



Sunnyvale

CITY OF SUNNYVALE

PARK DESIGN GUIDELINES

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City of Sunnyvale Park Design Guidelines

The guidelines contained herein provide general guidance for park improvements at new parks or existing parks within the City of Sunnyvale. They have been developed in conjunction with the Park Standard Details, to provide consistency of design and efficient maintenance practices within the City of Sunnyvale. These guidelines are not meant to supersede any local municipal ordinances or state building codes but are to be used as a reference during the design process.

I. Park Design

A. General Park Design Guidelines

1. The City shall strive to promote unique and innovative design, and individual character in the design of each park site. Sites, facilities, structures, public art or landscapes of historic or cultural significance within each park shall be identified and included where possible in the park design.
2. Many existing parks have been designated a theme that establishes a unique character that is consistent with the park's activities and locations. For existing parks, the theme shall be reinforced by using characteristic details, colors, materials, and furnishings where feasible. For new parks, a new theme shall be determined and reinforced.
3. City Standard details shall be utilized within new and existing parks to create a unified park design by providing consistency of details, colors, and materials throughout the park.

B. Park Entry & Signage

1. Provide at least one main park entry for vehicles and pedestrians that creates a sense of arrival into the park.
2. Maintain separation of the vehicular entry and pedestrian entry, where possible.
3. Park entries should be located near bus stops or crosswalks, where possible.
4. Provide signage with the park name at a highly visible location near the park entry and/or along a prominent roadway.
 - a. Refer to City Standard Detail PK-11 – City Park Sign.
 - b. Any use of the Sunnyvale logo must adhere to the Brand Guidelines available on the City Website. The Sunnyvale Communications Division should be included in the review of the proposed logo use.
5. Park Rules and Park Hours signage shall be placed at or near every park entrance.
6. Identification signage shall be placed in a prominent location to allow for identification of each field, court, and picnic area, for reservation purposes.
7. Signage shall be provided at dog parks to designate separate areas for small and large dogs. This signage shall be consistent with City Standards.
 - a. Refer to City Standard Detail PK-13 – Dog Park Signage.
8. All signage shall be placed in an area where it is readily visible to park visitors (at or above eye-level) on a chain link fence or a post, but in a location that does not interfere with circulation paths or where it could block views by spectators.
9. Identification signage shall be coordinated with Parks and LRS staff.

C. Pathways and Circulation

1. A circulation system shall be designed that provides direct access to major park components including play areas, restrooms, picnic areas, and sports fields. The circulation system shall allow visitors to walk past major park components; (i.e.) visitors should not have to walk through one area to get to another.
2. As part of the circulation system, adequate access for fire, emergency and maintenance/service vehicles and equipment in parks and open space shall be provided as required by local jurisdictions.
3. Current requirements for ADA shall be adhered to.
4. At least one main path for maintenance/service vehicles shall be provided within the park circulation system design with access to all major park components where the concrete pathway is twelve feet wide. The concrete section at this path shall be designed adequately to support heavy vehicular traffic loads. These paths may also provide pedestrian access to the major use areas.
5. Trash and ash receptacles shall be placed along the path for maintenance/service vehicles to allow for ease of collection.
6. Removable bollards shall be located at select park areas to deter vehicles from entering paths designed and designated for maintenance/service vehicles.
7. Refer to City Standard Detail PK-6 – Removable Bollard w/ Ground Sleeve & Cap.
8. Secondary pedestrian walkways shall be a minimum of six to 8 feet wide, designed to accommodate pedestrian traffic traveling in one or both directions.

D. Concrete Paving

1. Concrete shall be used as the preferred paving material for all pathways.
2. Concrete pavement sections shall be determined on a case-by-case basis with input from the project geotechnical engineer.
3. Pavement sections shall be designed to reflect the anticipated load (i.e., pedestrian, light vehicular, or heavy vehicular traffic).
4. Concrete mix for all finish concrete work, including pathways, edgebands, curbs, and walls shall include a darkening agent incorporated within the mix at a rate of ¼-pound per sack of concrete.
5. For concrete used for curbs, gutters, sidewalk or driveway approaches, lampblack shall be added at the rate of 1 pint (powder) per cubic yard. Standard concrete finish shall be medium broom finish perpendicular to the direction of travel, unless identified as a special paving area.
6. Special paving areas may be used selectively in select areas such as park entries or to highlight unique park components. These special paving areas may incorporate alternate concrete colorants and/or finishes.

E. Concrete Edgebands

1. Concrete edgebands shall be used beneath all fencing and at the perimeter of play surfacing material or decomposed granite material.
2. Concrete edgebands shall be eight inches (8") wide minimum unless otherwise accepted.
3. Refer to City Standard Details:
 - a. PK-32 – 8" Concrete Edgeband with Fence
 - b. PK-33 – 12" Concrete Edgeband with Fence
 - c. PK-28 – Edgeband and Tall Curb Notes
 - d. Refer to City Standard Detail PK-34 – Rebar at Edgeband

II. Grading and Drainage

A. General Grading and Drainage Guidelines

1. Park sites should be designed to balance (cut and fill) where feasible
2. Hardscape areas should be designed to allow proper slope for runoff/drainage, either into a drainage structure or to an adjacent landscape area capable of handling runoff. Landscape areas should not be designed to drain across adjacent paved areas.
3. Hardscape and landscape areas adjacent to park buildings shall be designed to convey runoff/drainage away from the building.
4. Utilize earth forms and mounds to help define different use areas and create interest in the park. Berms and plantings need to be carefully placed to avoid hiding areas.
5. Park sites should be designed with proper means for drainage of surface and subsurface runoff, as needed, and as required by local County requirements.
6. Catch basins, and trench drains should be used in hardscape areas where surface runoff collected is required.
7. Need a reference to current C.3 requirements.

