



environmental engineers, scientists,
planners, & management consultants

CAMP DRESSER & McKEE INC.

Ten Cambridge Center
Cambridge, Massachusetts 02142
617 252-8000

October 14, 1992

Mr. Richard Rossi
Deputy City Manager
City Hall
Cambridge, Massachusetts 02139

Re: Danehy Park
Soccer Field Condition

Dear Mr. Rossi:

The purpose of this letter is to address the concerns recently raised by the City Council on field conditions at Danehy Park, with particular emphasis on turf wear and rocks on the surface. At issue, as asked by the Council: Were the fields constructed correctly? Is maintenance being performed properly? Is the problem excessive use? Are there other items which need to be addressed to insure the future use and enjoyment of this facility by the community?

As discussed with you previously, the field conditions question cannot be easily answered. There are many factors which contribute to the present field conditions. Following is a summary of the factors and how they are being addressed.

1. Although it is hard to remember now, the site's former history as a landfill must be kept in mind. Settlement has occurred and will continue to occur which can cause small depressions, uneven grades and resulting poor drainage. The high elevation relative to surrounding grades exposes the site to drying winds and it is more exposed to weather conditions. Methane, which is a gas created in decomposition of refuse, is toxic to plant growth in moderate concentrations and can cause poor, stunted turf or brown outs. We are fortunate on the site to have only minor areas with this problem, mostly outside the field areas.
2. Soccer, as well as football, are very intense field sports, which are very tough on turf grasses. Soccer is played from early spring (late March/early April) until late November, and football is played mainly in the fall until late November. Play on fields in early spring and late fall causes damage to turf with no chance to grow new turf since the normal growing season

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is from late April to early October. The fact that all fields are continually utilized (March through November) doesn't provide any opportunity to get new grass to grow in worn areas. The demand for the fields is extremely high, with fields played on every day with up to six to eight games per day on weekends. Consideration is being given to rotating one field per season out of play for turf rest, renovation and renewal.

3. The original fields were constructed to strict specifications under CDM's supervision. The existing rocky MBTA fills averaging 20' deep in the areas of the fields were covered with 6" to 18" of sandy gravel, then 4" to 6" of sandy loam and finally sod. As can be seen on the softball fields which are less intensely played due to the sport, this technique has provided a successful turf. The soccer fields constructed in the same manner have not been as successful. A major problem is the compaction of the loam caused by soccer. This problem was magnified just after the facility opened in September of 1990. During the first six weeks following the opening of the park, we received over 13 inches of rain (almost three times the normal average for this season). The rain, coupled with the heavy play and new sod, created excessive compaction of the soccer and football fields. Recent compaction tests by CDM agronomists indicated the soccer fields are ten times more compact than the baseball fields. Compaction causes turf to die, reduces potential for turf regrowth and reduces field drainage which further increases compaction. During the first year of maintenance, fields were aerated three times in an attempt to reduce compaction. In the new three-year maintenance program, aeration has been increased to six times per year. Fertilization and overseeding was also increased. The fields have been top dressed with sand and the wear areas top dressed with loam. We are currently investigating a new method of aeration as well as field tilling and reseeding to improve field conditions.
4. Settlement, especially on the lower adult soccer field, has aggravated site drainage. This field has settled in excess of three to five inches along the New Street edge, reducing the cross slope of the field. Underdrains were installed in this field last winter and additional trenching to mix sand subsoil and loam surface was accomplished on all fields this August. This work has somewhat improved field drainage. Underdrains for all fields were included under the Phase II Danehy improvements. But if underdrains are installed, field renovation (by tilling) cannot be accomplished later due to potential underdrain damage.

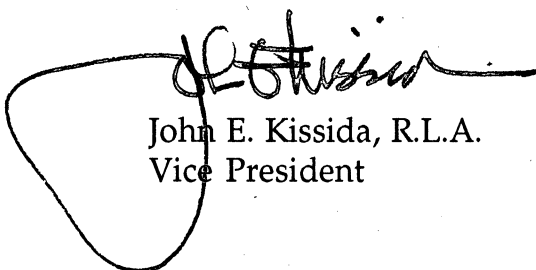
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5. Site maintenance by the Danehy Park Staff and maintenance contractor have been very good. The field condition has actually improved slightly over the past season due to their combined efforts.
6. The rocks found on the surface are not from the landfill or MBTA material. They are from the screened loam or sandy gravel drainage material. The underdrain and trenching brought some of this material to the surface. In addition, field compaction, turf wear (bare spots) and soil freeze/thaw tend to cause stones to migrate to the surface. The park staff and maintenance contractor have been advised of this problem and will make stone removal a part of routine maintenance activities.

