

Summit Recreation Master Plan

City of Summit
Union County, New Jersey
January 2006



Prepared by:

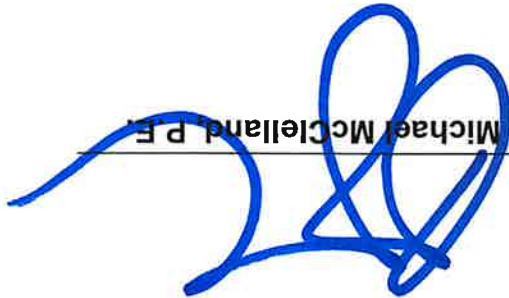
City of Summit

Union County, New Jersey

SUMMIT RECREATION MASTER PLAN

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1. PREFACE

In response to the growing concern over the diminishing quality of athletic fields and the limited recreational opportunities within the City of Summit for the City's residents and sports organization, the Summit Board of Recreation merged forces with the Board of Education to review the existing conditions of recreation in the City of Summit and provide recommendations to address these concerns. The two boards created a "Joint Committee" comprised of representatives from both the Summit Board of Recreation and Summit Board of Education. The Joint Committee has already reviewed some specific concerns regarding the state of recreation within Summit and has begun to address the issue of maintenance of athletic fields and park facilities, proposed expansion of existing recreational facilities and the development of a "Field Access Protocol" for scheduling athletic user fee policy events and field utilization.

The "Summit Recreation Master Plan" is a formal study of recreational needs of the City of Summit and the application of projected needs to identify current, short term and long term recreational goals to be utilized as a planning tool to ensure that adequate recreational opportunities are afforded to the Summit community.

The process of data collection for the preparation of this report has been provided by and shared by many organizations within the City. CME Associates would like to thank all those involved in the preparation of this document:

Summit Joint Committee
Summit Board of Recreation
Summit Board of Education
Summit Recreation Department
Summit High School Athletic Director
Summit Middle School
Summit Trail Committee
Summit Senior Center
All of Summit's Youth Athletic Organizations
Summit Tennis Association
City of Summit Professional Engineer
Summit City Common Council
Dr. David Minner, Iowa State University
New Jersey Recreation and Parks Association

CME Associates acknowledges that portions of the text of this report were drawn from the Report and Recommendation prepared by the "Joint Committee of Summit Board of Recreation and Summit Board of Education on Proposal to Improve Washington and Tatlock Fields" dated April 8, 2004.

Special thanks goes out to the concerned residents of the City of Summit who attended the public meeting process of the Master Plan and provided opinions, concerns, recommendations and most of all insight into their thoughts of what the well rounded recreational character of the City should include.

2. INTRODUCTION

A. National Recreation and Parks Association Recommendations

NJ Statewide Comprehensive Outdoor Recreation Plan (SCORP)

Municipalities are the major sources of daily recreation programs for residents, representing the concept of close-to-home recreation. Communities are responsible for the recreational programming, and special activities for various age groups, as well as providing and maintaining the space for which it can be programmed. As development builds out, communities recognize open space preservation and recreation as imperative components in community planning. As a part of the planning process, open space preservation adds to the economic and social value of an area, protecting recreational opportunities and enriching the quality of life within a community.

The SCORP is designed to highlight the main issues of recreation planning and predict recreational needs and facilities at the regional and state levels. It is also intended to outline the primary goals, and suggest possible strategies to attain those objectives. In doing so, the SCORP can be used to parallel the needs at the local scale, by comparing regional standards and recommendations. The essential goal of the SCORP is to provide a system of guidelines to all levels of government in order to acquire, protect, develop, and maintain outdoor recreational resources.

According to the New Jersey Department of Environmental Protection (NJDEP), "the amount of public parkland and number of recreational facilities has never been enough to satisfy past and current populations. Land preservation and the development and maintenance of a park and recreation infrastructure to support New Jersey's population will be an essential feature of the State's smart growth efforts." The value that parks and open space provide, whether it is aesthetic, environmental, social or even economic, is immeasurable when it comes to maintaining the high quality of life that New Jersey enjoys.

I. Policies and Priorities

The issues and policies outlined in the SCORP articulate the State's vision of open space and recreation in New Jersey over the next five years. They are the result of the public participation and resource assessment process. There were seven issues and associated policies, two of which affect the Summit Recreation Master Plan: Recreation and Stewardship. These policies express that the state and local governments must continue to fund recreation facilities and various park and recreation projects, and that the operation and maintenance of public open space and recreation areas need to be maintained.

To ensure successful implementation of the above policies, the selection of project priorities is a crucial feature of the SCORP. Through the identification of priorities, the issues presented can be resolved. For the City of Summit, three key priorities must be addressed. The funding for preservation of open space continues to be the focus of the

State's funding priorities. While the development of park and recreation facilities is an important part of New Jersey's recreation efforts, it is the conservation of open space that is central to the preservation of natural resources.

Furthermore, the SCORP urges the continuation of the enforcement of "smart growth" policies. "Smart growth" policies channel growth to existing urban and regional centers and established communities to preserve open space. Park and recreation projects support smart growth efforts by improving the quality of life in developed and developing communities.

Lastly, a balance between open space preservation and recreation facilities must be maintained. In order for a community to sustain a successful outdoor recreation program, there must be an even amount of aesthetics and leisure opportunities. There must be a compromise between the way the area is used and protected.

An Open Space and Recreation Plan expresses a municipality's idea of what their open space and recreational opportunities should resemble. It should establish the rationalization for conservation, and construct the foundation for which efforts will be focused. It allows for the planning and implementation of the ways in which these recreational areas are utilized and maintained.

B. Population and Demography of the City of Summit

The City of Summit, located in Central New Jersey within Union County, covers 6.1 square miles. The City contains a diversity of natural resources and developed, populated areas. It makes up nearly 5.9% of the land mass and 4.1% of the population of Union County (103 sq. miles, population 521,077). Summit currently has a population density of 3,464 people per square mile. Similarly, Union County has a population density of 5,059 people per square mile, third highest in the state of New Jersey.

The City of Summit is located just off the Passaic River in northern Union County, and is bordered to the south by the Borough of Mountainside and Berkeley Heights Township, to the west by the Borough of New Providence and Chatham Township of Morris County, to the east by the Township of Springfield, and to the north by Chatham Borough in Morris County and Millburn Township in Essex County.

The City of Summit has experienced increasing population growth for over the past 2 decades. From 1990 (19,757) to 2000 (21,131), Summit experienced a population increase of 6.9%. The census predicts that from 2000 to 2010, the City will experience a projected 4.5% growth rate.

Current population statistics, based upon the 2000 census, identifies a population of 21,131. The City population is increasing and the need for additional recreational areas and refurbishing of existing facilities is supported by aging existing recreational facilities, an increasing population of recreational attendees, changing recreational facilities

safety standards (U.S. Consumer Product Safety Commission-C.P.S.C., National Playground Safety Institute-N.I.P.S.I. and National Recreation and Park Association-N.R.P.A.), and national accessibility standards (Americans with Disabilities Act-A.D.A.).

1. Summit's Active Recreational Deficiencies

For the past fifteen (15) years, Summit has been burdened with the responsibility of providing City residents with adequate recreational facilities and opportunities despite insufficient existing facilities, limited expansion possibilities and diminishing existing field conditions. Like many other towns, Summit is a fully developed community with limited viable options to create additional playing fields.

The heavy demand for the playing fields coupled with the limited field inventory has resulted in the overuse of the available fields. Over the past several years, the Board of Recreation has not been able to satisfy all requests for field access from sports organizations.

Compounding these problems has been the bifurcated jurisdiction arising from the separate ownership and responsibility for the fields between the Board of Education and the Board of Recreation, which generates difficulties in the scheduling, maintenance and operation of the fields.

