



a system of play for denver

3.1 A VISION FOR DENVER

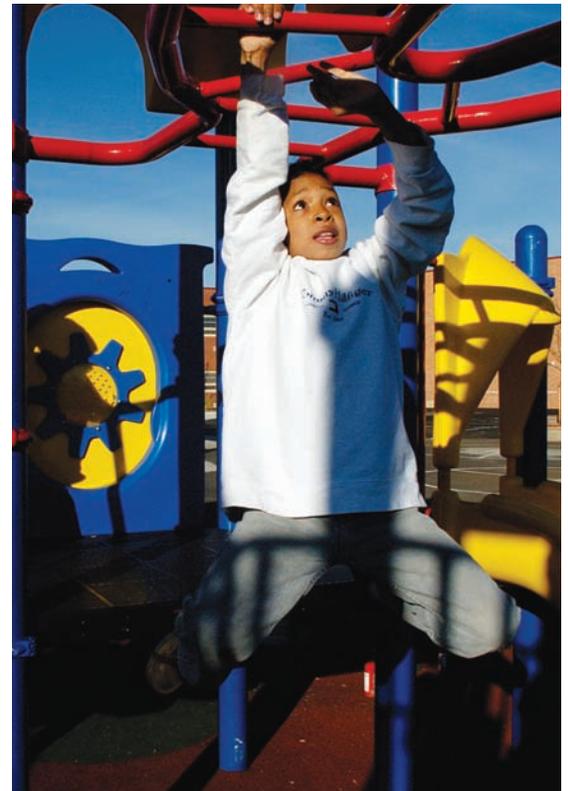
The City of Denver will design a system of play areas that provide unique play experiences distributed equitably throughout the City. These new and renovated play areas will meet the play and learning needs of Denver children as well as the needs of their caregivers and will complement Denver's Learning Landscape Schoolyard enhancement program that supplements the city's public playground system.

The Master Plan will:

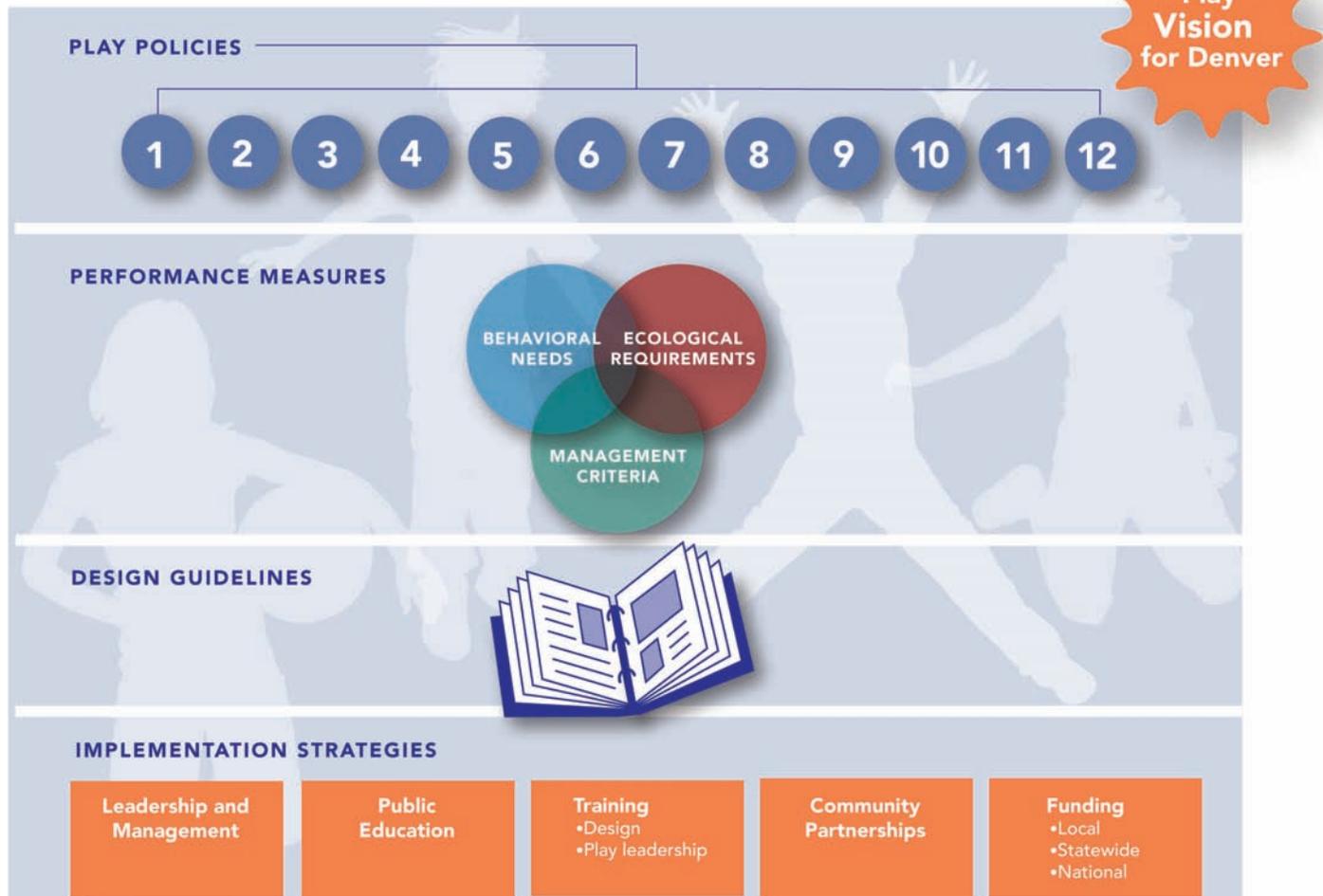
- Create a citywide system of play rather than focusing on individual play areas or parks. As identified by the project’s Advisory Council, Denver will be known as the city of the “Free Range Kid.”
- Provide age-appropriate opportunities for the physical development of a wide range of age groups, from infants and toddlers to adolescents and adults of all ages.
- Establish a standard of universal accessibility for people of all ages and abilities beyond the minimum standards for play equipment.
- Provide ample opportunities for children to interact with the natural environment and de-emphasize the sole reliance on manufactured play equipment for play in play areas.
- Take advantage of the spe-

cial features associated with each park’s location—the changes in elevation in hillside and mountain parks, the length and proximity to water in gulch parks and the connection to nature provided by the City’s growing system of Natural Areas into the play area design.

