



REPORT

THE CITY OF SAN DIEGO TO THE PARK AND RECREATION BOARD

DATE ISSUED: May 10, 2011

REPORT NO. 201

ATTENTION: Park and Recreation Board
Agenda of May 19, 2011

SUBJECT: Guidelines on the Use of Synthetic Turf within the City's Park System for
Athletic Areas

SUMMARY

THIS IS AN INFORMATIONAL ITEM ONLY. NO ACTION IS REQUIRED ON THE PART OF THE BOARD.

Park and Recreation Department Staff developed guidelines for the potential use of synthetic turf in City parks. The Synthetic Turf Guidelines (Guidelines) will be incorporated into the Department's Consultant Guide to Park Design and Development to provide direction to City staff and outside consultants involved in park design. The use of synthetic turf systems on athletic fields has grown in popularity for all levels of play, including public recreational leagues, high school and college athletic complexes, non-profit organizations and professional sports teams. While the climate in the San Diego region is ideal for natural turf, staff believes synthetic turf can be beneficial within the park system in certain site specific and program specific applications. The evolution of synthetic turf technology has significantly improved installation and maintenance processes and enhanced the safety and lifecycle of materials. For those reasons, and others of water conservation and improved playability, staff feels it is appropriate to consider the use of synthetic turf in future park plans.

A technical report was prepared and provided to address subject areas such as turf types, user health, costs and benefits, water use and other matters commonly associated with the use of synthetic turf. Due to the length of the report, we have chosen to provide a link to the report on the Park and Recreation Department's web page. The report may be found at <http://www.sandiego.gov/park-and-recreation/general-info/consultantguide.shtml>.

BACKGROUND

Synthetic turf, as used in the proposed Guidelines, is commonly referred to as crumb rubber infill type system in which crumb rubber granules are added to a flexible synthetic grass carpet to stand the synthetic blades in place and provide a cushioned playing surface. Silica sand may also

be mixed with the crumb rubber. The synthetic grass and infill are underlain with a crushed stone base and drainage pipes to facilitate rapid drainage of the playing surface. Several manufacturers provide this type of synthetic turf system for use on athletic fields.

Advantages of synthetic turf over natural turf include:

- Provides a more consistent, resilient and level playing surface
- Does not require irrigation
- Does not require the application of fertilizers, pesticides or herbicides thus reducing operating costs and exposure to non-organic compounds.
- Does not require mowing and edging, thus reducing emissions due to the use of gasoline powered maintenance equipment and reducing operating costs
- Provides year-round use with no down time due to turf renovations or weather-related conditions
- Can support heavier use, allowing for additional field programming
- Provides an attractive well manicured appearance

Disadvantages to using synthetic turf in a public park include:

- Higher initial installation cost
- Increased cost of repairs related to vandalism or misuse compared to similar repairs made to natural turf
- Purchase of specialized maintenance equipment.
- Increased need for passive security measures and oversight to mitigate improper uses, such as food products, punctures or burns to the carpet, which may reduce manufacturer's warranty or shorten the life span of the product.
- High replacement cost at the end of the synthetic turf's life expectancy for which funding will need to be identified
- Heat build-up on the playing surface can become a health and performance issue for users
- Cost and method of recycling or disposing of synthetic turf components at the end of its lifecycle is not fully known

The City currently maintains 4.9 acres of synthetic turf located at Pershing Middle School which opened in September 2006 within the San Carlos community. This is a joint use site with the San Diego Unified School District. This site has no irrigation system and is open to public use when school is not in session.

The Tecolote Youth Baseball organization has installed synthetic turf on three infields at Tecolote Community Park. These infields were installed between 2006 and 2008 with most funding coming from grants the organization received.

The synthetic turf joint use field located at Edison Elementary School within the community of Normal Heights is 1.25 acres in size. This field is maintained by San Diego Unified School District. It was opened in September 2007 and has had no significant maintenance issues to date.

There are two future joint use sites with the San Diego Unified School District currently in design. The Language Academy site, located in the Rolando community, will include a 1.5 acre synthetic turf field and Jefferson Elementary joint use will include a 1 acre joint use field. Both sites are anticipated to be open in calendar year 2012.

The Guidelines were presented as an information item to:

Community Parks I Area Committee on March 2, 2011

The Balboa Park Committee on March 3, 2011

Community Parks II Area Committee on March 9, 2011

The Design Review Committee on August 11, 2010. The Design Review Committee assisted staff in developing the Guidelines and identifying issues to be evaluated in the full report. Therefore, their involvement preceded the presentation to the other advisory groups.