B. Catch basins

1. Catch basins should be located at the low point within the area from which they are collecting runoff.
2. A concrete collar should be built around catch basins not occurring within concrete paving.
3. Catch basins should include a bolt-down, locking lid, with a grate suitable to the surface application. Use an ADA-compliant grate where required within pedestrian areas. Catch basins should not be located within a vehicular access path.

C. Trench drains

1. Use of trench drains should be minimized as they are difficult to maintain.
2. Trench drains should include integrated cleanouts to allow for intermittent flushing as needed.
 - a. Refer to City Standard Detail PK-19 – Concrete Trench Drain and Cleanout.

D. Cleanouts

1. Cleanouts should be provided as needed in sewer and drain lines to allow for intermittent maintenance and sized to match the size of the pipe to which they are connected.
2. Refer to City Standard Details:
 - a. PK-16 – Cleanout in Hardscape/Softscape
 - b. PK-17 – Storm Drain Cleanout

E. Pathways/Paved Areas

All concrete/hardscape pathways providing pedestrian access shall be designed to meet the most current state accessibility requirements. When possible, a sloped walk (with slope under 5% longitudinally), shall be provided instead of a ramp.

F. Sports/Athletics Courts

1. Asphalt hard court surfaces shall be graded at minimum of 1.5% slope.
2. Concrete hard court surfaces shall be graded at a minimum of 1% slope.
3. Consider spectator areas when grading court sidelines; provide adequate level areas for spectator seating.

G. Synthetic Turf Playing Fields

1. Synthetic turf surfaces and subsurface drainage shall be designed with input from a civil engineer on a case-by case basis.
2. Subgrade slope shall be equal to or greater than the surface slope.
3. Do not locate (subsurface) drain inlets or cleanouts within the field of play whenever possible.

H. Landscape Areas

1. Turf areas should be used sparingly and shall be graded at a max slope of 3.5:1 for ease of mowing.
2. For swales in planted or turf area, ensure a minimum flowline slope of 2 percent.
3. Do not drain landscape areas or turf areas across a paved area.
4. Where surface runoff collection is required in landscape areas, catch basins or atrium drains may be used.
5. Landscape areas may be used to capture runoff from adjacent paved areas. Refer to current SCVURPPP C.3 Stormwater Handbook for requirements.
6. Landscape areas that allow for runoff to percolate into the soil before outfall into the stormwater system may be designated as self-retaining areas. These areas shall be sized by a qualified engineer per the C.3 Stormwater Handbook requirements.
 - a. Refer to City Standard Detail PK-24 – Catch Basin in Self-Retaining Area

I. Bioretention Areas:

1. Landscape areas that collect stormwater runoff from adjacent paved areas may designated as Bioretention Areas. These areas shall be sized by a qualified engineer per the C.3 Stormwater Handbook requirements.
 - a. Refer to City Standard Detail PK-23 - Bioretention Area
2. Where stormwater drain lines are conveyed into a landscape area designated as a bioretention area, an energy dissipater shall be installed at the daylighting location to slow down the flow of water and prevent erosion.
 - a. Refer to City Standard Detail PK-22 – Energy Dissipater

III. Landscaping

A. Site Characteristics

1. Park facilities should be designed to enhance and preserve the natural site characteristics, where appropriate, and to minimize water use and maintenance demands, pursuant to the City's Water Conservation ordinances.
2. Natural landscape features should be incorporated into landscape areas where appropriate, which include native and adapted plantings, rock or boulder groupings, and bermed landforms.

B. General Planting Guidelines

1. Promote the use of low-maintenance plant material where feasible. Select plant species that do not require regular trimming into manicured hedges. Clumping grasses or strap-leaf plants that require infrequent maintenance shall be used instead.
2. Select plant species with low water-use requirements, including native and adapted plant material suitable to the local climate where appropriate. Refer to the Water Use Classification of Landscape Species

(WUCOLS IV), provided by the California Department of Water Resources Water Use Efficiency Program.

3. Select tree, shrub, and groundcovers to provide a harmonious composition of colors, textures, and seasonal interest.
4. Use repeating groupings of tree, shrub, and groundcover species throughout the park site where appropriate.
5. Planting sizes shall be:
 - a. 15-gallon minimum for trees, unless otherwise specified
 - b. 5-gallon for major shrubs
 - c. 1 gallon for minor shrubs, vines and groundcovers
 - d. Plugs for fast growing groundcovers
 - e. Size variations shall be reviewed and approved on a case-by-case basis

C. Shrubs

1. Select shrub species appropriately with similar solar requirements, water needs, and congruent growth habits to surrounding shrubs.
2. Plant shrubs with adequate space in between to reduce crowding, avoid overgrowth onto adjacent pathways, and allow access for maintenance.
3. Higher maintenance shrubs shall be used minimally to accent important areas such as major entries or the area around the park signage.
4. The following list of plants is for reference only. This list is not meant to be all-inclusive or limited to only these plant options.

a. Berkeley Sedge	Carex praegracilis
b. Deer Grass	Muhlenbergia rigens
c. Dwarf Mat Rush	Lomandra longifolia
d. Dwarf New Zealand Flax	Phormium 'Yellow Wave'
e. Kangaroo Paw	Anigozanthos spp.
5. Shrub planting per standard detail.
 - a. Refer to City Standard Detail PK-76 – Shrub Planting with Bubbler