- Make each play area unique by varying its size, location and elements as well as by incorporating features that interpret the cultural and natural history of the neighborhoods that surround them.
- Reinforce Game Plan’s recommendation for an interconnected system of Green Neighborhoods.
- Respond to Denver’s changing demographics by designing a flexible system that allows for change over time.
- Involve kids in the design and construction of their play spaces. Each play area



Denver Play Area Master Plan System of Play



should have an element designed and built by local children and adolescents that allows them to take ownership of the space.

- Provide opportunities to incorporate curriculum into play areas by designing interpretive elements that vary according to the needs of local schools. Adjacencies to Learning Landscapes at Denver's

elementary schools should be considered when designing play areas.

- Designate Denver as the regional leader in providing distinctive play spaces that foster the healthy development of children and their families.

3.2 The Play Area, User Groups and Their Needs

Children of all ages, their family members and their

caregivers use play areas—alone or in groups. Each type of user has different needs and expectations of how a play area must function.

Residents of Denver have specific needs based on the highly variable climate in which they live. Dry with low humidity throughout the year, Denver receives abundant sunshine accompanied by strong radiation from the city’s mile-high altitude. This climate makes abundant shade and access to drinking water in play areas essential. Denver’s hot summers and dry autumns necessitate play areas that feature trees, vegetation, and shade structures that cool ground surfaces and play elements. It also suggests a need for water play areas. Denver’s snow season is characterized by quick-melting autumn and spring snow, with the heaviest snowfall in March and April. When combined with periods of intense sun,

A System of Play, the strategy for achieving Denver’s vision for play areas, is an overlapping, multifaceted approach that links human development, policy frameworks, site design and implementation strategies. This strategy:

- Promotes human development by incorporating the needs of children of all ages.
- Establishes fundamental principles and city-level development standards that provide the basis for play area policy development.
- Uses a setting-based approach to site design which advocates creating play areas designed for the physical, social and intellectual development of children based on activities.
- Presents implementation strategies for realizing Denver’s play area vision.

the resulting snowmelt could provide opportunities for play. Covered areas, enclosed spaces, and indoor facilities are also crucial to protect against Denver’s spring winds and frequent summer thunderstorms and lightning.

While all play area users need protection from the elements and access to drinking water, different users have different needs that must be met in play areas. Infants learn by exploring the world around them and require play



environments that stimulate all their senses. Toddlers and preschoolers need creative play spaces that further develop and challenge their newly mastered physical, social and intellectual abilities. School-

aged children are physically adept and require play areas that allow them to take risks and test their skills as well as develop socially and emotionally through group and solo play. Play areas should also serve adolescents as a safe place to socialize. Play areas must also meet the needs of parents, caregivers and play leaders by providing comfortable attractive settings where they can socialize, observe, teach, play and be physically active with or without children during every season. (See the Appendix for detailed information of the functional and developmental requirements for play spaces for each user group.)

3.3 Citywide Play Area Policies

These citywide play area policies provide a framework for the creation of new Denver play areas and the renovation of existing play areas. By adopting these policies, the City can ensure a wide variety of play area types, sizes, geographic locations, activity settings and facilities that reflect the vision and values of Denver. Specifically, these policies build on the four values put forth in Game Plan as most important for the City’s parks and recreation system.



1. The Right to Play

A primary child’s right is the right to play, which includes the right to a stimulating, developmentally appropriate environment. Denver supports the rights of young people in the design of its recreational, educational and cultural institutions.

- In supporting the Right to Play, the City can ensure

equity in facilities and services and a better quality of life for all.

- The Right to Play entails the right to thrive and be healthy—play areas should stimulate the mind and body.
- Children need to see themselves as part of the broader community. By locating and designing parks and play areas to accommodate the needs of all age groups,

Game Plan’s Core Values:

- A sustainable environment
- Equity in facilities and services
- Community engagement
- Sound economics



Above: Rockridge Greenbelt, Oakland, CA



including adults, both children and adults would have more opportunities to learn how to accommodate each others' needs more skillfully.

- Play areas must facilitate children's need to physically manipulate their environment. Children should have places where the stuff of their surroundings can be picked up, thrown about, gathered, jumped on, eaten, kicked, rolled on, climbed into, broken

down, dug up or taken away, without causing offense.

2. Accessibility and Walkability

Play areas and play opportunities should be designed to be accessible and walkable for all ages and abilities.

- Locate designated developed play areas no more than 1/2 mile apart and play opportunities no greater than 1/4 mile from residences and without

crossing major barriers such as arterial streets.

- Limit the size of residential blocks (300 ft. is ideal) and create a network of multiuse non-vehicular pathways.
- Address play area accessibility issues in partnership with the Department of Community Planning and Development.

3. Connected Parks and Open Space

Every park and play area should be connected to every other park by a “green” circulation system of pocket parks, greenways, play streets, bikeways, trails and natural areas to encourage walking and biking. Providing a high-quality system of connected play places establishes a positive identity for the community.

- Major utility corridors, such as storm water drainage systems or underground and overhead utility corridors, can provide



usable open spaces consistent with their utilitarian function.

- Gulch parks can serve as green connectors that support play as well as ecological or utility functions.
- Safe pedestrian connections and protected sidewalks enhance connectivity, as advocated in Game Plan.
- Coordinate with the Department of Community Planning and Development as well as with Denver Public Schools and other



Top: Davis Commons, Davis, CA
Above: Aspen Greenbelt, Davis, CA



Above, right: Parkfield Natural Area
Above: Davis Central Park, Davis, CA



organizations working to address Safe Routes to School issues.

4. Variety of Compelling Destinations

No two play areas should be the same and there should be a variety of play settings within the system. Each provides a different experience, so when the system is viewed as a whole it provides an exciting and diverse set of activities for all age groups and at all challenge levels.

5. Access to Nature and Urban Wildlife

Although children express a keen interest in urban wildlife, there often is a lack of appropriate, accessible habitats. It is essential for healthy human development to interact authentically with nature. Denver's natural areas, gulch parks, and mountain parks provide important opportunities to experience the natural world.