A related problem arising from the separate responsibility for the fields has been maintenance. As previously noted, the high demand for playing fields and the limited number of fields has resulted in the available fields being constantly in use. While overuse accelerates wear and tear on the fields, the deterioration of the fields cannot be arrested by establishing a program of rotating fields out of service to permit them to rest and recover due to the limited field inventory. Further, the limited number of fields makes it very difficult to remove fields from service for prolonged time periods in order that significant restoration and rehabilitation projects can be accomplished.

Maintenance by the Board of Education has been largely limited to site-specific work by staff associated with the schools adjacent to the fields. Instead of establishing a regular maintenance routine, the Board of Education has tended to undertake periodic capital improvement projects at their fields when conditions at said fields degrade to a point at which complete renovation is required. This is illustrated by the fact that Franklin School field was removed from service in May 2005 due to its condition. Similarly, Washington School field has been in a serious degrading condition for years.

While the Board of Recreation did have a maintenance program for park fields, until 2002 it was limited in scope and irregular in application. Before 2002, the Board of Recreation maintenance program was neither comprehensive nor supported by the necessary expertise, experience or funding for it to be effective. Maintenance work was commonly deferred or neglected in favor of other competing priorities. As a result, the field maintenance was often more reactive than proactive.

In acknowledging the need to improve maintenance, the Board of Recreation hired a Maintenance Project Manager with the expertise and experience to develop and implement maintenance plans for the Recreation Department's playing fields and other facilities. In 2002-03 the Recreation Department created a comprehensive maintenance plan that addressed each of its playing fields and facilities on an individual basis, specifying the maintenance that should be performed on a monthly basis and projected the amount of time required and labor cost, as well as the cost of materials for each activity. Consistent with discussions that were then ongoing with the Board of Education for the Board of Recreation to assume responsibility for maintenance of school fields, a comprehensive maintenance plan was also prepared for all Board of Education fields.

The Board of Recreation's comprehensive maintenance plans for its fields, and the Board of Education fields, were used to formulate budget proposals to the City seeking the funds necessary to implement the maintenance plans. The Board of Recreation submitted budget requests seeking additional funding for field maintenance to the City in 2003 for the 2004 fiscal year and in 2004 for the 2005 fiscal year. Regrettably, due to budgetary constraints the City was unable to provide the funding requested by the Board of Recreation to improve maintenance of playing fields and other facilities.

As part of its efforts to improve maintenance of playing fields, in 2003 the Board of Recreation proposed a policy under which the City would charge a user fee to each registered participant in any organized recreation or youth athletic program using any playing field in Summit. In 2004 the City, as well as the Board of Education approved this program and a twenty-dollar (\$20.00) fee per registrant was instituted. The user fees collected are used to fund or supplement additional maintenance activities on Board of Education and Board of Recreation playing fields.

With the goal of improving the maintenance of playing fields and other green spaces in the City while achieving the greatest economy of cost through shared services, in 2005 the City of Summit merged the maintenance functions previously performed by employees of the Recreation Department into the City's Department of Community Services. As of January 2006, the Department of Community Services assumed all Recreation Department employees, equipment, maintenance functions and budgetary responsibilities.

In 2005, the Board of Education entered into negotiations with the City of Summit with regard to an agreement under which employees of the City's Department of Community Services would perform the operational maintenance of Board of Education fields. As of the date of this plan, the terms of an agreement between the Board of Education and the City have not been finalized.

The constant use of the available athletic fields has inhibited their regular maintenance. Even with that limitation, however, the combined maintenance efforts of the Board of Education and Board of Recreation are still inadequate to provide adequate field conditions and field availability to meet the demand of Summit's active recreational community.

The City of Summit has been impacted to some extent by increased development. The Summit Board of Recreation is charged with the task of providing safe and ample recreational facilities to the community. To address these recreational concerns, the

Owing to the fact that the City of Summit is the second smallest in land mass in Union County and has experienced increased development over the last several years, it is apparent that the examination of current recreational facilities and playing fields is warranted to address the growing resident population of recreationally active children and adults.

III. General Overview of Summit's Recreational Opportunities and Demands by the Community

Unlike the ability to review and study historic registrant data, specific team schedules and required playing conditions of the active recreational community, the passive recreational community affords none of these pre-requisites for the purpose of determining a need. In its effort to create a rational and economic method for measuring the community's passive recreational demand, the Board of Recreation prepared and distributed a recreational survey to each of the 8,100 households in Summit, to determine the level of demand for passive, as well as the level of support for active recreation within the City.

Since the Board of Recreation has the responsibility of scheduling active recreational events on a regular and daily basis, it is easily recognizable that the community's demand for athletic fields exceeds the City's supply. However, another area of recreational demand, that is not so easily discernable, is the opportunities and demands of the passive recreational community. Like a fragile ecosystem, community parklands not only support the obvious and most intense uses of the active community, they also provide opportunities, planned and unplanned, for the passive community. The daily use of open lawn areas, shuffleboard and horseshoe courts, existing woodlands, picnic areas, play lots, trails, sidewalks, footpaths, even just a simple bench located in a park or a school, are opportunities for the passive recreational community.

II. Summit's Passive Recreational Deficiencies

Like other communities, Summit has experienced exponential growth in scholastic and youth sports. Exclusive of students engaged in scholastic sports programs, in 2003-2004 a total of 5,213 boys and girls used the City's playing fields as participants in youth sports, recreation and other programs. In all, last year Summit's children filled the rosters of 190 teams that had 6,052 games, scrimmages and practices on the City's playing fields. This growth of sports participation is the product of many factors, including the increasing number and size of institutional sports leagues and programs; the rapid expansion of girls sports programs; the growing interest and demand for children to participate in multiple sports during the same season and the trend of sports to expand their practices and game play beyond the traditional season of play. These and other reasons account for a growing demand for playing fields in Summit that exceeds the capacity of the City's present existing inventory of fields.

Board of Recreation retained CME Associates to review Summit recreational facilities and their conditions, future recreational facilities and land acquisition possibilities, facilities coordination, required maintenance and personnel to ensure safe, clean and appropriately planned recreational opportunities for the residents of the City.

In 2003, the City of Summit was responsible for providing active recreational opportunities and athletic field availability for 4,462 registrants. The registrants represent a total of 27 different sports league categories ranging from recreation teams to recognized and organizationally sponsored athletic teams, which conducted a total of 3,824 planned sporting events on Summit's athletic fields. It is not only the active athletic community that utilizes the field areas, the open lawn areas are utilized for festivals, graduation ceremonies, community events and sport camps.

A review of existing recreational site locations identifies a total area of approximately 143 acres consisting of nine (9) City owned parks with a total of 85.3 acres and eight (8) school properties with a total of 57.6 acres. The National Recreation and Parks Association (NRPA) has recommended that a Municipality, Borough or City containing approximately 10 acres of parkland and open space for every 1,000 people would adequately meet the community's recreational demand. Of course there is a great deal more in determining what the actual recreational supply is for any one community, as nevertheless this formula has been applied in further detail for the Summit community, as indicated in section 2C of this report. If we look at Summit's population for the year 2000 with 21,000 people and the minimum NRPA recommended acreage of parkland, we realize that 210 acres of parkland/open space is needed when only 142.9 acres is currently provided.

As can be seen from the above, of the land owned by the City for recreation, there is very little open space available. Thus to satisfy the demands of the citizens, the recreational facilities provided must reflect the desires of the community and must lend themselves to cross-utilization by different sports and non-sports organizations. When looking towards the future for additional field opportunities, serious consideration must be given to "multi-use" fields due to the limited area of the existing and potential park and school lands.