D. Trees

1. Provide adequate space between trees, or between trees and other vertical site improvements to minimize crowding of canopies.
2. Where space allows, provide tree grouping in groves rather than in singles or rows in equal intervals, unless the design dictates otherwise.
3. Selected trees shall be approved by the City Arborist and shall fulfill the following criteria:
 - a. Be appropriate to the site-specific environment
 - b. Tolerate local (bay mud) soil conditions
 - c. No heavy litter or lengthy dropping of leaves, fruit, or debris
 - d. Be generally disease and pest resistant
 - e. Have a deep rooting system (not shallow rooted)
 - f. Tolerate heat (i.e., not susceptible to sunburn)
4. Provide a root mitigation plan such as a root barrier panel for all tree species planted near pathways or sidewalks.
5. When providing tree cutouts within hardscape areas, provide a minimum eight-foot (8') diameter round or eight-foot (8') square cutout. When budgets allow, use decomposed granite paving.
6. Selection and placement of trees within City parks shall be reviewed and approved by the City Arborist.

7. Plant trees to buffer the street frontage, to organize and define use areas on the park site, to provide protection from wind and sun, and as a visual amenity to the park.
8. Plant flowering accent trees at park entries where possible and appropriate.
9. The following list of trees is for reference only. This list is not meant to be all-inclusive or limited to only these trees..

a. Blue Oak	Quercus douglasii
b. Brisbane Box *	Tristania conferta
c. Cajeput Tree *	Melaleuca quinquenervia
d. Catalina Ironwood	Lyonothamnus floribundus
e. Chinese Elm	Ulmus parvifolia
f. Chinese Pistache	Pistacia chinensis 'Keith Davey'
g. Coast Live Oak*	Quercus agrifolia
h. Cork Oak	Quercus suber
i. Crape Myrtle	Lagerstroemia indica 'Natchez'
j. Ginkgo	Ginkgo biloba 'Princeton Sentry'
k. Goldenrain Tree	Koelreuteria paniculata
l. Hornbeam	Carpinus betulus 'Fastigiata'
m. Jacaranda **	Jacaranda mimosifolia
n. Palo Verde	Parkinsonia florida 'Desert Museum'
o. Plum	Prunus cerasifera 'Krauter Versuvius'
p. Red Maple	Acer rubrum 'October Glory' 'Red Sunset'
q. Red Oak	Quercus rubra
r. Shumard Oak	Quercus shumardii
s. Sycamore	Platanus x. acerifolia 'Boodgood' or 'Yarwood'
t. Trident Maple	Acer buergeranum
u. Valley Oak	Quercus lobata
v. Western Redbud	Cercis occidentalis

* Evergreen

** Semi-evergreen

10. Refer to City Standard Details:

- a. PK-74 – Tree Planting and Bubbler
- b. PK-81 – Root Control Barrier Installation at Sidewalk
- c. PK-81 – Root Control Barrier Installation at Curb

E. Other Landscape Elements

1. Groundcover species shall be planted in a triangular pattern.
 - a. Refer to City Standard Detail PK-78 – Ground Cover Planting
2. Organic mulch shall be incorporated into all landscape areas, at a minimum depth of 3", to aid in soil moisture retention and to inhibit the growth of weeds.
3. Project specifications shall require fertility soil testing by an independent testing lab prior to planting and identify qualified testing labs. The recommendations for soil amendments prescribed by the testing lab shall be followed by the installing contractor.

IV. Site Fixtures and Furnishings

A. General Site Fixture and Furnishings Guidelines

1. Park fixtures shall be selected for durability and ease of maintenance, while also contributing to a pleasing and cohesive design aesthetic.

2. Select furniture, which provides compatible colors with the overall park theme, play components, and other site features, where applicable. Colors are subject to approval by the City.
- B. Drinking fountains/water bottle filler station
1. Drinking fountains to be conveniently located near children's play areas, group picnic areas, restrooms, and sports facilities.
 2. Each park shall have at least 1 ADA accessible drinking fountain containing both high and low mounted fixtures.
 3. Locate drinking fountains off the major pathways, adjacent to, but not directly within primary path of travel. When drinking fountains are set within an area designated as a main path of travel, drinking fountain safety rails shall be installed adjacent to the drinking fountain.
 - a. Refer to City Standard Detail PK-4 – Drinking Fountain with Bottle Filler and Pet Station
 4. New drinking fountain waste lines shall be connected directly to the sanitary sewer system.
 5. When the location of the drinking fountain does not permit this connection, a drywell shall be used. Drywells should include a cleanout accessible from the surface to allow for intermittent observation and/or emptying as needed.
 - a. Refer to City Standard Detail PK-20 – Drywell
- C. Trash Receptacles/Enclosures:
1. Trash receptacles shall be included in quantities and locations to suit the demand of each park.
 2. Provide an adequate number of trash receptacles near main entries, parking lots, play areas, picnic areas, seating areas, sports field spectator seating, restrooms, parking lots, and other high-use areas.
 3. Place trash receptacles adjacent to, but set back from, main pathways for ease of maintenance vehicle access.
 - a. Refer to City Standard Detail PK-2 - Garbage Receptacle.
 4. Where trash collection is required at a large scale, a trash enclosure should be provided.
 5. Trash enclosures should be sized adequately to contain and conceal the anticipated number of bins or dumpsters required for each park.
 6. Place trash enclosures in a location that is readily accessible for sanitation vehicles from major roadways, such as within a primary parking lot.
 7. Do not place trash enclosures close to picnic areas or playgrounds where foul smells may be noticed.
 - a. Refer to City of Sunnyvale Environmental Services Department for additional trash enclosure requirements.
- D. Picnic Areas
1. Picnic areas shall be distributed appropriately throughout the park site close to major park components including play areas, restrooms, and sports fields.
 2. Where feasible, picnic areas shall be located where shade is available, either beneath a new/existing tree canopy, or beneath a shade structure.
 3. At group picnic areas, arrange picnic tables in clusters with easily visible identification placards to assist in group picnic reservations.
 4. Picnic table numbering shall be coordinated with Library and Recreation Services staff.