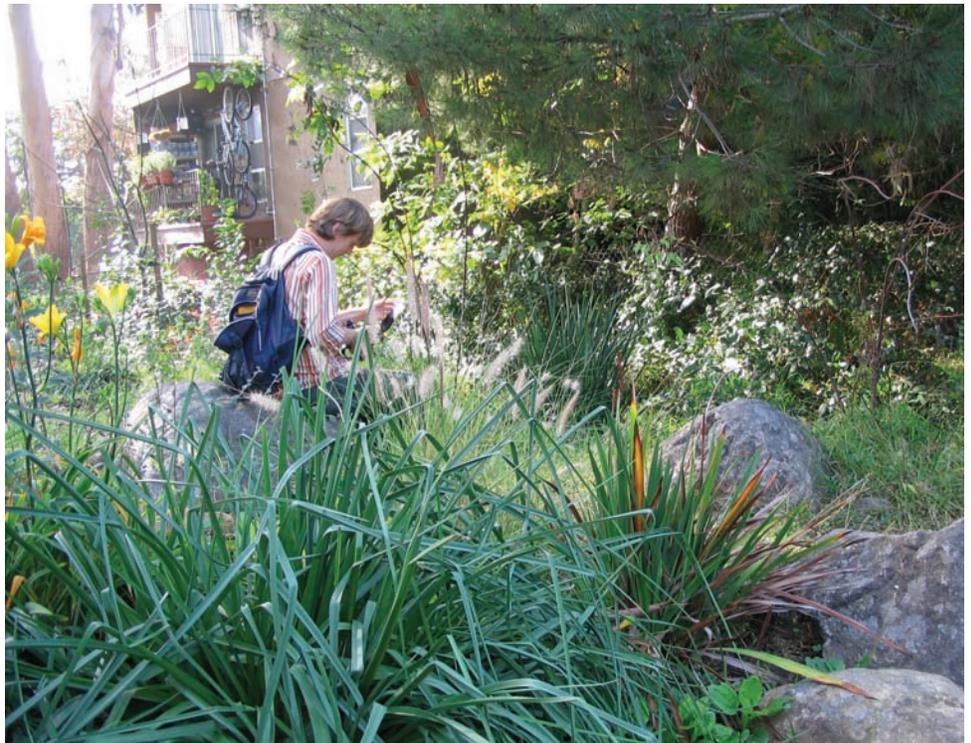
- Increase the diversity of urban ecosystems through native landscaping.

- Recognize small-scale wildlife as an important learning resource.
- Protect natural and wild areas while welcoming public access.
- Implement education programs for play areas within or adjacent to these spaces to stimulate interest and educate the public about environmental stewardship.

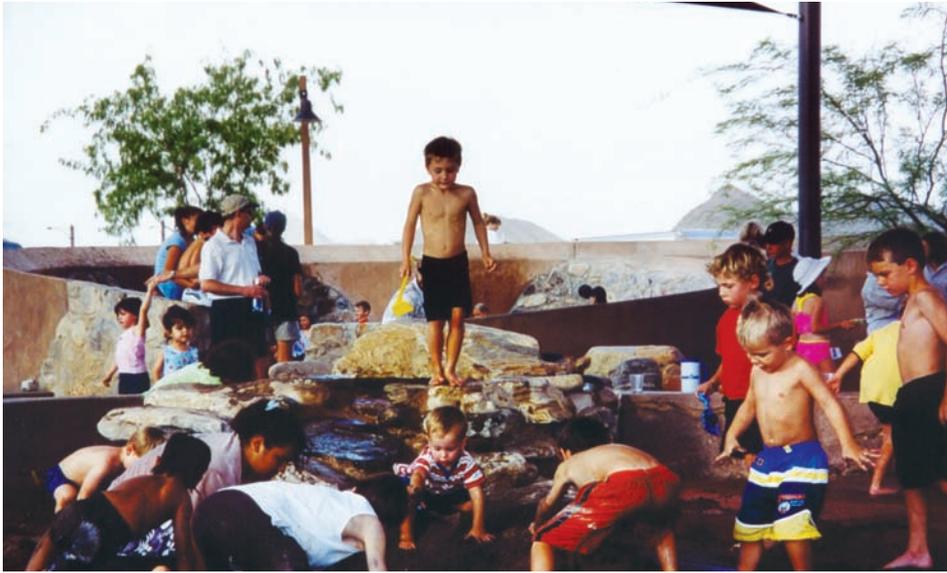
6. Sustainability and Ecological Appropriateness

Good design maintains and respects all natural features of the site when feasible, including natural drainage patterns, topography, plant and wildlife species and pre-existing preservation zones.

- Build on existing environmental conditions or re-create past environmental features whenever possible to define and enhance play areas.
- Design play areas that can function as a tool for learning about the local or regional environment.



Above: Rockridge Greenbelt, Oakland, CA



Top, right: Flood Park, Menlo Park, CA
Top: Market Street Park, Scottsdale, AZ
Above, right: Ibach Park, Tualatin, OR

7. Base Designs on Activities

Play areas should be designed around activities that are needed or wanted in the play area. All too often the only activity setting that a play

area provides is manufactured equipment. That is only one type of activity setting. The number and type of settings should be determined by the play area's location, size, func-

tion, adjacencies and community need. (Refer to Play Area Settings Guidelines for specific recommendations.)

8. Site-specific and Context-Sensitive Design

Play areas should be designed to fit the character of each specific site. While each may have the same play setting relationships, every setting will be distinct with features that make it a destination. No two play areas will look the same. A complete master plan is required for each project even if the entire project cannot be built at once. If a park lacks a master plan, master planning for the entire park may need to take place to determine the most suitable location for a new play area.

- Design play areas with place-making features that reflect the culture, values, history and social needs of the local community.
- Layer elements such as landmarks, water features,



art, special facilities and layout throughout the design to create meaning and community connection.

- Design play areas with great aesthetic quality.
- Use high quality, diverse and long-lasting building materials, and have a variety of well thought out landscape details.
- Integrate art into each play area as part of its functional features—benches, bridges, lights, signs, water features, walls, planters,



Top: Chase Palm Park, Santa Barbara, CA
Above: Flood Park, Menlo Park, CA



Right: Golden Key Park



and shade structures can and should be artful and provide opportunities for incorporating art.

9. Community Involvement

Play area design should include meaningful community involvement that includes adults, children and youth, maintenance staff and recreation leaders.