Upon a thorough evaluation of existing park inventories and an extensive needs assessment analysis specific to the Summit community, CME Associates has produced a list of short-term and long-term goals for the City to review and prioritize the response to the current and future recreational demands.

C. Guideline for Recreational Planning (A Preliminary Overview)

1. Level of Service (LOS)

The following primary needs assessment for the City of Summit is based on the NRPA's statistical guidelines for determining a Level of Service (LOS) and requires a statistical analysis of the recreational facilities available within the community. The LOS had been employed as a rational method to determine the recreational opportunities available to all members of a community, in order to assess the quality of living.

As systems developed further, a spatial standard of 10 acres of parkland per 1000 people in the community was developed as the best possible allocation of open space acreage a recreational designer for communities could feasibly design for. This standard was then further expanded in order to compare specific types of parks, based on acreage and facilities contained therein. However, it was acknowledged that 10 acres per 1,000 people was an optimal number, only achievable in a perfect set of circumstances, so a range was developed for park acreage to fall within 6.25 – 10.5. The LOS has developed from similar concepts in product marketing and social trend statistics, in order to be more responsive to communities during times of limited funds and differing public attitudes.

The Level of Service method is a planning tool that provides a means to realistically calculate land requirement minimums and facilities needed to support community activities in terms of acres per population. While some argue that these formulas are too definite, they still provide a basis for communities to measure recreational adequacy. The contents of this proposal have been developed utilizing this widely recognized and accepted rational method to determine and set a benchmark for the recreational opportunities currently afforded by the City of Summit.

1. Applicability

As available land reaches unmistakably low numbers in our state, land values and development costs increase dramatically. Although these facts are unmistakable, especially in New Jersey, our State has been ranked second for the acquisition of property for open space preservation, recognizing that open space preservation is one of the most effective methods of environmental protection.

As with many Counties in the northern half of the State, Union County has one of the highest populations. What is even more alarming is that Union County, the second smallest County in the State in terms of square miles, has the third highest population density. Based on Summit's current growth trends, the population of 21,000 is expected to reach over 22,000 by the year 2010. Due to this reality, the procedures for planning for open space and recreational opportunities must begin at the local level.

2. Eight Step Process

“The Level of Service is a needs driven, facility based and land measure formula.” (Park, Recreation, Open Space and Greenway Guidelines). It is a statistical analysis of the recreational facilities within a community used to determine the recreational opportunities that are needed in the future. This analysis consists of eight (8) steps, each that lead to the existing total number of acres per 1000 people. The initial three (3) steps lay the foundation for the process of discovering the Level of Service that an individual recreational facility provides for the community. The final five steps are the statistical means to determine the area or acreage per 1000 people actually provided by the current recreational opportunities found in the City of Summit. The steps for determining LOS are clearly described below: [refer to Appendix - A]

1. **Park Classification** – This initial step requires the categorization of each type of park based on size and activities it offers. The size of each park is calculated by acreage, which will factor into the final equation of determining how much acreage per 1000 people each type of park provides. Activities are based on the recreational diversity one park will offer, the different types of activity within each park, and how or if they relate to one another.

Classifications:

Mini-Park	School Property	Athletic Field
Glenside Fields	Brayton Elem.	Cornog Fldhse.
Mabie Park	Franklin Elem.	Comm. Pool
	Jefferson Elem.	Rec. Center
	Lincoln Elem.	Wilson Park
	Washington Elem.	
	Middle School	
	High School	
	Wilson Elem.	

2. Recreation Activity Menus – Requires the categories of parks created in the first step to be itemized, based on the type of field or court uses, or other recreational facilities that are present in each type of park.

Activity Menus:

Facility	Mini-Park	School	Special Use	Athletic Field
LL/ Softball Field	~	6	1	4
Sr. Baseball	~	1	~	1
Full-Size Soccer	1	2	~	4
Short-Sided Soccer	1	1	1	3
Football	~	1 (Practice)	~	1
Field Hockey	~	1	~	~

Facility	Mini-Park	School	Special Use	Athletic Field
Lacrosse	~	3	~	1
Running Track	~	2	~	2
Basketball	2	2	2 (1 indoor)	2
Tennis	~	3	3	4 (6 closed)
Platform Tennis	~	~	~	2
Handball	~	~	1	~
Tot Lot	2	5	3	~
Swimming Pool	~	~	Community	~
Golf Course	~	~	Par 3	~
Picnic Areas	1	5	1	1
Bocce	2	~	~	~
Horseshoe	1	~	~	~
Shuffleboard	~	~	~	1
Restrooms	~	~	4	2

3. Open Space Size Standards – Classifies each of the pre-determined park categories by their minimum size, this is based on the smallest park within each type of park category.

Park Classification	Minimum Size Standard
Mini-Parks	1 Acre
School Properties	3 Acres
Special Use Areas	6.5 Acres
Athletic Fields	15 Acres

4. Present Supply – A statistical measurement of the expected use of a facility, per day, based on the number of participants involved, as well as the amount of days the facility is available to use. The calculated number is expressed in terms of visits available per season, per facility.

Recreational Facility Supply (RFS) = #Visits Available/Year/Unit

Example: Football Field, (Fall)

Expected Use = 115 Individual Person Visits/ Day/ Field
 Availability = 67 Days/ Season/ Field
 $115 * 67 = 7705 \text{ Visits Available/ Season/ Field}$

5. Expressed Demand – Determining this factor involves gauging the amount of times each person is involved in an activity. Simply put, it is the amount of people participating in an activity per year and how many times that activity takes place, over the amount of people that are eligible to participate in that activity, taken from Census information for the City of Summit. The statistical number is then expressed in terms of visits required per person, per year.

Recreational Facility Demand (RFD) = #Visits Required/Person/Year/Unit

Example: Football Field, (Fall)

Summit Recreation Football
 Recreation Participation = 221 People/ Yr
 Participation Frequency = 137 Visits/ Person/ Yr
 Total Possible Participants = 670 People
 $(221 * 137) / 670 = 45.19$ Visits Required/ Person/ Yr

High School Football
 Recreation Participation = 70 People/ Yr
 Participation Frequency = 73 Visits/ Person/ Yr
 Total Possible Participants = 439 People

$(70 * 73) / 439 = 11.64$ Visits Required/ Person/ Yr
 Total Football Field Demand $(45.19 + 11.64) = 28.42$ Visits Required/ Person/ Yr

6. Minimum Population Service Requirement – This statistic represents the minimum amount of people that are served by each type of park facility. It compares the supply of a facility versus the demand for the facility.

Minimum Population Service Requirements (MPSR) =
 Minimum # of Persons Served/Year/Unit

Example: Football

Recreation Facility Supply = 7705 Visits Available/ Season/ Field
 Recreation Facility Demand = 28.42 Visits Required/Person/ Season/Field
 $7705 \div 28.42 = 271$ People Served/ Season/ Field

7. Level of Service by Park Classification – This calculation requires the service requirement numbers evaluated previously, to be divided per 1,000 people. That number is divided into each park classification by acreage, illustrates the amount of acreage per type of park servicing 1,000 people. These figures are represented in acres per 1,000 people.

Level of Service by Park Classification Formula:
 $\text{Park Acres/Classification} \div \text{Total Population Served} = \text{Level of Service by Classification}$
 1,000 People

Activity	Population Served
Baseball/Softball	459
Field Hockey	590
Football	271
Lacrosse	897
Soccer	559
Basketball	581
Tennis	928
Total Served	= 4,285

8. Total Park and Recreation System Level of Service – This final step is the sum of all Levels of Service for each type of park classification. It represents the goal for which the above analysis is performed, the total Level of Service for all the recreation facilities of a community.