The general consensus from these advisory groups was they prefer natural turf over synthetic turf, but understand why Guidelines are necessary. Comments received during the presentations which have been incorporated into the Guidelines included:

- Multi-purpose synthetic turf fields should not include permanent striping to allow flexibility of use
- Do a thorough review of synthetic turf providers and contractors to help ensure they will be available for repairs and maintenance throughout the life of the turf system
- Consider security measures to protect the synthetic turf
- If multi-purpose fields are synthetic turf, the infield areas of softball and baseball should also be synthetic turf to allow flexibility in the field use
- Require synthetic turf manufacturers to address the recyclability of the turf materials at the end of its useful life
- Review potential storm water impacts from synthetic turf field runoff

The San Diego Unified School District has also reviewed and approved the Guidelines.

PROPOSED GUIDELINES

Synthetic turf systems may be considered for use in public park facilities if they are installed for permitted, active sports-related recreational activities or to replace small, high use natural turf areas that are difficult to maintain as determined by the Park and Recreation Director.

The following criteria shall be met before an active sports-related site is considered for synthetic turf. Some or all of these criteria may be waived or additional criteria may be imposed by the

Park and Recreation Director at any time due to the varying recreation facilities found in the City's park system, the evolution of synthetic turf products and new research findings becoming available.

1. The synthetic turf system for athletic fields shall be a crumb rubber, crumb rubber and silica sand, synthetic or organic infill type with a subterranean drainage system sufficient to allow the playing surface to drain quickly.
2. The manufacturer shall have local or regional representation within San Diego, Orange, Riverside, San Bernardino, Ventura, or Los Angeles Counties, capable of performing repairs and providing maintenance advice in a timely manner.
3. All components of the synthetic turf system shall meet or exceed relevant federal, state and local health requirements. Manufacturers shall be required to fully disclose all materials used in the manufacture of the synthetic turf system and provide complete information on all potentially toxic constituents.
4. The project specifications for a synthetic turf system shall include provisions to secure the necessary equipment and training to properly maintain the synthetic turf system according to the manufacturer's recommendations and warranty requirements.
5. A synthetic turf facility for sports related activities shall be by permit only, unless otherwise supervised by City staff, and shall be designed to be secured when not in use.
6. Synthetic turf field intended for multi-use shall not incorporate game striping or skinned infields to allow flexibility in use. Using alternate synthetic turf colors to delineate infields, running tracks or other uses will be reviewed and approved on a case by case basis by the Park and Recreation Director. Only City approved field marking paint or systems shall be allowed.
7. Cautionary signs shall be posted with user health and safety guidelines at all synthetic turf fields. These signs shall include, but not be limited to, advising users how to recognize heat-related illnesses and the proper steps to take to moderate and treat such illnesses, emphasize good hygiene such as washing hands after playing and practicing, and standard first aid for skin wounds to prevent infections.
8. Signs shall be posted to indicate which activities are allowed and not allowed on the synthetic turf. These signs shall address, but not be limited to, items such as food, drinks, pets and certain types of chairs, umbrellas, athletic shoes and athletic equipment which may damage the turf and invalidate the manufacturer's warranty or shorten the product's life expectancy.
9. Shade and drinking fountains shall be provided near the synthetic turf field. Where shade and/or drinking fountains cannot be provided due to design or site constraints, efforts shall be taken to encourage users to provide acceptable portable shade systems and drinking water.
10. Each synthetic turf installation shall include a water system of quick coupling valves or secured hose bibs to assist in the proper maintenance of the synthetic turf. Potable water shall not be used to cool the synthetic turf playing surface.

11. The City's Storm Water Department or Division shall review the proposed synthetic turf system during the project's design phase.
12. The recyclability of the synthetic turf and infill components shall be considered when selecting the synthetic turf type to assure the materials can be recycled at the end of the useful life.
13. Synthetic turf fields shall not be installed in flood prone areas due to potential damage to the turf and possible dissemination of synthetic turf materials, such as the infill material, into storm drains or natural drainage courses.
14. When possible, prior to installation of the synthetic turf system, the City shall identify a funding source for the replacement of the synthetic turf at the end of its life expectancy. The funding source shall include the costs for recycling and/or legal disposal of removed synthetic turf components.
15. Synthetic turf may be considered for smaller areas other than athletic fields where the extensive use causes soil compaction and makes natural turf difficult to maintain, such as adjacent to playgrounds or other high use passive areas. In these smaller areas, synthetic turf systems that do not use an infill and are not designed for athletic use may be considered.

As the synthetic turf industry evolves and new information becomes available, these Guidelines will be amended accordingly.

Respectfully submitted,



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