- Design new play areas in neighborhoods based on overall community need as determined by Game Plan.
- Include community participation in the development of play areas in currently

occupied neighborhoods.

- Continue to involve the community after the park design.

10. Maintenance Standards

Each play area design must provide for on-going maintenance by incorporating materials and facility maintenance standards and requirements as part of the design process. At the end of the design process each play area will have a documented maintenance program.

- Incorporate integrated maintenance funding for all designs.

11. Adequate Funding and Resources

Play area design is complex, and to create a high quality system of play requires adequate funds for capital. Once built, each space must be properly programmed and maintained. Play area maintenance must be adequately funded as well or the investment will be wasted. Each play area design must incorporate capital, operations and maintenance costs in the allocation of funds so there is a complete financial understanding of the play area.

- Utilize partnerships and collaboration opportunities for funding.
- Prepare cost estimates for each project that includes a full accounting of all costs at the schematic design stage.

12. Change Over Time

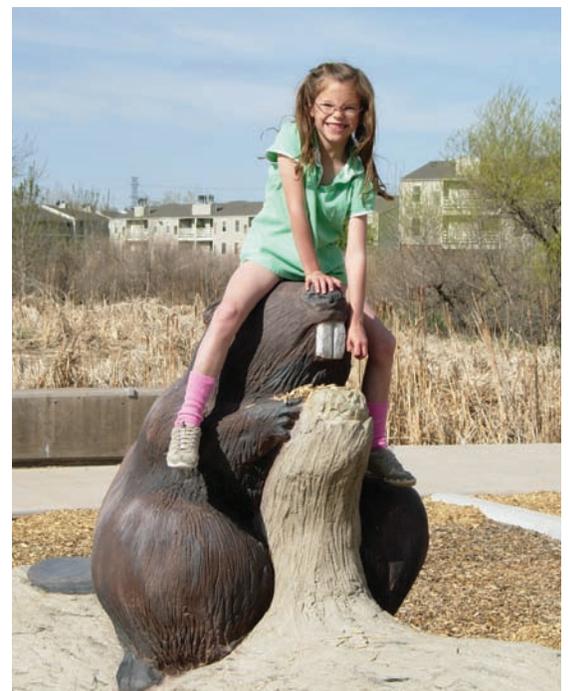
Neighborhoods change over time and play area design must take this into account. The inclusion of flexible

space allows for adaptation as a community grows and changes. Full funding is also not always available, so incremental development allows the site to evolve over time.

- Consider and anticipate changing demographics and new trends when planning play areas.
- Take a phased approach to design in order to allow for significant changes in user types and patterns over time.
- Build for all ages whenever possible.
- Use high quality materials for long-term cost effectiveness.

3.4 Play Area Development and Management Standards

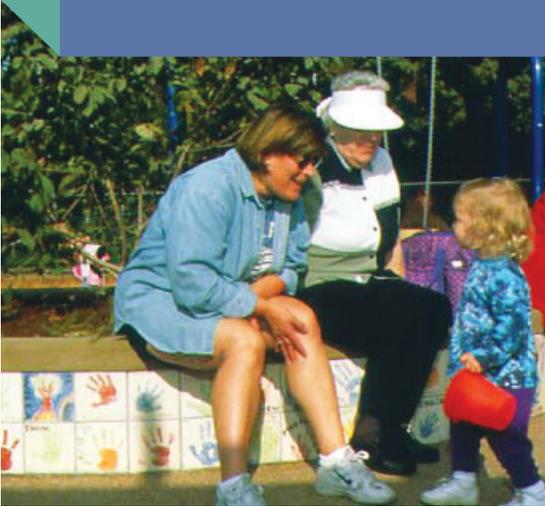
The standards in this section guide the development of play areas in any public space including parks, greenways, play streets, trails and natural areas. Play areas



Above: Hutchison Park

The Three Needs: Behavioral, Ecological, Management

The Master Plan standards described in this document are structured to provide a play system that fulfills behavioral, ecological and management requirements. Behavioral requirements address the needs of individual play space users. Ecological requirements address the human habitat and setting issues. Management requirements control the care and sustainability of the play area system.



using these development and management standards will be judged on the quality of spaces created. Ultimately, the system must perform for each affected individual—from users in their daily lives to the managers who are charged with the system’s continuing success. These development and management standards will ensure that the system meets the City’s goals and provides the expected individual and community benefits.

A. Behavioral Needs

The development and management standards in this section are based in part on the activities or behaviors that each type of setting is expected to support. Behavioral requirements are based on human, cultural, social and biological needs such as:

- Physical comfort and safety
- Community, connections and identity
- Stimulation and discovery

- Fun and joy
- Beauty and spiritual restoration

These needs can only be satisfied in play settings specifically designed to support them. A good setting is based on the physical, social and cultural activities people engage in throughout the course of their lives.

B. Ecological Principles

Ecological considerations have become important factors in the design, construction and maintenance of play areas. Ecological requirements are the basis for a second set of development and management standards. They are habitat-related and based on a simple ecological principle: complete ecosystems must provide for a range of needs, offering habitat for plant and animal species, including human animals. All habitats are designed or manipulated to support life by the species that inhabit them. There are six

ecological requirements that determine the health of the ecosystem or settings in which we live:

1. Diversity: habitat or species variations to allow adaptive potential

2. Complexity: richness of stimulation to promote an organism's development

3. Connectivity: safe pathways or corridors to allow mobility in finding life-sustaining resources

4. Range: ability to move through a habitat to acquire resources

5. Adaptability: ability of species to adapt to variations in environmental conditions

6. Sustenance: availability of resources

C. Management Criteria

This document emphasizes five criteria for managing play settings. Each has a role



Above: Taipei American School, Taiwan

to play in the success of the system.

Play Value Play value is a measure of the developmental significance of a play setting, object or material as well as the degree to which it stimulates children's play. Each play setting should promote learning simply by using and interacting with it. No element should be added



to a play area unless its play value is understood.

Programming Potential

Programming potential evaluates the degree to which a given play setting, object or material can be used as a

resource for creative program development. While all play areas will not have permanent staffing, they should be designed to support both formal and informal recreation programs. For example, shaded gathering areas with seating or picnic tables could accommodate family picnicking, a summer camp program or provide opportunities for additional events permitted by parks.