5. Picnic table clusters shall contain adequate quantities of table, grills, trash, and ash receptacles as needed to suit the anticipated visitor usage.
6. Where electrical access is deemed necessary at picnic areas, a bollard receptacle shall be used which offers controlled access to electrical outlets. Where feasible, at least one bollard receptacle shall be provided at each picnic area.
 - a. Refer to City Standard Detail PK-9 – Bollard Receptacle
7. Provide a minimum of one accessible picnic table per picnic table cluster, per ADA and Title 24 Standards, on an accessible surface path to ensure access by those in wheelchairs. Ensure that at least one side of the table is open with four-foot (4') clearance between picnic tables or other obstructions.
8. Refer to City Standard Details:
 - a. PK-1A - 6' Picnic Table, Embedded Mount
 - b. PK-1B - 8' Accessible Picnic Table, Embedded Mount.

E. BBQs/Grills

1. Provide BBQs/ grills at group picnic areas where appropriate. Provide at least one grill for every two picnic table clusters.
2. Where one grill serves more than one picnic table cluster, a double grill shall be used.
3. Where one grill serves a single picnic table cluster, a single grill may be used.
4. Embedded mount grills shall be used for picnic areas set within dg paving or natural lawn areas (softscape).
5. Surface mount grills shall be used within picnic areas set within concrete areas (hardscape).
6. Provide a minimum of one ash receptacle at each group picnic area near the grill(s).
7. Refer to City Standard Details:
 - a. PK-3B – Double Grill, Surface Mount
 - b. PK-3C – Single Grill, Embedded Mount
 - c. PK-3D – Single Grill, Surface Mount
 - d. PK-3E – Double Grill, Embedded Mount
 - e. PK-7 – Ash Receptacle

F. Benches

1. Provide benches at various locations around the park such as: at the park entry, at regular intervals along the main circulation path, along the park perimeter away from the street, alone and grouped to support conversation and gathering, for viewing activities or pleasant views, and for direct supervision of children.
2. Place benches at specific facilities (play areas, tennis courts, etc.)
3. Place benches with back toward a wall, plantings, or trees to increase a sense of security.
4. Set benches back from circulation paths so that pedestrians do not disturb bench sitters.
5. Benches shall be placed to maximize shade in the summer and sun in the winter.
6. Refer to City Standard Details:
 - a. PK-1C - 6' Park Bench, Surface Mount
 - b. PK-1D - 6' Park Bench, Embedded Mount

G. Bike Racks

1. Bike Racks shall be provided near park and building entries where appropriate to allow bicycles to be parked and locked.
 2. Bike racks shall be set in groupings deemed appropriate for the anticipated demand of each park.
 3. Refer to City Standard Detail PK-5 - Bike Rack, Surface Mount
- H. Bollards
1. Removable Bollards shall be used to inhibit vehicular access, as needed, within the park site. Removable bollards shall be readily removable by Parks staff to allow for emergency and maintenance vehicle access as needed.
 2. Removable bollards may also be used to provide protection around electrical cabinets or mechanical equipment located near parking lots or as required by local energy and utilities providers.
 3. Refer to City Standard Detail PK-6 – Removable Bollard w/ Ground Sleeve & Cap

V. Play Areas

A. General Play Area Design Guidelines

1. Playground locations should be designed to provide unobstructed visibility by parents or caregivers to observe children. Visual barriers should be minimized to allow clear sight lines for supervision.
2. Playground equipment and design shall meet current U.S. Consumer Product Safety Commission (CPSC) guidelines and standards as set forth in the Handbook for Public Playground Safety, as intended by SB 2733; and shall meet or exceed ASTM standards.
3. Playground equipment should be selected for durability and ease of maintenance, while providing an aesthetic that is consistent with the overall park theme.
4. Playgrounds should contain separate play equipment designed for use by the following age groups.
 - a. Preschool: 2- to 5-year-olds.
 - b. Grade School: 5- to 12-year-olds.
 - c. These areas shall be separated with a buffer zone which could include a walkway, or an area with shrubs or benches.
 - d. Signage should be included that clearly identifies the intended age group for each play structure or playground area.
5. At a minimum, playgrounds shall be designed to comply with the latest requirements of the Americans with Disabilities Act (ADA) for public agencies, which include accessible elevated and ground level events requirements.
6. Where feasible, playgrounds shall be designed to be inclusive & adaptive, which integrates opportunities for visitors of all ages and abilities, offering activities and spaces for visitors with physical and/or mental disabilities.
7. Drainage for playground areas shall utilize subsurface drainage systems connected to the municipal storm drain system. Exposed surface drain inlets or cleanouts are not allowed within playground critical fall zones.
 - a. Refer to City Standard Detail PK-18 – Catch Basin Under Resilient Surfacing

B. Water Play Areas

1. Water play areas that include interactive water features may be included in the playground design, where appropriate. The source of water for this

- type of water feature shall be clean, potable (non-recycled), and have a backflow prevention device installed at its connection to the water source.
2. Water runoff from water play areas shall be conveyed via drain inlet to drainage structures connected to sewer lines.