As you are aware, this is a very important facility which CDM and myself take great pride in. I would be pleased to meet with you and the City Council to further discuss this issue. Please contact me if I can be of further assistance.

Very truly yours,

CAMP DRESSER & McKEE INC.



John E. Kissida, R.L.A.
Vice President



City of Cambridge

Department of Human Service Programs

51 Inman Street, Cambridge, Massachusetts 02139
(617) 349-6200, Fax (617) 349-6248

M E M O R A N D U M

TO: Robert W. Healy, City Manager
FROM: Paul Ryder, Recreation *PR*
DATE: October 15, 1992
RE: Summary of soccer field usage

As requested, the following is a summary of soccer field usage for the current season beginning April 1, 1992 though November 31, 1992:

1. There are presently fourteen fields used by both youth and adult soccer. Specific fields are Danehy (4), Hoyt (1), Cambridge Common (1), Corcoran (1), Sennott (1), Tobin (1), Russell (2), Lusitania (1), Glacken (1), and Sacramento (1). Based on total number of 615 hours scheduled this year, youth soccer used 70% (431 hrs.), adult soccer used 25% (152 hrs.) and adult ultimate frisbee used 5% (32hrs.)
2. The attached back-up schedule will illustrate that during the spring season, April 1 - June 20, 1992, the Cambridge Youth Soccer Programs used 10 fields per week for practice and 6 fields per weekend for games. The reason all the fields were not used was because of the spring baseball and softball schedule. In addition to youth soccer, the adult soccer program and the adult ultimate frisbee programs used four fields per week for practice and four fields per weekend for games.

During the summer season, July 1 - August 31, 1992, the Cambridge Youth Soccer Program does not schedule games or practice. Adult soccer and ultimate frisbee used three fields per week for practice and three fields per weekend for games. The fall program, which begins September 1 and runs through November 30, 1992, is the season which the soccer fields have the greatest utilization. The youth soccer programs, which includes the high school teams, used fourteen fields per week for practice and five fields per weekend for games. The adult soccer program used one field per week for practice and six fields per weekend for games. In addition to schedule league games the fields at Mayor Thomas W. Danehy Park are also used for neighborhood pick-up games.

DIVISIONS:

Childcare
349-6200

Community Learning Center
349-6363

Community & Youth
349-6231

Council on Aging/Elderly Services
349-6220

Low Income Fuel Assistance
349-6247

Planning & Development
349-6200

Recreation
349-6230

MultiService Center/Homeless Services
349-6340

3. In conclusion, the Recreation Division gives top priority to youth programs in scheduling of games and programs. Adult programs are not scheduled until after all youth programs requests have been satisfied.

Soccer Field Usage 1992

I. Spring Season - April 1 - June 30, 1992

A.) Youth Soccer

1. Weekday use

- a. Danahy Park - 3 fields - Mon. - Fri. - 3:00-6:00
- b. Hoyt Field - 1 field - Mon. - Thur. - 3:00-6:00
- c. Cambridge Common - 1 field - Mon. - Thur. - 3:00-6:00
- d. Corcoran Field - 1 field - Mon. - Thur. - 3:00-6:00
- e. Sennott Park - 1 field - Mon. - Thur. - 3:00-6:00
- f. Tobin Field - 1 field - Mon. - Fri. - 3:00-6:00
- g. Russell Field - 2 fields - Mon. - Fri. - 3:00-6:00

2. Weekend use

- a. Danahy Park - 3 fields - Sat. - 8:00- 6:00 ;
1 field - Sun. - noon - 6:00
- b. Sennott Park - 1 field - Sat. - 8:00- 6:00
- c. Cambridge Common - 1 field - Sat. 8:00- 4:00
- d. Sacramento Field - 1 field - Sat. 8:00- noon