Play Leadership Play and recreation leaders are essential components of successful play programs. As skilled professionals trained in the use of creative arts and physical settings, they devise stimulating and challenging play events for a wide variety of children. In addition to creating a context for fantasy and dramatic play, a good play leader can be a positive role model, demonstrating autonomy, cooperation, flexibility, willingness to listen and desire to change and

grow. Again, while all play areas will not have permanent play leaders, play settings must be designed to support facilitated play. For example, providing nearby storage opportunities for play props and equipment—in park restroom buildings or recreation centers—would sustain a facilitated play program.

Safety Safety is the concept of caring for the health and well-being of all children in all circumstances. Children are dependent on adults to provide safe, appropriate, high quality play settings designed for their healthy development. Play settings must eliminate exposure to hazardous situations and remove any known dangers from the environment. Everyone engaged in the design and management of play spaces must understand play behavior and all related safety requirements (see the Consumer Products Safety Commission Guide-

lines [CPSC] Handbook for guidelines), as well as the differences between risks and hazards. Children’s environments need to include a graduated series of challenges and activities requiring children to evaluate their potential for risk. However, no children’s environment should have hazardous or unsafe conditions.

Risk Management Risk management refers to the management strategies and methods used in reducing the risk of accident, liability and lawsuit with respect to play settings. A comprehensive set of risk management strategies includes:

- **Shared Environmental Control** Control over the physical environment is essential to the safety and security of children. Entrances to every play space should be able to be monitored. Where the space is used by several organized



groups, staff should be acquainted with each other and the children so monitoring responsibilities can be shared.

- **Defensible Settings**

Large programmed activities can be broken into small group activity centers throughout the site. This decentralization of activity increases the possibility of informal surveillance of the whole site.

- **Shared Site Maintenance**

Effective site maintenance is essential to the health and safety of children. For most sites, this can be achieved most effectively when program staff, the parks and recreation department or the school district share maintenance responsibilities.

- **Staffing and Supervision**

The greater the ratio of trained staff to children, the lower the chances of children getting into situations that could result in injury.

- **Staff Training** Professional training is necessary to prevent staff from inadvertently blocking children from essential, nonhazardous risk-taking activities.

- **Built-in Risks** Building risk into programs is an excellent strategy for providing safe yet challenging experiences for children that reduces the likelihood that children will seek challenges in dangerous situations elsewhere.

- **Allowances for Spontaneous Play** To ensure play opportunities that span the full range of developmental needs, spontaneous play that may use settings in unexpected ways must be allowed. Staff must take care that hazardous situations are avoided.

- **Community Involvement** By encouraging their participation in play programs, children's families and neighborhood residents become more knowl-

edgeable of and positive toward the settings' goals and objectives. The chance of a negative or litigious reaction to mishap is thereby reduced. Community-based management means parents and local residents must take leading roles.

- **Documentation, Record Keeping and Reporting** As part of staff training, it is essential that everyone involved in a given play program follows standard record keeping procedures and uses pre-determined documentation and reporting procedures in the event of an accident. Denver's Play Area Design Standards should also be updated to reflect the information in this master plan. Consistency in project close-out at the end of the design and construction process is also necessary.
- **Accessibility** Accessibility is a measure of the degree



to which users can experience all parts of an environment, recognizing that each will be more or less difficult for each individual.

- **Integration** Integration assesses the extent to which children of different ages, sexes, ethnic and social groups, as well as different ability and disability levels, interact and play together.



Above: Central Park play mounds

- **Management** Management refers to the systematic and rational processes, procedures and strategies used to allocate environmental resources to meet social goals. Included are

policy, planning, participation, physical design, maintenance and budgetary activities.

D. Summary

By basing the standards for play settings on three sets of requirements—behavioral, ecological and management needs—the City can establish a clear set of design guidelines for planners, designers, developers and managers in order to meet the goals of a connected and integrated system of play areas, parks and open spaces. Because the system is based on the local conditions and ecology, it will provide the community with a unique sense of place that will positively influence the image of Denver as a city that supports human development.

3.5 Play Area Settings Guidelines

The concept of the play setting is a means of integrating behavioral needs and physical requirements into the design process. Play settings are defined by the grouping of activities and the physical environment that support them. Play settings are very flexible. Their type and number vary depending on the type of park play area in which they are located. A pocket park play area might have 5 settings while a regional park play area would have many more. While in ideal circumstances most play areas could incorporate all play settings, not every play setting is appropriate for every site. A setting's form also varies to reflect the site context and the project budget. An elaborate water spray area would be an appropriate water setting for a regional park while a spigot draining into sand would be effective for a modest neighborhood park.



Above: Denver 'Learning Landscape' Schoolyard

The requirements for each basic play setting are discussed in the following section. Each of these play area settings, which range from entrances to storage, can be expanded and/or renamed depending on the purpose of the play setting.

play area settings

Entrances

Entrances welcome visitors to the play area setting and provide critical transition zones from transportation and arrival to the space. Clearly defined entrances orient users and introduce them to the site. An entrance is a reference point—it can reflect the seasons and provide a place for people to meet, talk and display community information. Entrances can vary by park type, scale and the elements used to create them.



Above: Entrance to Mayfair Park Playground

Purpose

Orientation, Meeting, Waiting, Notice posting, Sitting/resting

Components

- **Gateway element:** Entrances can be marked with overhead gateway structures, which function to clearly indicate an entrance as well as add an attractive sculptural element that sets the tone for a play area.
- **Bollards:** Bollards allow pedestrian traffic while halting vehicular access. They can also be designed as seating. Bollards should be highly visible, at night as well as during the day.

- **Bike racks:** Bike racks promote the use of bicycles and other alternative forms of transportation. They are also a signal to teens and adults that their presence in play areas is welcomed.
- **Litter receptacles:** Litter receptacles serve the practical purpose of collecting trash. By doing so, they encourage pride of place that helps develop a neighborhood sense of responsibility.
- **Signs:** Signage provides details about the site and gives directions about its usage and care.
- **Seating:** Seating provides a place for children and their caregivers to meet, chat and rest.

play area settings



- **Drinking fountains:** Having drinking water available is important for both children and adults.

Requirements

It is essential that principle entrances be fully accessible. A play area can have more than one entrance and/or entryway within the play area to define other settings. A secondary entrance may be optional and some play areas require a single secure point of entry and exit. Play areas should provide a clear path of travel from parking/side-walk/transit to the entrance.