C. Playground Surfacing

1. Playground surfacing materials shall be selected on a case-by-case basis to suit the needs of each playground and its intended user group.
2. Where possible, porous poured-in-place resilient surfacing shall be used as a resilient surface within the playground areas, and/or for use within the accessible path of travel to accessible equipment within a play area.
3. Synthetic Play Turf shall be used as a resilient surface on sloped play areas and in high traffic play areas such as a "slide zone."
4. As an alternative option, engineered wood fiber (EWF) may be used as a resilient surface within playground areas.
5. In play areas designed near or within the dripline of existing trees, porous resilient rubber surfacing shall include an open-graded aggregate base to allow tree roots access to air.
6. In play areas not designed near existing trees, or requiring separate drainage, a concrete base shall be included beneath the porous resilient surface.
7. Playground surfacing thickness shall be determined by the critical fall height of the playground equipment within each play area. Critical fall heights shall be provided by the playground equipment manufacturer.
8. Refer to City Standard Details:
 - a. PK-8A – Porous Resilient Surface with Crushed Rock Base
 - b. PK-8B – Porous Resilient Surface with Concrete Base
 - c. PK-8C - Synthetic Play Turf with Aggregate Base
 - d. PK-8D - Synthetic Play Turf with Concrete Base
 - e. PK-8E – Synthetic Play Turf and Connection

VI. Dog Parks

A. General Dog Park Design Guidelines

1. Where feasible, parks shall include separate areas designated for dogs and their owners. Inclusion of dog parks in park designs should be reviewed during the design process.
2. Incorporate shaded areas into dog parks whenever possible, either provided by existing trees, new trees, or by a shade structure.
3. Dog parks should be located on the periphery of the site, or in an area that does not require park visitors with dogs to walk past or through playgrounds or picnic areas.
4. Provide separate access for dog park visitors and maintenance staff.
5. Surfacing within dog parks shall be decomposed granite. The decomposed granite shall be contained at the edge with a wood header or concrete edgeband.
6. The dog park may be divided into two separate areas for large and small dogs. Large dogs shall be designated as those weighing over 25 lbs. Small dogs shall be designated as those weighing less than 25 lbs. Use 6' tall chain link fence for the large dog area and 42" tall fence for the small dog area. Fencing to be black vinyl chain link fence.

7. Provide additional amenities for the comfort and convenience of dogs and dog owners such as bench seating and a drinking fountain with a dog bowl.
8. Refer to City Standard Details:
 - a. PK-1C – 6' Park Bench, Surface Mount
 - b. PK-1D – 6' Park Bench, Embedded Mount
 - c. PK-4 – Drinking Fountain with Bottle Filler And Pet Station.
 - d. PK-13 - Dog Park Signage.
 - e. PK-35 – 42" Chain Link Fence.
 - f. PK-36 – 6' Tall Chain Link Fence.

VII. Synthetic Turf Athletic Fields

A. General Synthetic Turf Athletic Field Design Guidelines

1. Synthetic turf athletic fields shall be provided in parks with adequate demand for evening and year-round sports activities. While synthetic turf fields offer reduced maintenance and water-use requirements, they are not maintenance-free and do require some water for intermittent cleaning.
2. Vendor-provided training on the maintenance requirements for synthetic turf shall be incorporated into the project specifications. Grooming and sweeping equipment, and storage space for such equipment, shall be included in the design for synthetic turf athletic fields.
3. For multi-sport applications, the following vendor and product, or a product equal in quality can be used as a basis of design:
 - a. Manufacturer: FieldTurf USA
 - b. Product: 2" Vertex Prime Turf (Hybrid Monofilament Core/Classic blend)
 - c. Infill Material: Silica Sand with Granular Cork Infill
 - d. Synthetic Turf Colors:
 - e. Color for baseball/softball infield shall be "Rust"
 - f. Color for all other area shall be "Field/Summer Green"
 - g. Manufactured Porous Closed Cell Composite: "Powerbase YSR" by Brock International.
 - h. Variations in the specified system/product must be reviewed with Park/City staff during the design process.

B. Field Orientation & Striping

1. Athletic fields shall be oriented optimally for each sport to reduce solar interference during sunrise/sunset for both players and spectators.
2. Baseball/Softball – The line from home plate to the pitcher's mound shall be oriented along a E/NE axis. Alternatively, the line from home plate to the pitcher's mound may be oriented along a E/SE axis.
3. Soccer/Cricket – The long axis of the field shall be oriented North-South
4. Synthetic turf areas should be large and contiguous in shape, while including striping for those sports deemed suitable for each park. Fields should be striped for use by multiple sports, with overlapping fields, as deemed appropriate. The field surface shall remain consistent in material (turf product and infill) throughout the entire field area, regardless of the change in striping for different sports.
5. Athletic field striping shall be inlaid in turf field with contrasting colors to allow for visual clarity between different sports fields. Striping for fields deemed to take precedence over others shall be consistently inlaid on top of striping from other/adjacent fields.

