drainage Standards, of these Standards.

10-18 PARK ELECTRICAL AND LIGHTING

Park electrical and lighting design shall conform with the applicable portions of Section 6, Roadway Standards, of these Standards, except as follows:

A. Light Fixtures:

Park light fixtures are not required to match City standard street light fixtures.

Park light poles shall be aluminum with a textured powder coat finish

All light fixture luminaires shall be 120 volts, IP66 rated and dark sky compliant. All safety and area lighting fixtures shall be LED.

All non-electrical hardware shall be stainless steel.

Light fixture globes shall be composed of acrylic material.

Manufacturer warranty for all lighting fixtures and poles shall be:

B. LED Fixtures: 8 years from date of acceptance.

C. Material and Workmanship: two (2) years from date of acceptance.

D. Paint/Coating: five (5) years against corrosion, peeling and fading of more than 20% of original gloss.

10-19 ENCLOSURES

All above grade enclosures, including controller boxes, booster pump enclosures and electric service panels shall be either anodized aluminum or stainless steel. Enclosures shall be finished (powder coated or painted) as required.

10-20 CLEANING

Contractor shall thoroughly clean all areas where work has occurred. Excess material, debris and rubbish shall be removed from the site.

Contractor shall take all precautions to protect completed work. Immediately repair or replaced any areas or improvements damaged during construction operations.

END OF SECTION