Adjacencies

Entrances must be linked by accessible walkways to public transportation, passenger loading zones, accessible parking spaces, and public streets and sidewalks.

Operations and Maintenance

Adequate maintenance, including regular trash collection, must be provided so that entrances attract visitors into the play area and leave a positive impression when they depart.



Top: Play Park, Jacksonville, FL

Above: Jake's Play Lot, San Jose, CA

play area settings

Pathways and Circulation

Pathways provide access to and separate functions within a play area. They orient users and enable them to move between and through play elements; pathways should support the ebb and flow of play from one zone to another. Depending on their design, different types of paths can support different activities—from circulation to wheeled-toy play, chase games and exploration.



Above: Tule Elk School, San Francisco, CA

Play areas should contain a variety of path types and provide a choice of routes. Connected, curvilinear paths support prolonged uninterrupted play. The pathway system is the setting in a play area with the highest level of movement and activity. To increase physical activity, pathways should include changes in elevation.

Purpose

Walking, Running, Games, Wheeled Toy Play, Tracking, Coloring with Chalk

Components

- **Surfaces:** The surface of a path is one of the primary determinants of its accessibility. In order of

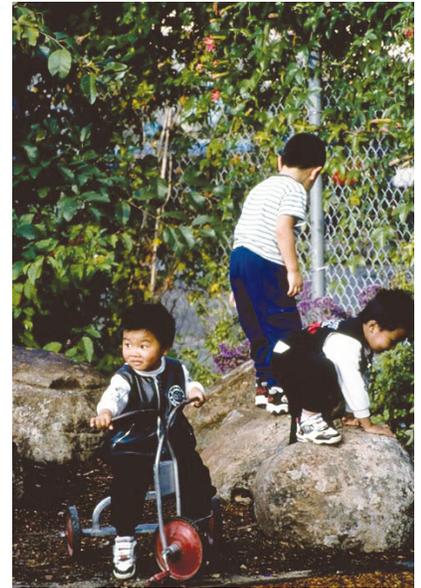
decreasing accessibility, possible surfacing choices are: concrete, asphalt, pavers on concrete, crushed stone/decomposed granite, decking, pavers on sand, turf or soil. Pathways can be textured, colored or imprinted to support play.

- **Seating:** Benches should be provided at regular intervals along principle paths. Benches should not be located in a way that restricts movement.

Requirements

Pathways are a play element in themselves and should be treated as a play experience. Most of the exercise that takes place in play areas happens on the circulation system. Main pathways should

play area settings



Left: Beijing International School, China
Above: Tule Elk School, San Francisco, CA

be a minimum of 72 inches wide. No path should be less than 36 inches wide.

Adjacencies

Pathways connect the play area to the site and to each activity setting or support facility within the play area. Play areas must be linked to the surrounding neighborhoods by accessible routes. Paths leading to and from play areas must also be ac-

cessible. Access for fire and emergency vehicles up to or within the play area is also required.

Operations and Maintenance

Paths should be designed to allow multimodal uses (pedestrians, wheelchairs, tricycles, bicycles, skateboards and other wheeled toys) as well as maintenance and security functions.

play area settings

Manufactured Play Equipment Settings

Manufactured play equipment can be a single element or a composite structure designed to facilitate a wide variety of play activities. Play equipment should stimulate large muscle activity and encourage a variety of movement opportunities. Some elements should be interactive and respond to children's input. Children can also learn spatial complexity and directionality from structures that utilize three-dimensional, connected paths of movement, such as up-down, over-under, in-out, and right-left.



Top, Right: Lower Downtown Children's Play Area
Above, Top: Toddler play area at Central Park
Above: Chase Palm Park, Santa Barbara, CA

Play equipment should provide a wide range of options to maintain the interest of children with varying abilities. In addition, play structures can incorporate a full range of tactile, auditory and visual stimulation.

Purpose

Climbing, Jumping, Swinging, Sliding, Crawling, Rolling, Twirling, Balancing, Hiding, Seeking, Pushing, Pulling

Components

- **Play events:** Play events, such as swings and climbers, continue to be popular and change often, reflecting innovations in play equipment design. Using tall features adds an element of

height into the design and can function as a landmark.

- **Nooks and semi-enclosed spaces:** Small spaces support dramatic play, hiding and chasing games as well as social exchanges and other less physical aspects of children's development.
- **Sand and water features:** Often incorporated into play structures, sand and water play encourage creativity and cooperation.
- **Themed elements:** Thematic equipment closely matches developmental stages. However, over time, children can tire of these play settings. For most ages, the more abstract the theme representation, the more

play area settings

imagination that comes into play activities.

- **Seating:** Benches, seat walls and other seating opportunities aid social interaction for children, parents and caretakers.
- **Resilient surfacing:** Play surfaces that are designed to protect children from injury from falls should also be slip-resistant and durable. These surfaces should meet ASTM and Consumer Product Safety Commission fall attenuation requirements.

Requirements

Play equipment must be designed to challenge children physically and mentally while maximizing safety. Providing play equipment tailored specifically to the developing physical abilities of different age groups is essential. Age-separated play areas should be provided to prevent toddlers from playing on equipment meant for older children and vice versa. The equipment itself should be built to match the physical

size and abilities of children within a given age range. Signs notifying parents and caregivers of the intended age of the users should be located in each play equipment area.

Play surfaces should be well drained to prevent flooding and erosion. Materials with a unitary surface, such as poured-in-place rubber or rubberized tiles, provide the highest level of accessibility for children with and without disabilities. When using loose fill materials, such as wood chips or shredded rubber, the difference in height between the path and the play surface can be a barrier to access.

These play pits must have short ramps into the surfacing to ensure their usability by all children. When a water source is located within a sand play pit, however, it is important to provide transfer steps so that children using wheelchairs can leave them and engage in play alongside other children.

Adjacencies

Constructed play equipment in a play pit does not provide

a sufficiently stimulating or developmentally appropriate experience on its own and must be considered as one part of a multipurpose play environment. Other play settings, connecting pathways and support facilities such as litter receptacles, toilets and drinking fountains should be located close by. If sand is provided in a play setting a dedicated water source for sand play should also be provided and drinking fountains located further away to protect them from becoming clogged with sand.