Total Park and Recreation System Level of Service Formula:
LOS Class 1 + LOS Class 2 + LOS Class 3 + LOS Class 4 = Total Level of Service

3. L.O.S Conclusion

Park Classification	
Mini-Park	0.23 Acres/1000 People
School Properties	0.70 Acres/1000 People
Special Use Park	1.52 Acres/1000 People
Athletic Fields	3.50 Acres/1000 People
<u>Level of Service</u>	
5.95 Acres/1000 People	
<i>Total (2003) Level of Service:</i>	

As previously mentioned, the National Parks and Recreation Association recommends 6.25-10.5 Acres per 1000 people for total close-to-home space. Currently, the City of Summit has 140.8 acres of open space, including school properties. As of the Census taken in 2000, the City of Summit has a population of 21,131. At 10 acres of open space for every 1,000 citizens, Summit requires 211.31 acres, 50% more than it currently possesses.

These eight steps represent a very basic analysis of park facility surplus or shortage, as a statistical description of a community's demand versus their supply. The Level of Service stands as an appraisal of the effectiveness of the park system's delivery of recreational opportunities to community members. What must be remembered is that the Level of Service represents a minimum of need within a community, and that the Level of Service system is based on a series of standards and not regulations.

D. Goals and Objectives of the Recreational Master Plan

The Recreation Master Plan is a planning guide to provide a system for active and passive recreation for existing and future Summit residents. A plan has been developed which defines the field and facility needs. This plan will identify opportunities of improvement to recreation facilities and prioritize capital expenditures through a needs assessment and conceptual improvement plan.

Plan objectives include:

- a) Identify, categorize and review the condition of existing City recreation facilities by location, including building facilities.
- b) Evaluate for joint use the facilities of the City, Board of Education and County facilities within the City.
- c) Map existing parks, schools and City owned land used for recreation using geo-referenced, computer based, aerial photography.
- d) Review City recreation programs and general facility usage and establish a needs assessment.
- e) Identify fields and facilities to be converted, relocated, renovated or built for the purpose of increasing the City's recreational inventory. Prepare and develop conceptual construction cost projections for all facilities.

E. Project Phases of the Recreational Master Plan

Parks, open space and recreational facilities are important components related to the quality of life within a community. This document represents a comprehensive Recreational Master Plan, which has been developed as a result of the City of Summit's growing concern over providing quality recreational facilities and its ability to satisfy the varied and increasing recreational demands currently experienced within the populace. The Recreational Master Plan will investigate the past and present demands placed upon the City's existing facilities, evaluate those facility's ability to respond to current needs, and in a proactive fashion, explore statistical data to evaluate the anticipated future recreational trends and future needs for the Summit community.

In reaction to the previously stated concerns, the Summit Board of Recreation set out to assess the current state of the City's parks and recreation areas and develop a plan of action to meet the needs of its citizens. CME Associates developed a three phase analysis for the City of Summit by analyzing the existing park inventories, creating a unique and tailored needs assessment strategy, and developing conceptual improvement plans, all of which will be discussed in greater detail below.

I. Existing Parkland Inventories

The Existing Parks Analysis is a review and inventory of current facilities utilizing available aerial mapping to identify the specific park site boundaries, recreational features and specific site amenities. This concept of generating a geo-referenced, base map establishes consistent data quality and compatibility with other geo-referenced datasets that will be utilized in the concept phase of this project.

Following the preparation of the maps, CME staff visited each park site to observe and update site features, in order to confirm the accuracy of the mapping. A written description for each site was prepared describing the current site location, activities and amenities, as well as the estimated usage and general conditions via visual observations.

After a thorough analysis of the City's existing recreational facilities, it has been determined that the City of Summit contains nine (9) City parks, including the community pool and golf course, and eight (8) public schools which currently provide recreational and open space areas for the community. Based on the recognition of these shared municipal resources and services, it is imperative that the open space and recreational contribution of the City's public schools be included in this recreational assessment. It was also recognized that facilities exist within the community that are not parks in the traditional sense, but are utilized for a specific public function, such as the Summit Community Pool, Golf Course and Cornog Field House. These recreational facilities have been inventoried in this recreation master plan in terms of describing the existing park features and amenities, the condition of the site amenities and general usage estimations of the facilities.

Further, located within the City's boundaries, are four (4) Union County Parks providing a regional level of recreation to the surrounding municipalities in the County in addition to the parks and schools within the City. The largest of these County Parks is the Watchung Reservation, located within the southern portion of Summit. The Reservation offers a variety of passive recreational opportunities including horseback riding, complete with stables and riding trails, as well as a variety of trail routes. Other regional County Parks within Summit include Bryant Park, Hidden Valley Park, and the Passaic River Park, all offering a host of passive recreational opportunities and amenities, as well as active winter activities. However these County facilities do not play a significant role in the organized active recreational opportunities offered in Summit. Although the County Parks occupy a portion of the City of Summit and provide open space and alternative recreation opportunities for the region, they have a negligible impact on the active recreational needs of the City of Summit.

Ultimately, the Existing Park Analysis provides an inventory of the current recreational supply and opportunities for expansion, which will be utilized in the Needs Assessment phase of this report.

II. Recreational Needs Assessment

The Needs Assessment is an evaluation of the current supply of recreational facilities and the current demand for recreational opportunities in the City of Summit. Its primary purpose is to compare the City's existing recreational facilities inventory and the existing demand for the use of those facilities based on the number of users, participants and registrant enrollment. This effort requires a review of how Summit's residents utilize the existing facilities to determine a current level of needed facilities. The Needs Assessment also seeks to forecast future usage of facilities based upon growth patterns, recreational/sports trends and projected participant increases.

The Needs Assessment will serve as one basis for making recommendations for planning priorities to meet current and future demands for active and passive recreational opportunities in the City of Summit.

Recreational needs, both active and passive will be assessed as part of the Master Plan process. Because the Needs Assessment is a central component of the Master Plan process, additional input and dialogue on the issue was solicited from the community to foster a better understanding of the public sentiment for use in the evaluation process. Input from the community was obtained through public meetings, meetings with sport groups and other recreational organizations, a recreational survey administered by the Board of Recreation.

It is important to recognize that the Needs Assessment process is not a precise science. This is particularly true with regard to existing athletic playing fields, an area of critical concern to Summit. Beyond the obvious concerns of participants, teams, games, practices and available space, the Needs Assessment considers scheduling limitations, the prospect of inclement weather, field size, duration of games and other considerations, such as the age and size of the participants, as well as the practical aspect of age-appropriate activity requirements. The Needs Assessment also takes into consideration field maintenance as a critical requirement of playability, including the provision for field rest and restoration.

Unfortunately, there is no single formula that can be employed to calculate with any definitive precision the specific number of fields Summit needs now or in the future. Two (2) methods, the "Events Drive" Approach Analysis and the "Iowa State University Study Approach", have both been implemented, utilizing current athletic registrant data, to develop the "needs assessment".

For the purpose of obtaining legitimate projections of future athletic registrant populations, two (2) sources were utilized. One analysis was based on Summit census data and one analysis was based on each athletic league's anticipated growth. CME Associates has applied projected population increases for 2007 and 2014 (10 year growth) to the developed formulas. Enrollment data from the Board of Education was also considered with regard to participation and growth projections.

The "Iowa State University Study Approach" conducted by Dr. Minner is an analysis to determine the current athletic recreational facility deficiencies and predict future facility needs based on athletic field durability for the active recreational community of Summit. This approach does not take into consideration athletic field availability. Rather, the focus of the "Iowa Study" is to determine the maximum number of events that one athletic field will support before being removed from service for required resting or reconstruction. A comparison was then made between the current and projected athletic event requirements, as identified for the Summit community, and the maximum number of events that any one field can accommodate in one year. Generally this analysis is considered a field "condition" and "maintenance" approach.