B.) Adult Soccer

1. Weekday use

- a. Danahy Park - 3 fields - Mon, Wed, Fri. - 6:00-8:00
- b. Lusitania Field- 1 field - Tues, Thur. - 6:00-8:00

2. Weekend use

- a. Danahy Park - 1 field - Sat - 10:00 - 6:00; 2 fields - Sun. - 10:00 - 6:00

C.) Adult Ultimate Frisbee

1. Weekday use

- a. Danahy Park-- 3 fields - Tues, Thurs. 6:00 - 8:00
- b. Lusitania Field - 1 field - Mon, Wed, Fri. - 6:00-8:00

II. Summer Season - July 1 - August 31, 1992

A.) Adult Soccer

1. Weekday Soccer

- a. Danahy Park - 2 fields - Mon. - Fri. - 6:00- 8:00
- b. Lusitania Field - 1 field - Mon, Wed, Fri. - 6:00-8:00

2. Weekend use

- a. Danahy Park - 2 fields - Sat - noon - 6:00; 2 fields - Sun. - noon - 6:00
- b. Lusitania - 1 field - Sun. - noon - 6:00

B.) Adult Ultimate Frisbee**1. Weekday use**

- a. Danehy Park - 1 field - Mon. - Fri. - 6:00 - 8:00
- b. Lusitania - 1 field - Tues & Thurs. 6:00 - 8:00

* Note: Youth soccer does not schedule games during the summer season.

III. Fall season - September 1 - November 30, 1992**A.) Youth Soccer****1. Weekday use**

- a. Danehy Park - 4 fields - Mon. - Fri. - 3:00- 6:00
- b. Lusitania Fields - 1 field - Mon. - Fri. - 3:00- 6:00
- c. Cambridge Common - 1 field - Mon. - Fri. - 3:00- 6:00
- d. Hoyt Field - 1 field - Tues. - Fri. - 3:00 - 6:00
- e. Corcoran Field - 1 field - Mon, Tues, Fri. - 3:00- 6:00
- f. Sacramento Field - 1 field - Tues, Wed, Fri. 3:00 6:00
- g. Sennott Park - 1 field - Mon. -Fri. - 3:00- 6:00
- h. Russell Field - 2 field - Mon. -Fri. - 3:00- 6:00
- i. Tobin Field - 1 field - Mon. -Fri. - 3:00- 6:00
- j. Glacken Field - 1 field - Mon. -Fri. - 3:00- 6:00

2. Weekend use

- a. Danehy Park - 3 fields - Sat. - 8:00 - 6:00; 1 field - Sun. - 8:00 - 4:00
- b. Sennott Park - 1 field - Sun- 8:00 - 4:00
- c. Cambridge Common - 1 field - Sat. 8:00 - 6:00

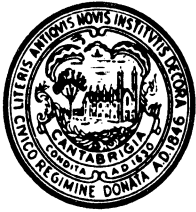
B.) Adult Soccer**1. Weekday use**

- a. Danehy Park - 1 field - Mon, Wed. - 6:00 - 7:00

2. Weekend use

- a. Danehy Park - 1 field - Sat. - noon - 6:00;
3 fields - Sun. - 10:00 - 6:00
- b. Lusitania Field - 1 field - Sun. - 10:00 - 6:00
- c. Glacken Field - 1 field - Sun. - noon - 4:00

30.



CITY OF CAMBRIDGE

CAMBRIDGE, MASSACHUSETTS 02139

TEL 349-4300

FAX 349-4307

EXECUTIVE DEPARTMENT

ROBERT W. HEALY

City Manager

RICHARD C. ROSSI

Deputy City Manager

October 19, 1992

To the Honorable, the City Council:

In response to questions asked by the City Council at the October 5, 1992 Council meeting regarding Danehy Park soccer fields and soccer field scheduling throughout the City, please find attached reports from Camp Dresser & McKee Consulting Engineer John Kissida and Recreation Director Paul Ryder.

Very truly yours,

A handwritten signature in black ink, appearing to read "Robert W. Healy", is written over a horizontal line.

Robert W. Healy
City Manager

Attachments

Consent Agenda # 30

S-82

Information regarding Danehy Park
soccer fields and soccer field
scheduling throughout the city.

In City Council,

Oct. 19, 1992

Placed on file