6. Baseball and softball fields, where included, shall be striped with multiple base path and pitcher's mound distances within the same ballfield to suit varying league and age-group requirements.
 - a. Refer to City Standard Details:
 - i. PK-53 – Baseball Field Striping
 - ii. PK-56 – Little League/Softball Field Striping
 7. Baseball and softball fields shall be designed to utilize portable bases and home plates, and portable pitching mounds. Sleeved systems for bases and home plates may be considered but may interrupt the consistency of the surfacing for other sports.
 8. Soccer field striping for multiple age groups shall be provided.
 - a. Refer to City Standard Detail PK-60 – Soccer Field Striping (70 x 110 Yards)
 9. Cricket field and pitch striping should be provided for both youth and adult practices/matches.
 10. Cricket pitches shall be designed to utilize a portable pitch surface (mat) and portable wickets that do not require stakes to be driven into the synthetic turf surface.
 - a. Refer to City Standard Details:
 - i. PK-62 – Cricket Field Striping
 - ii. PK-63 – Cricket Pitch Striping
- C. Field Drainage
1. Drainage for synthetic turf fields shall occur via subsurface drainage, with no drain inlets, catch basins, or junction boxes exposed on the surface.
 - a. Refer to City Standard Detail PK-15 – Junction Box in Synthetic Turf
 2. Synthetic Turf field surfaces used for multiple sports should be sloped in a consistent manner from one side to the other, or diagonally across the surface. Surface slopes that consist of a crown may be used on individual fields as deemed appropriate.
 3. Perforated subdrains shall be placed intermittently within the field area and at the field perimeter, perpendicular to the surface slope.
 - a. Refer to City Standard Detail PK-26 – Perforated Subdrain in Synthetic Turf

VIII. Athletic Courts

- A. General Athletic Court Design Guidelines
 1. Athletic courts shall be located along edges of the park for maximum visibility and security.
 2. Athletic courts shall be surrounded by fencing of an adequate height deemed appropriate for each sport. Gates shall be provided to allow for adequate pedestrian and maintenance access. Refer to Section XI Fencing and Gates.
 3. Athletic courts shall consist of a durable material suited to the needs of each sport while providing ease of maintenance.
 4. Basketball courts shall be provided as deemed necessary during the design process.
 5. Tennis courts shall be provided as deemed necessary during the design process.
- B. Athletic Court Orientation & Striping

1. Athletic court orientation should be oriented optimally for each sport to reduce solar interference during sunrise/sunset for both players and spectators.
2. Basketball and Tennis courts shall be oriented with the long axis running North/South.
3. Court striping and painting shall conform to the requirements of each sports' regulatory agency.
4. Refer to City Standard Details:
 - a. PK-61 – Basketball Court Striping
 - b. PK-64 – Tennis Court Striping
 - c. PK-65 – Tennis Court Net and Posts

IX. Irrigation

A. General Irrigation Design Guidelines:

1. Park sites shall be designed to include a fully automated irrigation system.
2. Irrigation systems shall be designed for optimum durability, reduced water usage, and ease of maintenance.
3. Irrigation systems shall be designed to meet or exceed the City's Water Conservation ordinances.
4. All irrigation and valve boxes shall be appropriately labeled and have locking lids.
5. Where recycled water is being used, purple pipe shall be used, and recycled water labels shall be included at each valve. Recycled water signage shall be installed within planting areas as required.
 - a. Refer to City of Sunnyvale Standard Details for Public Works Construction, current edition.
6. Do not use drip tubing irrigation.

B. Water Meters

1. Water for the irrigation system shall be fed from a dedicated irrigation meter.
2. The water meter shall be sized to accommodate the irrigation system design and any future expansion that may be anticipated.

C. Backflow Preventers

1. A backflow preventer shall be installed next to the irrigation meter to inhibit flow back into the domestic water system.
2. Backflow preventers shall be set on a concrete pad with a locking enclosure and an insulated blanket.

D. Irrigation Controllers

1. Irrigation systems shall be operated by a programmable controller. The programmable controller shall utilize either a traditional wiring system or a two-wire system.
 - a. Refer to City Standard Detail PK-67 – Two Wire Connection
2. The irrigation controller shall be Rain Master DX3 compatible with central system communication via cellular connection (Aircard).
 - a. Refer to City Standard Detail PK-66 – Pedestal Mount Controller

E. Booster Pumps

1. An irrigation booster pump shall be installed where available water pressure is not adequate to meet the needs of the operational pressure of the irrigation system.

F. Flow Sensors

1. A flow sensor shall be installed close to the point of connection and wired to the controller, to shut off the system if leaks are detected via master valve.

- a. Refer to City Standard Detail PK-68 – Irrigation Flow Sensor Installation

G. Remote Control Valves

1. Remote control valves shall be located outside of main circulation areas, but close to maintenance for ease of access.
2. Remote control valves placed in landscape areas shall be installed in plastic valve boxes. Remote control valves placed in concrete areas shall be installed in concrete valve boxes.
3. Place remote control valves 12" from adjacent paving, where applicable.
4. Group remote control valves into manifolds where feasible and provide one quick coupling valve at each manifold.
5. Do not bury remote control valves.
6. Remote control valves shall utilize an integrated ball valve to allow for isolation of each valve for maintenance.
 - a. Preferred Manufacturer: Griswold
 - b. Preferred Model: 2000 Series (1" to 2.5")
 - c. Refer to City Standard Detail PK-69 – Remote Control Valve with Ball Valve

H. Gate Valves

1. Gate valves shall be provided at branches in the mainline to allow for isolation of sections of the irrigation system for regular maintenance.
2. Gate valve boxes shall be appropriately labeled and have locking lids.