The "Events Driven Approach Analysis" is a formula that has been developed to analyze the specific issues of athletic field opportunity of the active recreational community of Summit. This analysis will determine the current athletic facility requirements and predict future facility needs based on athletic field availability. This approach does not take into consideration athletic field maintenance or conditions of the playing surface. The Events Driven Approach utilizes the current number of athletic registrants to determine the total number of teams associated with that activity. The total number of teams then determines the total number of games and practices (events) for that activity. A comparison can then be made between this data and the expected total number of events that any one field can possibly accommodate in one playing season. The total number of possible events for any one field has been calculated by applying the specific athletic activity's playing season, in terms of available weekdays and weekend days, the available practice and game times for weekdays and weekend days and implementing an availability reduction factor to account for rain days and rain recovery days. Generally this analysis is considered a field "scheduling" and "availability" approach.

III. Conceptual Improvement Plan

The conceptual improvement plan provides insight into the ability of the City of Summit to provide for the current and future recreational demands within the existing available park and school sites. The existing park and school inventory maps and evaluations have been utilized to prepare conceptual sketches of alternate site designs that will add recreational amenities and field inventory to satisfy the recreational requirements determined by the Needs Assessment. The conceptual improvement plan will be indispensable for the future planning of the City of Summit's recreational needs. The conceptual recreational designs are based on the City of Summit's anticipated short term and long term needs as determined by the Needs Assessment Approach.

Further, for each alternative plan or concept, a preliminary construction cost estimate has been prepared to reflect a range of the anticipated improvement costs. The combination of the concept sketches describing alternative site designs to obtain additional recreational space and the preliminary cost estimates for the potential concept improvements will afford the Summit Board of Recreation an invaluable planning tool for prioritizing and implementing improvements to increase the City's recreational inventory and address the community's needs.

3. EXISTING RECREATION FACILITY INVENTORIES AND ASSESSMENTS

A. Recreational Amenities and Current Conditions

As a rational starting point for commencing this project, a thorough inventory of the City's existing parkland and other open space areas utilized by residents for recreational purposes must be identified both by location and condition. The inventory of recreation facilities includes:

1. The identification of all known existing park and school lands by associated lot and block numbers, as per the official Summit Tax Map, and the associated name of the site.
2. The location of the site boundary lines, as identified by the official tax maps, and the tract area in acres.
3. The site's general location within the City.
4. An updated general survey of the existing site features, furnishings, and areas of special concern. This survey consisted of the visual observation and documentation of the sites significant topography, existing play areas, recreational amenities, woodlands, etc.
5. A written description for each site describing its location in relation to adjoining streets and the general character of the surrounding neighborhood, the type of activities conducted at the park or school and a general description of the condition of site facilities and estimated quantitative usage.

The preparation of the existing conditions maps and descriptions will later be utilized in the third phase of this study to serve as base maps for the preparation of proposed concept plans and the identification of recommended future recreational improvements. The site conditions observed during the individual site visits are described in the next several pages of this report. The written descriptions provide a visual picture of the park or school site and their recreational relevance to the Summit community as well as the general conditions of the facilities.

I. Glenside Fields

LOT 1, BLOCK 4901

EXISTING CONDITIONS

INTRODUCTION AND LOCATION

Glenside Fields is a 2-acre portion of the Watchung Reservation leased by the City of Summit, known as Lot 1, Block 4901 on the City tax map. Glenside Fields were built in 2000 under the supervision of City Administration representatives. The Board of Recreation assumed scheduling and maintenance responsibilities of the fields after the City completed the project. The fields are located on Glenside Avenue, north of Rt. 78, in the southern portion of the city. Rt. 78 borders it to the south, and the remaining contiguous lands of the Watchung Reservation to the north and east. The site is also adjacent to the Union County Police K-9 training Facility.

ACTIVITIES AND FACILITIES

The site contains two soccer fields of differing size, neither of which are regulation size for soccer or any other field sport. There are typical goal post structures for the fields and several team benches, but no bleachers. There is a small gravel parking lot adjacent to the cul-de-sac at the end of the entry drive. Also, there are two handicap-parking stalls located just off Glenside Avenue along the entry drive. Over time the Glenside Fields have been primarily used for youth soccer practices and games. Neither field is of regulation size for soccer.

USAGE AND CONDITIONS

The playing fields in the park are located on a large, raised terrace area stepped down from Glenside Avenue and are surrounded by a 6 ft. + retaining wall to the south of the fields. There is a rising slope on the north side of the fields up towards Glenside Avenue. The fields run end to end and are parallel to Glenside Avenue a 6' high chain link fence has been installed at the top of the wall. The runoff areas along the southern edge of the fields are less than the recommended minimum of 30' due to the limitation of the terraced area.

The playing field turf has substantial breakthrough, thatch/mat worn away leaving exposed soil, indicating heavy usage. There are several lawn drains along the base of the hill from Glenside Avenue and between the fields, but many poorly drained low spots exist, causing ponding and poor field drainage. The cause of the problem appears to be related to the inadequate in situ soil conditions; however the analysis of the same is outside of the scope of the Master Plan. It should also be noted that the field appears to be suffering from over use.

To address the drainage problems, in 2002 the Board of Recreation budgeted funds to install lateral drains and remediate the playing surface. Due to the lack of alternate sites to absorb the current usage of Glenside Fields, the Board of Recreation has been unable to take the fields out of service. In 2004, the Board investigated a developing problem on the field with subsurface rocks and debris migrating to the surface of the field. Given the extensive cost of removing and remedying the subsurface materials, the Board of Recreation has been pursuing funds to install synthetic turf on both fields.

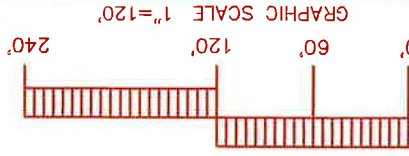
South of the fields is a narrow wooded area that opens up to an open grass area running parallel to the fields about 100 ft. wide. This area appears to be the septic system leach field for the adjacent Police facility.

Parking is limited to a small gravel lot at the bottom of the entry drive. Access to the field is difficult to negotiate with a steep incline to the field, and a lack of steps up the hillside to the fields. The fence and gate atop of the hill are in need of repair and there is severe erosion between the gateposts.

The handicap parking stalls do not appear to comply with current ADA standards. The existing cross slopes exceed allowable standards, lack of van accessibility, as well as the deterioration of the existing walkway to the field from the handicap stalls are limiting factors at this site.

