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## **INFORMAL STAFF REPORT TO MAYOR AND CITY COUNCIL**

### **SUBJECT:**

Artificial Turf on Sports Fields

### **BACKGROUND:**

At the May 7, 2019, City Council meeting, Council Member Armintor requested information on the cost of adding Artificial Turf on sports fields.

### **DISCUSSION:**

Artificial turf is becoming more popular in the recreational sports environment. This is due to the benefits of the extended use time of the artificial turf versus natural grass. The availability of artificial turf provides a durable surface, ability to play during inclement weather and, elimination of wear and tear on the playing surfaces. This year, the City of Denton had two large softball tournaments rained out in 2019. This resulted in PARD refunding \$6,192.50 in revenue. These cancelations also resulted in a loss of economic impact to the community.

PARD staff currently limits the number of tournaments to 15 weekends per year. This limitation is placed to assure that the fields are not overused which reduces the quality of the playing surface. This balance also aids in reducing the number of repairs that need to be completed due to heavy use.

Renovating existing fields to artificial turf field could result in PARD offering 35-45 tournament weekends each year. With the artificial turf in place, tournaments would less frequently be canceled due to the weather. Tournament directors, teams and participants could depend on events not being canceled, which could result in Denton serving as a destination. Over the past number of years, communities have become very competitive with sports tourism due to the economic benefits of out-of-town visitors.

Converting existing fields to artificial turf would require a capital investment. North Lakes Softball Field Complex would cost an estimated \$900,000 per field to convert to full artificial turf (6 fields x \$900K = \$5.4M). The price would include keeping the existing facilities and fencing, removing all dirt and grass, and replacing the native material with artificial turf. An analysis was provided by AstroTurf in Exhibit A, providing a comparison for the capital and maintenance costs for artificial and natural turf. Based on the comparison, artificial turf is more expensive overall but the number of hours available for use and cost per hour supports the installation of artificial turf.

Artificial turf requires less maintenance than natural grass and it does not need to be mowed. Currently all sports fields maintained by PARD are mowed 2 times per week. The artificial turf

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only requires a ¼ of the water needed for natural grass fields. It is estimated that this could achieve savings of approximately \$75,000 annually. The water is used to clean the artificial turf and to keep the temperatures lower on the surface. Artificial turf does require machinery to broom the turf to return infills to the proper place after heavy use. This normally takes place once every two weeks to once a month, depending on use. Currently, natural grass fields are lined, dragged, fertilized, leveled, and weed treated throughout the year. Frequency depends on the season and type of sports programmed at the time. Artificial turf does not need any of those services to be ready for play. The time saved from maintenance increases the play time on the fields, resulting in a less cost per hour of play and, an increase in recreational use for the community.

Technological enhancements have been made in the artificial turf industry that decreases typical heat effects associated with artificial turf. The traditional shredded black rubber is being replaced with recyclable organic materials. These new materials consist of cork, engineered wood particle, crushed coconut shell infill, and coated sand. Natural infill products enhance the ability to recycle the artificial turf. The infill is removed and put into compost, while the artificial turf is then recycled via plastic.

**CONCLUSION:**

PARD staff will continue to investigate and evaluate options for the conversion of existing fields. In addition, when new fields are planned, staff will obtain comparisons for both natural and artificial turf.

If City Council would like PARD staff to move forward with requesting official quotes to convert baseball, softball and/or soccer fields, staff can complete that task as directed.

**STAFF CONTACT:**

Drew Huffman, Parks Superintendent  
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**REQUESTOR:** Council Member Armintor

**PARTICIPATING DEPARTMENTS:** Parks and Recreation

**STAFF TIME TO COMPLETE REPORT:** 5 Hours



The first name in turf  ...and all that's around it.

## **Comparing Natural and Synthetic Turf Systems**

Costs shown below are based on a 10-year usage cycle.