Operations and Maintenance

Strict policies and standards are needed to ensure the safety and usefulness of play equipment. Denver's extreme climate may degrade safety surfaces, decreasing impact attenuation and accessibility. Since the component elements for play areas are generally guaranteed for five years, they should be re-evaluated at this time and renovated as needed, no more than every 10-12 years.

play area settings

Water Play

Water features and aquatic environments are highly valued by children. Water is a powerful play area attractor as children, who value its multi-sensory character, seldom miss a chance to play with and in water. Water settings support a variety of wildlife and add greatly to the aesthetics of any play setting.



Above: Stafford Park, Redwood City, CA

Water can be a permanent or temporary feature and whenever possible, natural water features should be preserved. Water is also a valuable addition to other play elements, such as sand.

Purpose

Exploring, Observing, Listening, Splashing, Wading, Floating, Fishing, Constructing, Pumping, Carrying

Components

- **Natural water features:** streams, ponds or marshes.
- **Artificial water features:** wading pools, spray pools and surfaces, bubblers and sprinklers, fountains, water tables or a hose bib in a sand box.

Requirements

Ensuring safety is an important part of design; the depth, access and form of water features must be carefully evaluated. Water for play areas must be drinking quality and not share its source with irrigation water. Water play areas must have slip-resistant and well drained surfaces and be located in sunny areas, protected from the wind.

Adjacencies

Water play areas should be in close proximity to caregiver seating. If a sand area is located in a play area, a water source should be provided within it; otherwise children will bring sand to the water play area, creating a maintenance issue.

play area settings



Children usually bring sand to water, not water to sand.

Operations and Maintenance

Plumbing and pump systems for water features must be simple, with few moving parts. Anti-vortex drains are appropriate in some water play settings. Some water play equipment manufacturers are now including the option of water treatment systems designed to recirculate water. However, many water play systems use domestic drinking water without recirculation. They have restricted or seasonal



hours of use and are designed with user-activated, low-flow emitters to conserve water. A regular maintenance and cleaning regime should be established as well as a winterizing program.

Top, Left: Fountains at Central Park
Top: Brookfield Zoo, Brookfield, IL
Above: Jack Fischer Park, Campbell, CA

play area settings

Sand Play

Due to its softness and malleability, sand is one of the most popular and well-used play materials. When combined with water, sand has even more potential. The ultimate “loose part,” sand is an excellent medium for creative play and social interaction. However, sand is not considered an accessible surface.



Above: Howarth Park, Santa Rosa, CA

Purpose

Digging, Pouring, Sifting, Sculpting, Drawing, Filling, Emptying

Components

- **Sand pit:** The sand surface should be maintained less than four inches below adjacent paving. Raised curbs around the sand pit prevent easy maintenance and are not recommended. A transfer system in the sand is needed to accommodate the needs of children using wheelchairs.
- **Elevated play surfaces:** Sand tables, shelves or rocks provide a solid surface for toy play and make sand areas accessible to all children.
- **Water source:** Water is essential for sand play.

Child-activated water sources and a trough or channel to carry a trickle of water into the sand work well.

- **Enclosure:** Preschool play areas are often separated by low fencing, which keeps small children from wandering. It also prevents older children from running through the relatively quiet play found in sand areas.
- **Storage:** A place for rakes, brooms and large toys is recommended. Some communities take responsibility for daily or regular maintenance activities such as sweeping.

Requirements

Sand play areas should be large enough to accommodate a large number of chil-

play area settings

dren but shaped to encourage small group play. Sand areas that are 3 to 4 feet deep encourage real digging. The mix of sand is critical; children must be able to mold the sand without it becoming as hard as concrete. Usually a variety of sieve sizes is best. Designs should also take into consideration the local microclimate, with special attention to sun exposure, wind protection, and site drainage. While sand is a good surface for protecting children from injury, it does not provide an accessible route to play equipment.

Adjacencies

Sand settings should include a water source but be located away from drinking fountains. Hardy vegetation in planting pockets adjacent to sand areas can enhance imaginative play by providing plant parts for building or water transport. Sand play areas must be separated from other active play zones. Even when sand is used in a play equipment setting, separate sand and water play areas should be provided and clearly designated.

Operations and Maintenance

Sand should be turned and raked on a regular basis. In areas with neighborhood groups, the City should consider supplying brooms and rakes and encouraging neighborhood/user clean-up. While a few hours of sun, preferably in the morning or late afternoon, helps to keep sand clean, sand areas should be shaded to protect from the intense heat of midday. The “Million Trees for Denver” program could provide an opportunity to plant deciduous trees that would offer appropriate shade. Many believe that the presence of cats causes unsanitary conditions in play areas. This “health” issue is a myth. Unless there are hundreds of them using the site, cats pose no risk to children playing with sand. Dog owners should be informed that dogs are not allowed in sand play areas. Doggie bags and trash receptacles should be provided at all parks and their use should be encouraged.



Above: Redstone Park, Highland Ranch, CO

play area settings

Multi-Purpose Game Areas

Multipurpose game areas are flat, open spaces with hard and/or soft-surfaced areas. Multipurpose game settings support recreation that promotes cooperation and team spirit such as team sports, large group games and informal ball play. These open spaces are also useful for community events and festivals.



Purpose

Running, Playing Ball, Playing Games, Gathering, Biking, Skateboarding, Rollerskating, Rollerblading, Scooter Riding

Components

- **Places to run** These can be simple open areas or, for children with disabilities, more structured spaces with running lanes or rope guides.
- **Hard-surfaced play areas** Formalized zones with hard ground surfaces are best for court games such as basketball; less-structured spaces with a hard ground plane are needed for bike riding, skateboarding, roller skating and other informal play. Hard surfaced play areas

could include game boards, mazes and irregular paths.

- **Ball play areas** Ball play areas can overlap and one zone can contain fields for several different sports.
- **Ball walls** Ball walls can be as simple as the outside wall of a building, or as complex as stand-alone walls with curved surfaces for added interest.
- **Storage** Play equipment for multipurpose game areas should be stored nearby. Storage units should be accessible to children but in areas with adult supervision.
- **Seating** Seating promotes patience and socialization as children “wait their turn.”
- **Planting** Trees provide

play area settings



shade while shrubs and other plantings give interest to what could otherwise be a visually uninteresting place.