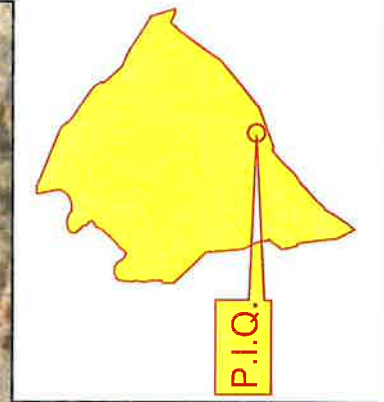
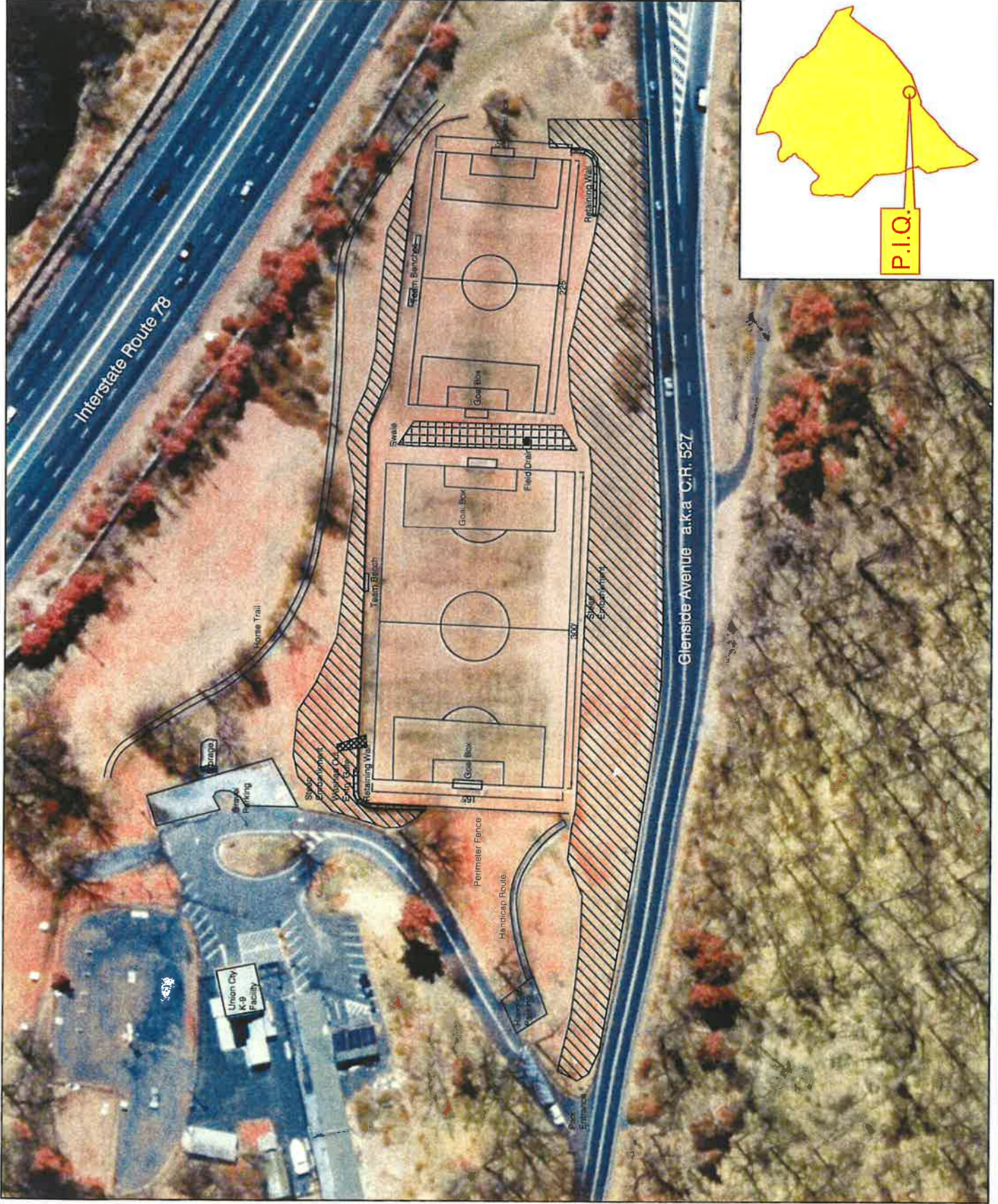


Lot 1, Block 4801
Park Dedication: 1959
Tract Size: 433 Acres
Development Area: 2 Acres



Glenside Fields

City of Summit, Union County, New Jersey



II. Mabie Park

LOTS 2 & 15, BLOCK 3311

EXISTING CONDITIONS

INTRODUCTION AND LOCATION

The Mabie Park is owned by the City of Summit and is known as Lots 2 & 15, Block 3311 on the City tax map. It is located in the central part of the City between Elm Street and Summit Avenue with Broad St. to the north.

ACTIVITIES AND FACILITIES

The park is a community playground with two separate, modern tot lots and playground equipment, two bocce courts, two basketball courts, a horseshoe pit, five picnic tables and several sitting benches. There is a 6 ft. wide paved walkway running through the park from Elm Street to Summit Avenue. There is one pole-mounted area light in the center of the playground along the walkway plus two pole mounted area lights in the memorial garden area adjacent to the Elm Street entrance. There is an open grass area northwest of the playground towards Broad Street. Adjacent to the playground to the west is the Mabie Memorial Plaza.

USAGE AND CONDITIONS

Neighborhood residents and children use the playground extensively. The basketball courts and tot lot structures are in very good condition.

The grass adjacent to the bocce courts is worn from pedestrian traffic and a low spot has been created. A gravel walk could be considered for this area to reduce turf wear. Overhead lighting is provided by the bocce courts, which allows limited use of the facility at dusk.

Consideration should be given to upgrading the park lighting so that, if desired, park use could extend into early evening.

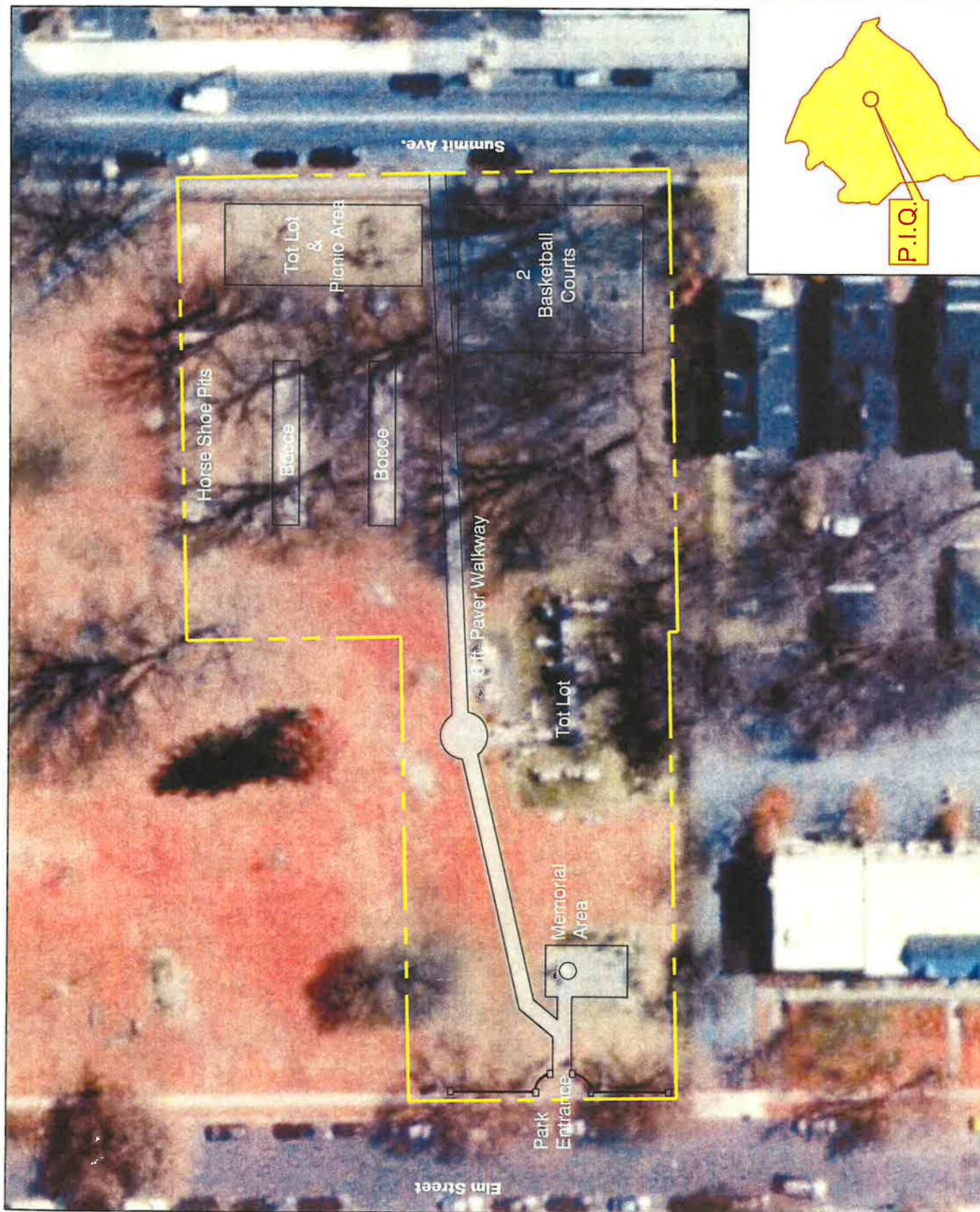
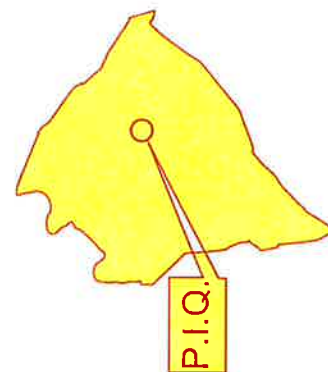


