



environmental engineers, scientists,
planners, & management consultants

CAMP DRESSER & McKEE INC.

Ten Cambridge Center
Cambridge, Massachusetts 02142
617 252 0000

December 12, 1990

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

Danehy Park -
Soccer Field Drainage

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Dear Mr. Rossi:

As discussed with you at a recent meeting, we have reviewed the drainage problems on the lower two soccer fields during several site visits with different specialists, including drainage engineer and soils scientist/agronomist. Based on these site meetings and evaluations, we offer the following observations:

1. Grades of the fields were checked by CDM against the drawings and appear correct. The fields are graded with minimum 1% slopes internally as required to minimize runoff off-site toward Waltham Fruit and New Street. This means that the ideal field grading by crowning (high point along the center) could not be accomplished; and therefore the fields will take slightly longer to drain.
2. Grades along the swale at the base of the fields are close to grade, but some high points and low spots have reduced drainage flows. The partial sodding of the swale and wetness due to above average rains have prevented mowing in the swale, further impeding drainage of the area.
3. Playing on the wet fields has caused some compaction, thus further aggravating the drainage situation. Aeration and top dressing with sand in the spring, as required by the maintenance program will be important to insure future field vitality and drainage.
4. The site sand and loam depths are constructed correctly and should provide for proper site drainage under normal seasonal rain conditions. Late September and October experienced significant rain in the range of 12± inches which is almost 3 times the normal rainfall for the period. This excessive rain, coupled with new turf (with a not fully-developed root structure) and cool days and nights (not allowing the turf to utilize water or evaporation to occur) significantly contributed to the poor field drainage conditions observed.
5. We have reviewed the situation and have ordered the contractor to regrade the swale. He is waiting for frozen ground to minimize field disturbance. We have also asked the contractor for a price to further excavate the swale and fill it with an underdrain and crushed stone. This would increase field drainage and not require mowing of the swale. A second cut-off underdrain between the two fields is also being evaluated.

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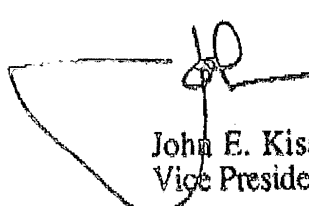
We know the importance of these soccer fields and feel they are well constructed. Under normal rain conditions and proper turf development they should function properly. It is unfortunate that excessive rain and play conditions caused these problems. As you are aware, the former landfill has significant drainage problems and site limitations. It is important that we keep these in mind when evaluating the current conditions.

We (our agronomist, resident engineer, and myself) would be happy to meet with you and other interested individuals to further discuss this matter.

If you have any questions, please contact me.

/ truly yours,

CAMP DRESSER & MCKEE INC.



John E. Kissida, R.L.A.
Vice President & Project Manager

JEK/rar

cc: Paul Ryder, Recreation Director



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EXECUTIVE DEPARTMENT
ROBERT W. HEALY
City Manager

RICHARD C. ROSSI
Deputy City Manager

February 25, 1991

To The Honorable, The City Council:

In response to Awaiting Report Item No. 32, regarding drainage on the lower soccer field at Danehy Park, please find attached a report from John Kissida, Project Manager and Vice President of Camp Dresser & McKee Inc. regarding this issue.

Since the date of the letter, the Contractor has completed the work outlined in item 5. The swale was excavated and filled with a crushed stone and pipe underdrain in January while the ground was frozen (in order to minimize disturbance). The swale has also been regraded. Turf repair and the installation of a second cut-off underdrain will take place this Spring. Additionally, the field area will be aerated, slice seeded and top dressed with sand, as soon as weather permits in the Spring.

Very truly yours,

Robert W. Healy
City Manager

RWH/mev
attachment

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CONSENT Agenda # 6 5-287

Awaiting Report Item Number 32
regarding drainage problems at Danehy
Park.

In City Council,

February 25, 1991

Placed on file