### **Natural Turf**

|                                                         | 80 Hours per Year   | 100 Hours per Year  |
|---------------------------------------------------------|---------------------|---------------------|
| Initial Construction:                                   | \$300,000.00        | \$300,000.00        |
| Maintenance Cost (\$20,000 - \$30,000/year X 10 years): | \$200,000.00        | \$300,000.00        |
| Remedial Repair:                                        | \$ 5,000.00         | \$ 5,000.00         |
| Major Renovation:                                       | <u>\$ 40,000.00</u> | <u>\$ 40,000.00</u> |
| Total Anticipated Cost of Ownership:                    | \$545,000.00        | \$645,000.00        |
| Total Anticipated Hours of Use:                         | 800                 | 1,000               |
| <b>Cost per Hour:</b>                                   | <b>\$ 681.25</b>    | <b>\$ 600.00</b>    |

### **Synthetic Turf**

|                                                     | 1,100 Hours per Year | 1,500 Hours per Year |
|-----------------------------------------------------|----------------------|----------------------|
| Initial Construction:                               | \$750,000.00         | \$750,000.00         |
| Maintenance Cost (\$2,000-\$5,000/year X 10 years): | <u>\$ 20,000.00</u>  | <u>\$ 50,000.00</u>  |
| Total Anticipated Cost of Ownership:                | \$770,000.00         | \$800,000.00         |
| Total Anticipated Hours of Use:                     | 11,000               | 15,000               |
| <b>Cost per Hour:</b>                               | <b>\$ 90.00</b>      | <b>\$ 53.33</b>      |

As the comparison above illustrates, the usage rate is appreciably greater and cost per event is considerably less with synthetic turf. Today's synthetic turf systems provide performance characteristics unavailable in previous artificial turf systems or natural grass.

System Attributes:

#### **Natural Turf**

- + Natural appearance
- + The smell of grass
- + Lower initial investment +
- More expensive to maintain
- Limited usage
- Weather sensitive
- Labor intensive
- Field conditions deteriorate during the season
- No down time for field to recover from use

#### **Synthetic Turf**

- + Improved safety
- + Improved Durability
- + Unmatched Consistency
- + Playability
- + Unlimited usage
- + Unaffected by weather
- + Minimal maintenance required
- + Unaffected by intense play
- + Usable by every team and the marching band
- + Available for practices and games
- + Possible revenue from additional field rentals
- Greater initial investment

**AstroTurf®: The Industry Innovator for over 50 years!**

**AstroTurf®** is uniquely positioned to help you meet your goal to provide quality facilities, built by experienced contractors and business partners. Our remarkable resurgence as an industry leader and controlled growth is a testament to our entire organization executing our plan and doing exactly what we tell our customers we will do. We're not perfect and there have been challenges along the way. In short, we're only done with the field when you are completely delighted with the field, both technically and visually.

**AstroTurf®** employs three simple principles to guide our business and interface with our clients. They are as follows:

- Provide our clients with a custom solution to using **state-of-the-art products** from the world's leading suppliers and **produced in our own factories**
- Employ **repeatable, precision construction methods** using only experienced and proven installation crews to ensure consistent quality on every field
- Provide **world class customer service and after care** that can't be found elsewhere within the industry

Our reputation for excellence and exceeding our clients' expectations is what has propelled us to where we are today.

Here are a few additional facts about our company:

- **AstroTurf®** is owned by **SportGroup Holdings**, the largest sports surfacing company in the world including **Advanced Polymer Technologies, Rekortan, Melos, PolyTan, Laykold and ProGrass**
- **AstroTurf®** charter member of the **Synthetic Turf Council**
- We are the first company in both the "manufacturer" and "builder" categories to be recognized as a **STC Certified Member**
- **AstroTurf®** is a member in good standing of the **American Sports Builders Association (ASBA)**
- **AstroTurf®** employs **ASBA Certified Field Builders** on staff
- We constructed 200+ fields in each of the last five years; 300+ in both 2015 and 2016
- **AstroTurf®** holds a nationally solicited contract to offer our products through **National - IPA**
- We're bondable up to \$15,000,000.00 per site and have a \$100,000,000.00 capacity
- Our **AstroTurf®** products far exceed the published minimum specifications of the industry
- Our **Dalton, Georgia** based manufacturing facilities are the country's leading producer of synthetic turf products and **the most vertically integrated manufacturer in the industry**
- **AstroTurf®** is the industry leader in **eco-friendly products and practices**

We believe that educating our clients with accurate information is the best approach to helping them make an informed decision. At the end of the day, you will make a decision that best meets the needs of your students' health, the usage demands of your community and your institution's budget.

We are committed to making your experience in this process a positive one. Creating delighted clients is our business. Thank you for considering **AstroTurf®** for your project. We appreciate the opportunity to earn your business.

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