Lots 2&15, Block 3311
Park Dedication: 1929
Tract Size: 1.22 Acres
Developed Area: 1.22 Acres



Mable Park

City of Summit, Union County, New Jersey



III. Summit Recreation Center

LOT 27, BLOCK 4101

EXISTING CONDITIONS

INTRODUCTION AND LOCATION

The Summit Recreation Center (aka Edison Recreation Center) is a 6.7-acre park owned by the City of Summit, known as Lot 27, Block 4101 on the city tax map. It is located on Morris Avenue, just east of Morris Court, in the southeastern portion of the City. Residential houses on Morris Court to the west, Morris Avenue to the north, and a corporate drive to the east border it.

ACTIVITIES AND FACILITIES

The park contains the City's recreation building and off street parking lot, a baseball field, an irrigation system, 2 bleachers, a backstop, a restroom facility, 2 off-street handicap parking stalls adjacent to the baseball field, and a playground. The Recreation Center not only serves as an athletic site but also as a meeting point for the senior citizens of Summit and other recreational programs. Administration offices are also housed in the Recreation Center.

USAGE AND CONDITIONS

The park has 3 topographic tiers with the Recreation Center and parking on the top tier, the new baseball field, appurtenances, and new restroom facility on the 2nd or mid tier, and the older playground and closed restroom facility, which is scheduled to be removed, on the lower tier.

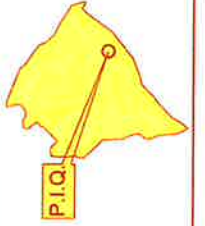
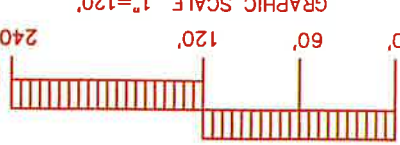
The parking for the park consists of an off-street parking lot at the Recreation building and on-street parking on Morris Court. Access to the park from the off-street parking lot is made difficult due to steep slopes from the upper tier to the mid tier and no walkways or steps are provided.

The baseball field is in very good condition with a well-maintained infield and turf. The field renovations and added restroom facility was completed in 2003.

The older playground on the lower tier has older, outdated playground equipment, a smaller basketball court and a closed, restroom facility. The area is fairly flat topographically, and of moderate size that may accommodate smaller recreation uses.

Summit Recreation Center (Prior to Renovations) City of Summit, Union County, New Jersey

COB
CONSULTANTS
ASSOCIATES
Lot 27, Block 4101
Tract Size: 7 Acres
Developed Area: 7 Acres



IV. Tatlock Center

EXISTING CONDITIONS

LOT 1, BLOCK 401

INTRODUCTION AND LOCATION

Tatlock Center is a 29.8-acre site owned by the City of Summit, known as Lot 1, Block 401 on the city tax map. The site is located on Butler Parkway, northeast of Washington School, in the northwest section of the city.

ACTIVITIES AND FACILITIES

This site contains the only football field, Metro Homes Field, utilized by the High School and recreation youth football teams with stadium seating consisting of two sets of 15 row bleachers and one set of 10 row bleachers, a concession stand, press box and a scoreboard. Also in the stadium are a full size track & field facility with a 440-yard track, with facilities for pole vault, broad jump, shot put, discus and javelin. In addition another small, non-regulation multipurpose field is located north of the Metro Homes Field, known as Greenfield.

There is a multi-purpose practice field located east of Washington school. Also on the site are 4- lighted tennis courts, one basketball court, a parking lot, and a freestanding building, known as Anderson Field House, with locker rooms, rest rooms and other amenities.

USAGE AND CONDITIONS

Metro Homes Field and the adjoining practice fields are used in the fall by the Summit's High School and youth football for games and practice sessions. The track and field appurtenances are also utilized in the fall by Summit High School. In the spring Metro Homes Field and the practice field are used by scholastic and youth lacrosse teams for game play and practices. The track and field appurtenances are also utilized in the spring by the high school interscholastic teams.

The football stadium field, formerly Tatlock Field, and now Metro Homes Field, was renovated with synthetic turf in 2005. The practice field to the north of the stadium, Greenfield, is used for limited football and soccer practices and certain track and field events. This field has drainage and grading issues and needs to be renovated. The tennis courts and basketball court are in fair condition and are in the need of resurfacing.

Metro Homes Field is the only full sized playing field in Summit that is not attached to a school, which has off-street parking. The parking lot at Tatlock Center has 86 parking spaces. This parking is insufficient for accommodating the game events scheduled at Metro Homes Field, at which times attending spectators pursue vehicle parking along Butler Parkway. The daily practice schedules of the teams that utilize these field amenities are accommodated by the existing parking facilities since generally practice events do not draw spectators.

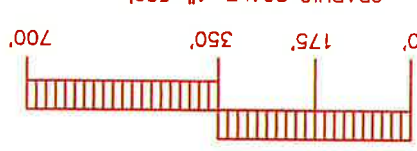
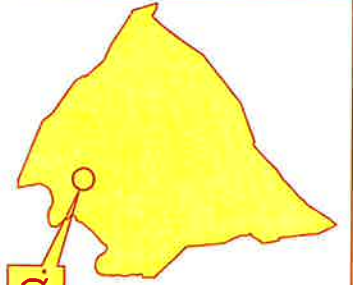
Wetlands



Floodplains



P.I.Q.



Lot 1, Block 401
Tract Size: 20.8 Acres

City of Summit, Union County, New Jersey

Tatlock Center

V. Washington Elementary School

LOT 2, BLOCK 401

EXISTING CONDITIONS

INTRODUCTION AND LOCATION

Washington Elementary School is located on Morris Avenue between Butler Parkway and Lafayette Avenue, known as Lot 2, Block 401 on the city tax map.

ACTIVITIES AND FACILITIES

The school's eastern property line abuts Tatlock Center and dissects the multipurpose field and lot located east of the school. The school's parking area is located north of Lafayette Avenue, north of the school.

The Washington Elementary School parking lot has 43 separate spaces and a gated adjoining macadam area that accommodates approximately 50-60 cars. In 2005, approximately one-half of the gated area was converted to permanent parking. Access to those parking areas is from the traffic light controlled intersection on Morris Avenue. Traffic congestion is common during morning drop-off and afternoon pick-up. The congestion associated with the afternoon dismissal dissipates by 3:30 p.m. The macadam lot is then available and is used by individuals attending or watching athletic events on Washington Field that commence during the week at 3:30 p.m. or 4:00 p.m.