I. Quick Coupling Valves

1. Quick coupling valves shall be located at each valve manifold for intermittent washing down of hardscape or landscape areas.
2. Quick coupling valve boxes shall be appropriately labeled and have locking lids.
3. Quick couplers should be included at non-synthetic baseball/softball fields including behind pitcher's mounds and behind home plate.
4. Quick couplers should be installed within synthetic turf fields, along the field perimeter, for intermittent washing and spot-cleaning of synthetic turf. Space quick couplers so that a 50' length hose may be used to reach the entire field perimeter.
5. Where used within athletic fields, quick coupling valves shall not be placed within the field of play.
 - a. Preferred manufacturer: Rainbird
 - b. Preferred model: 44C, 1" Valve with double swing joint
 - c. Refer to City Standard Detail PK-72 – Quick Coupling Valve
 - d. Refer to City Standard Detail PK-73 – Quick Coupling Valve in Synthetic Turf

J. Piping

1. Irrigation mainlines and lateral pipes shall be sized to accommodate the anticipated pressure and flow rate demands of the irrigation system.
2. Purple pipe shall be used for irrigation systems using recycled water.
3. Provide tracer wire and appropriately labeled marking tape in the trench above each mainline and lateral line.

K. Spray Heads and Pop-ups

1. Turf rotors shall be used for irrigation in natural lawn areas.

2. Place turf rotors 2" from adjacent paved areas, where applicable.
 3. Rotors shall be spaced to allow head-to-head coverage with an allowance for a wind factor. Refer to manufacturer's recommendations.
 - a. Preferred manufacturer: Hunter
 - b. Preferred models: I-40, I-25, and I-20
 - c. Refer to City Standard Detail PK-70 – Turf Rotor Head and Swing Joint
 4. Pop-ups shall be used in shrub and groundcover areas.
 5. Place pop-up spray heads 1" from adjacent hardscape in natural lawn areas, and 24" from adjacent hardscape in shrub areas.
 6. Pop-up height shall be determined by anticipated height of plants within area to be irrigated
 7. Pop-ups shall be spaced to allow head-to-head coverage with an allowance for a wind factor. Refer to manufacturer's recommendations.
 - a. Preferred manufacturer: Rainbird
 - b. Preferred models: 1800 Series with built-in Seal-A-Matic (SAM) Check Valve, and Pressure Regulating Spray bodies (PRS) where appropriate (4", 6", and 12" pop-up height)
- L. Shrub Bubblers
1. Shrub areas, where appropriate, shall be irrigated with shrub bubblers.
 2. Shrub bubbler areas shall contain shrubs requiring similar water requirements.
 - a. Refer to City Standard Detail PK-76 – Shrub Planting with Bubbler
- M. Tree Bubblers
1. Trees shall be irrigated with bubblers, with bubblers set inside of a bubbler well.
 2. Trees shall be grouped on irrigation valves with other trees having similar water requirements.
 3. The quantity of bubblers shall vary based on the container size of the tree.
 4. Bubblers shall be evenly spaced around the outer edge of the root ball.
 - a. Refer to City Standard Detail PK-75 – Tree Bubbler Well

X. Park Buildings/Restrooms

A. Restrooms

1. Restroom facilities shall be provided in all community and regional parks and in heavily used neighborhood parks.
2. Restrooms shall be located centrally to serve the maximum number of park users within a reasonable distance of major park components such as playgrounds, picnic areas, and sports fields.
3. Restrooms shall be located along a main path for service/maintenance vehicles, to allow for ease of access by Parks maintenance staff.

B. Building Utilities

1. Projects that are subject to Building Department review shall encourage the inclusion of adequate site design measures such as directing roof runoff to vegetated areas.
2. If rain gutters are used, minimize stormwater runoff by directing roof runoff onto vegetated areas, or by other site design measures in compliance with Provision C.3.

3. Sewer lines serving restroom buildings shall include adequate cleanouts both adjacent to the building and intermittently spaced between the restroom and the municipal connection.
 - a. Provide one two-way sanitary sewer cleanout within 10' of the restroom building.
 - b. Additional one-way sanitary sewer cleanouts shall be provided between the restroom and the municipal connection at a spacing of 50', typical.
 - c. Refer to City Standard Detail PK-25 – Sanitary Sewer Cleanout at Park Building.
 4. Restroom fixtures and finishes shall be selected for maximum durability, vandal-resistance, and ease of maintenance.
 5. For additional information, refer to City of Sunnyvale Facilities Restroom Standards (dated 2017).
- C. Closets/Storage
1. Adequate space shall be provided within park buildings for paper goods and soap storage, as well as maintenance/cleaning supplies.
 2. Park staff should be consulted during the design process to ensure adequate storage requirements are met.
- D. Lighting controls
1. Park buildings, including restrooms, shall incorporate lighting controlled by a timer that can be programmed to suit the needs of the park users and Parks staff.
 - a. Refer to City Standard Detail PK-3A – Light Controller, Wall Mount
- E. Additional Information
1. For additional information, refer to City of Sunnyvale Facilities Restroom Standards (dated 2017).

XI. Fencing & Gates

- A. General Fencing & Gate Design Recommendations
1. Fencing shall be used within the park design to provide control points for access to select areas, for ball containment of athletic fields and courts, and for perimeter containment at dog park areas.
 2. Fence and gate layout shall be reviewed and approved by City Fire Department officials. Gate widths, quantities, and placement shall be designed to meet egress requirements.
 3. Fence heights shall be selected on a case-by-case basis and shall be selected based on the intended use of adjacent park areas.
 4. All fencing shall be vinyl-coated black, as specified in Standard Details
 - a. Refer to City Standard Detail PK-29 – Fence and Gate Footing
 5. Alignment of fence fabric shall be consistent between fencing runs with varied fence heights. The face of adjacent fence posts shall be aligned so that the fence fabric maintains a continuous vertical plane, without jogs or undulations.
 - a. Refer to City Standard Detail PK-31 – Fence Alignment and Stepped Condition
- B. Fencing Height
1. 42" tall chain link fencing shall be used at the perimeter of the dog park area designated for small dogs, around the perimeter of playground areas, and at the perimeter of athletic fields not requiring taller fencing for ball containment.

