



Budget Office

CITY OF PHILADELPHIA

April 28, 2023

The Honorable Darrell Clarke
City Council President
City Hall, Room 490
Philadelphia, PA 19107

Dear Council President Clarke,

This letter is in response to questions raised by Councilmember Gilmore-Richardson regarding the Proposed FY24 Operating and Capital Budget.

1. Of the “Rentals/Permits” revenue projected in the FDR Park Plan over ten years, how much per year is projected to come from rental/permit fees for the Fields planned for the west half of the park?

As a part of the FDR Park planning process, a third-party consultant provided *estimates of potential revenues* from various earned revenue opportunities in the park once the plan is implemented. These estimates are not incorporated into the city budget as they are preliminary revenue estimates and not yet finalized. The estimates included the following potential sources: picnic rentals, bike and boat rentals, and athletic field and court rentals.

The field permit revenue estimates were based on existing permit fee schedules for PPR assets and the estimated potential revenue for all 12 proposed multi-purpose fields was \$280,000 in year one.

As we near completion of the project, City and PPR leadership will review and adjust revenue sources, as needed.

2. What is the scope of any studies or surveys done by the Parks Dept or under its supervision, on community preferences and needs, used in determining the elements in the whole FDR Park Plan? (Please describe in as much concrete detail as possible: numbers of people/organizations, meetings, time frames, etc. and distinguish what was done by the Parks Dept and what was done under its supervision).

The extensive planning process began prior to COVID-19. Between 2018-2020, nearly 2,300 community members were engaged at over 40 community events. Since the pandemic, from March 2021 through today, we continued to engage over 3,400 community members at over 50 community events. Engagement events have included hands on workshops, public meetings, youth and family events, stakeholder interviews, virtual open houses, walk and talks, etc. *Please see attached list for details.*

3. What guarantees have been made to the youth leagues, or anyone, in terms of access and use of these fields?



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The recreational amenities in FDR Park will follow current PPR policy, which prioritizes local youth teams for permitting the fields and includes waiving the permit fees for local youth sports organizations.

The department will prioritize local access from the surrounding community to the sports fields. To ensure that the community will have access to the fields, PPR will build an advisory group for the park (including the sports fields) made up of frequent park users. The advisory group will ensure that the community has a seat at the table and ensure that fields are being utilized in a manner that promotes equity.

4. What is the approximate cost of rebuilding a typical existing grass multipurpose field to good playing condition?

The cost to install a high-quality grass field ranges from \$500,000-\$750,000. The cost to install a high-quality turf field ranges from \$1.8 million-\$2 million. While a high-quality grass field appears to be less expensive, the utility of a grass field is much lower. To maintain quality, a grass field is only playable a few days a week and cannot be played on after it rains. For every turf field, three grass fields would have to be provided to supply the same amount of playing time for Philadelphia youth.

Due to climate change, we are experiencing wetter seasons, further limiting use of grass fields. Additionally, grass fields require an extraordinary level of ongoing maintenance to maintain quality, costing approximately \$50,000-\$60,000 per year, per field.

5. How many soccer fields, football fields and multipurpose fields does Parks control, in South Philadelphia and also citywide? How many of them do you consider to be in good condition for safe use?

There are 21 public multi-purpose sports fields south of Washington Avenue, where approximately 21,000 children, ages 5-17, reside. Of those 21 fields, only 10 can accommodate regulation football. Of those 10 fields, only 6 are not also overlapping with the outfield of a baseball diamond. Only 1 field is performance turf and striped for football play.

There are 192 multi-purpose sports fields citywide. Fields are in varying degrees of condition but mostly poor condition and upkept through routine maintenance.

6. What is your budget allocation for maintenance of those existing fields?

The total field budget (citywide) is approximately \$800,000, annually.

7. If you have identified any sources of non-toxic artificial turf, meaning free of all PFAS and any other potentially toxic and carcinogenic chemicals, what manufacturer(s) have you identified?

There are a number of vendors producing or initiating lines of turf products that do not contain PFAS, including but not limited to companies Control Products/Play Safe Track and Turf/Sport Turf and Shaw Sports Turf. We have not identified the vendor or product that will ultimately be used in the multisport fields.



8. Please quantify the heat island effect of 40 acres of artificial turf compared to natural grass, in terms of equivalent tree canopy.

The locations of fields proposed for FDR Park are located primarily within the open grass fairways of the former golf course. The high-quality riparian areas, wetland and woodlands are largely being avoided and expanded in the plan.

The albedo of grass is .25 and the albedo of artificial turf is .08. We acknowledge that artificial turf has a lower albedo than natural grass. However, any quantification of urban heat island effect must consider the entire 348 acres of the FDR Park Plan, which include de-paving and removing athletic facilities within the ecological core, large scale ecological restoration and planting over 12,000 new trees.

Artificial turf that is not sited on a stormwater management facility can indeed reach significantly higher surface temperatures than a grass field - 20-50 degrees higher (F). However, all of the synthetic turf fields called for in FDR Park will also function as pervious stormwater management facilities, that trap and cool surface stormwater, before it can enter the restored emergent tidal marsh to which the fields are adjacent.

The existence of the water management systems under the fields allow surface cooling by evaporation, greatly reducing the heat island effect over these fields. A [2021 study by the European Geosciences Union General Assembly](#) found that “During the summer of 2020 on days with a maximum air temperature around 30°C, surface temperature reached 37°C at the cooled standard artificial grass, whereas it reached 62.5°C at the conventional artificial turf. The measured surface temperature for the cooled turf was less than 2°C warmer than the surface temperature at the natural grass site (35.3°C). Evaporation from the cooled artificial turf reached maximum values around 4 mm/d during the summer and was about half of the evaporation from natural grass, whereas evaporation from conventional artificial turf was close to zero. These results show that the system is successful in lowering the surface temperature by evaporation. This reduction in surface temperature is important to maintain playable conditions, but also helps to mitigate the heat island effect. In addition, the water storage below the fields reduces peak discharges during high-intensity precipitation. By combining these functions, the cooled artificial turf fields can help cities adapt to climate change.”

These stormwater facilities under the athletic fields are also important to reduce urban heat islands and improve habitat in the lower Delaware watershed by allowing the capture and cooling of surface flows during heat events. “High temperatures of pavement and rooftop surfaces can heat up stormwater runoff, which drains into storm sewers and raises water temperatures as it is released into streams, rivers, ponds, and lakes. Water temperature affects all aspects of aquatic life, especially the metabolism and reproduction of many aquatic species. Rapid temperature changes in aquatic ecosystems resulting from warm stormwater runoff can be particularly stressful, and even fatal, to aquatic life.

One study found that urban streams are hotter on average than streams in forested areas, and that temperatures in urban streams rose over 7°F during small storms due to heated runoff from urban materials.

Green infrastructure is one option to cool stormwater runoff and improve water quality. It can include the use of downspout disconnections, rain gardens, planter boxes, bioswales, permeable pavements, green streets and alleys, green parking, and green roofs; as well as land conservation efforts.” from [EPA website](#)

9. If you have identified any recycling service that has documented and demonstrated capacity to recycle used artificial turf at a large scale, what recycling service(s) have you identified?



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Recycling Services that are currently recycling synthetic turf:

- APW Enterprises, Pottstown, PA
- Shaw Sports Turf, Dalton, GA