Requirements

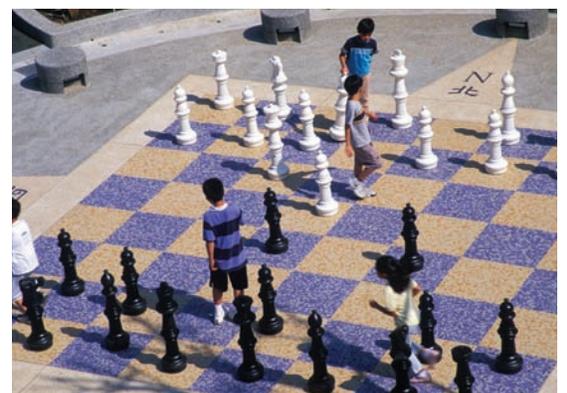
Multipurpose game areas do not need to be rectangular. An irregular boundary adds visual interest. Site grading is essential to prevent water from unintentionally accumulating on the play area.

Adjacencies

In order to be multifunctional, these open spaces should be sited near shade, toilets, drinking fountains, litter receptacles, seating and parking.

Operations and Maintenance

Ball game areas are often underused compared to other play areas. Efforts should be made to design and program for a variety of potential uses throughout the day, week and year. For example, water spray heads located in a slip-resistant paved area could also have basketball hoops and contrasting paving colors to delineate ball play zones. On hot summer days, ball play could be suspended from time-to-time to allow a cooling respite of water spray play.

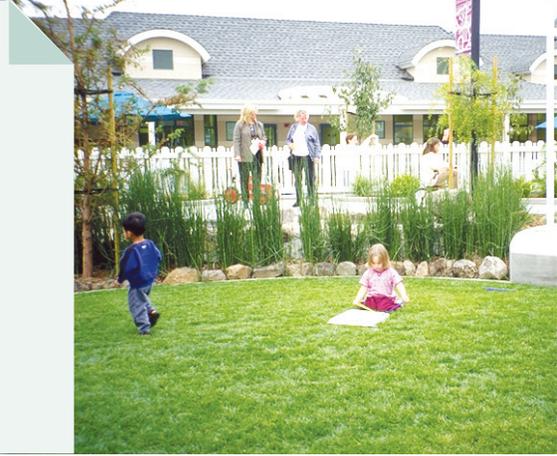


Top: Denver 'Learning Landscape' Schoolyard

play area settings

Gathering / Meeting / Working / Picnicking Places

In order to develop social skills and cooperative relationships, children need both large and small gathering spaces. These spaces must be designed to accommodate many types of activity and “non-activity” at different times by different people. Small intimate spaces provide places for children to be alone or spend time with a friend or two.



Above: Environmental Yard, Berkeley, CA

Gathering spaces can also function as places for caregivers to sit together and observe children. Larger spaces facilitate group activities (15 or more participants). Areas that are easily identifiable become good rendezvous points.

Purpose

Eating, Socializing, Working, Reading, Observing, Participating in Arts and Crafts, Playing Games

Components

- **Work tables:** Tables with seating to accommodate eating, games and crafts. Work tables should be wider than picnic tables and have smooth surfaces with rounded corners.

Smaller child-sized tables should be provided. Work tables should be accessible to children and adults with disabilities. They should be located on firm, stable and slip-resistant surfaces with sufficient circulation spaces around them and an accessible pathway leading to them. Work tables should have places for a person using a wheelchair to sit; some manufacturers offer tables with these wheelchair spaces located in different positions to accommodate a variety of user preferences.

- **Seating:** A variety of movable furniture options are optimal. Moveable furnishings would be best located near recreation centers

play area settings

or other facilities that can monitor the furnishings.

- **Shade:** Covered areas provide all weather protection and trellises provide shade. Both structure types provide picnic locations.
- **Grills and barbecue pits:** Children should have opportunities to learn to handle fire in a controlled and safe group setting. Any recreational activities that involve fire require constant adult supervision.
- **Water source:** Outdoor sinks and spigots must be designed to be used by small children and people of all ages with disabilities.
- **Drinking fountains:** Drinking fountains must be fully accessible for small children and people of all ages with disabilities.
- **Toilets:** Bathroom facilities expand the possible activities of meeting spaces. They should be clearly visible and directly accessible from the main areas of the play environment.
- **Litter receptacles:** Trash and recycling bins must be

located adjacent to meeting and working areas.

Requirements

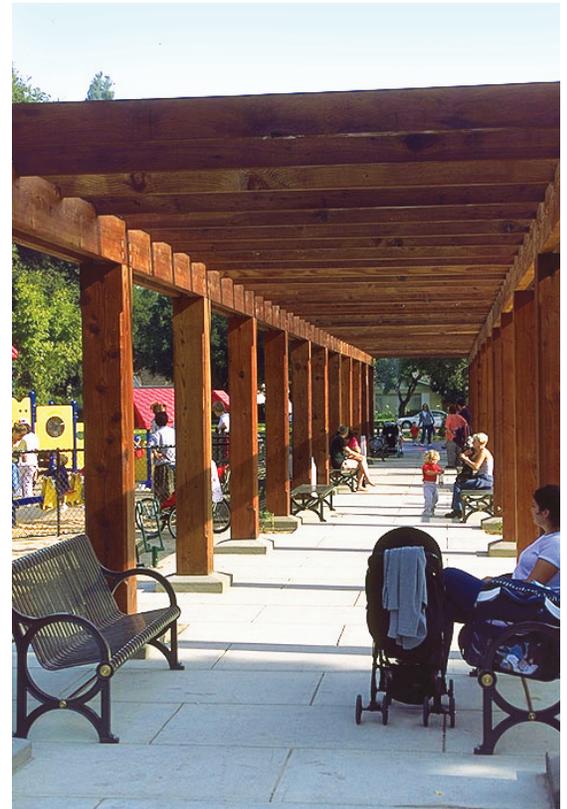
Meeting spaces should be protected from the elements and may be covered and/or enclosed. A variety of seating options and a varied sense of enclosure, from private to open, should be provided.

Adjacencies

Spaces for large groups should be situated at main path crossings and at entrances. Small group spaces should be located away from these zones. A prime location for meeting and working is at the transition point from inside to outside. For programming convenience, work places should be next to storage areas.

Operations and Maintenance

In order to maintain their appeal, social spaces require daily maintenance, especially trash/recycling collection and graffiti removal. Good maintenance makes these attractive spaces for birthday parties and other social events.



Above: Stafford Park, Redwood City, CA