2. 42" chain link fencing used at the perimeter of athletic fields shall include an optional midrail.
 - a. Refer to City Standard Detail PK-35 – 42" Chain Link Fence
3. 42" ornamental fence may be used at areas to provide an enhanced aesthetic such as near park entrances or around play areas.
 - a. Refer to City Standard Details:
 - i. PK-42 – 42" Ornamental Fence &
 - ii. PK-52 – 6' Wide x 42" Tall Ornamental Gate
4. 6' tall chain link fencing shall be used at the perimeter of the dog park area designated for large dogs.
 - a. Refer to City Standard Detail PK-36 – 6' Tall Chain Link Fence
5. 8' and 10' tall chain link fencing shall be used at the perimeter of athletic courts such as basketball and tennis courts.
6. 14' and 16' tall chain link fencing shall be used for ball containment at the perimeter of athletic fields such as along the baseline of soccer fields, or along the foul line of baseball/softball fields.
 - a. Refer to City Standard Details:
 - i. PK-39 – 14' Tall Chain Link Fence
 - ii. PK-40 – 16' Tall Chain Link Fence
7. 20' tall fencing shall be used at baseball/softball fields behind home plate to provide extra ball containment, or at the perimeter of athletic fields where additional protection from foul/errant balls is appropriate, such as playground areas, picnic areas, or parking lots.
 - a. Refer to City Standard Detail PK-41 – 20' Tall Chain Link Fence
8. Hooded chain link backstops should be installed at all baseball and softball diamonds to provide extra protection between the field of play, spectators, parking lots, and adjacent park areas.

C. Fencing Edgebands

1. All fencing shall be set within a concrete edgeband sized to accommodate the fence/gate post size.
2. Fences 42" to 10' tall shall use 8" concrete edgebands
3. Fences above 10' in height shall use 12" concrete edgebands
4. At transitions between edgeband widths, the face of the edgeband shall be continuous on the field/court side of the fence.
5. Refer to City Standard Details:
 - a. PK-32 – 8" Concrete Edgeband with Fence
 - b. PK-33 – 12" Concrete Edgeband with Fence
 - c. PK-34 – Rebar at Edgeband
 - d. PK-31 – Fence Alignment and Stepped Condition

D. Gates

1. Gates and gate hardware shall match the black finish of chain link fencing
2. Accessible gates shall be 4' wide, typ., and include a graspable gate latch and 10" kick plate.
 - a. Refer to City Standard Details:
 - i. PK-47 – 4' Wide x 42" Tall Swing Gate
 - ii. PK-48 – 4' Wide x 8' Tall Swing Gate
 - iii. PK-49 – 4' Wide X 8' Tall Swing Gate in Tall Fence
 - iv. PK-43 – Gate Padlock and Latch
3. Where maintenance access is required within an athletic field of court area, double-swing gates or sliding gates wider than 4' shall be used. At least one 20' wide sliding gate shall be provided at the perimeter of large

natural grass or synthetic turf athletic fields. Double swing gates shall include a gate drop rod between the two leaves to allow for locking in the open and closed position.

- a. Refer to City Standard Details:
 - i. PK-50 – 8' Wide x 8' Tall Double Swing Gate in Tall Fence
 - ii. PK-51 – 20' Wide x 42" Tall Sliding Gate
 - iii. PK-44 – Gate Drop Rod
4. Accessible gates also designated as egress gates shall include panic hardware with a push-bar on one side, and a graspable handle on the other side.
 - a. Refer to City Standard Detail PK-45 – Accessible Gate Lever with Panic Bar
5. Gates with panic bar hardware are designated as either secure or non-secure. Secure gates are those intended to provide a controlled access point that may be closed and locked outside of park hours, restricting access. Gates with a panic bar are considered non-secure when their sole purpose is to provide egress and are not intended to be locked or provide a control point.
 - a. Refer to City Standard Details:
 - i. PK-46A – Accessible Panic Bar and Lever (Non-Secure)
 - ii. PK-46B – Accessible Panic Bar and Lever (Secure)
6. Refer to City Standard Details for additional fence and gate information:
 - a. PK-27 – Fence and Gate Notes
 - b. PK-28 – Edgeband and Tall Curb Notes
 - c. PK-29 – Fence and Gate Footing
 - d. PK-30 – Fence and Gate Footing Schedule
 - e. PK-31 – Fence Alignment and Stepped Condition

XII. Site Electrical and Lighting

- A. General Site Electrical and Lighting Design Guidelines
 1. Parks shall be designed for night use, where deemed appropriate. Lighting shall provide for safety, security, and anticipated recreational uses during non-daylight hours.
 2. Lighting design should be optimized for maximizing visibility while limiting glare/light pollution impacts on nearby residential areas.
 3. Lighting requirements shall be determined on a case-by-case basis. An electrical engineering consultant shall review lighting requirements and provide a photometric study to determine lighting quantities and spacing.
 4. New fixtures shall be designed to use high-efficiency LED lighting sources.
 5. Where feasible, existing non-LED light fixtures should be retrofitted to LED.
 6. Where appropriate, and deemed necessary during the design process, pedestrian lighting fixtures should incorporate electrical outlets for use by park visitors.
 7. Refer to City Standard Details:
 - a. PK-10 - Pedestrian LED Light With Concrete Post
 - b. PK-14 - Pedestrian LED Light Post Footing.