USAGE AND CONDITIONS

For over 25 years, Washington Field, which is immediately adjacent to Washington Elementary School at 507 Morris Avenue, has served as the primary practice field for the scholastic football and boy's lacrosse teams. It is used every day after school and on necessary weekends. Washington Field has also served as the home field for sub-varsity boy's lacrosse games. This usage is a logical extension of the need for both programs to use the adjacent Anderson Field House.

Washington Field also sees heavy use by elementary and middle school children in the youth football and youth lacrosse programs, which take the field during the week after the scholastic usage concludes and limited use on weekends. Access to Washington Field is particularly critical to the youth football program because it has a limited amount of lighting that permits practices to continue in the dark early evenings in the fall.

Largely due to its use by football and lacrosse, Washington Field has deteriorated to the point that it requires major renovation. In the spring of 2005, game play by scholastic and youth teams on Washington Field was suspended due to the poor condition of the field. The multipurpose practice field has very poor turf quality with thin vegetation, mostly exposed soil surface. Renovations or reconstruction should be considered.

The playground and tot lot has a variety of playground equipment for varying ages. The newest piece of equipment is a four-swing structure, which was installed in 2005. The oldest structure, the infant swing, should be considered for replacement. Drainage improvements should also be considered to eliminate drainage runoff from the Washington field through the playground area during heavy rains.

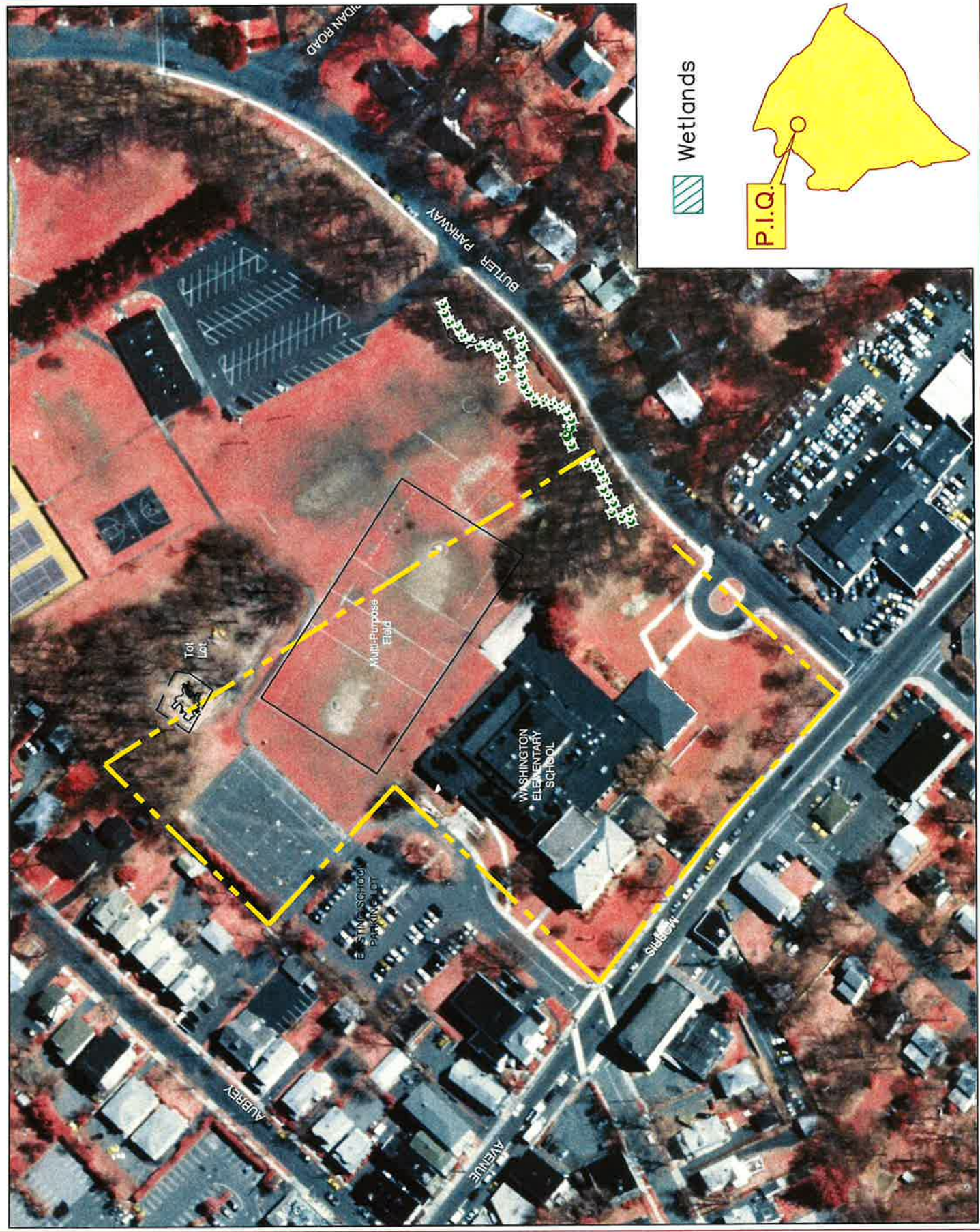
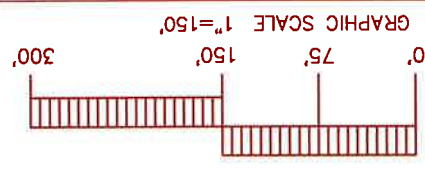
Furthermore, a portion of the parking area north of the school is used as a general-purpose play area for the students. However, with the expansion of the permanent parking in 2005, the area for student use was significantly reduced.

Washington Elementary School

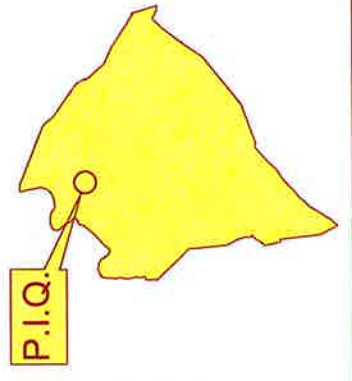
City of Summit, Union County, New Jersey



Lot 2, Block 401
Tract Size: 5.8 Acres



Wetlands



VI. Brayton Elementary School

LOT 1, BLOCK 4601

EXISTING CONDITIONS

INTRODUCTION AND LOCATION

Brayton Elementary School is located at the southwest corner of Ashland Road and Tulip Street, known as Lot 1, Block 4601 on the city tax map.

ACTIVITIES AND FACILITIES

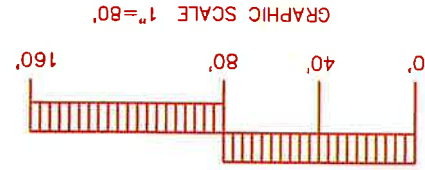
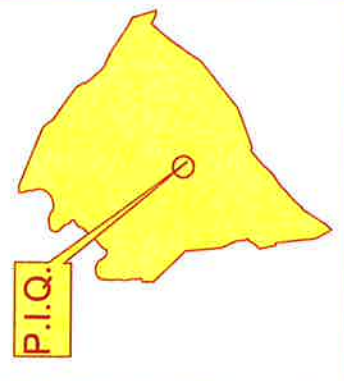
The school's western property line abuts Cornog field house and Memorial Field, which appears to be used for most of the school's recreation activities. There is also a small, enclosed, fenced area located northeast of the school for children activities (i.e. Tot lot).

USAGE AND CONDITIONS

The condition of Cornog field house and Memorial Field are as described under the Memorial Park section of this report.

Brayton Elementary School

City of Summit, Union County, New Jersey



ASDC/MTS
 Lot 1, Block 4601
 Park Dedication, Circa 1929
 Tract Size: 3.4 Acres
 Developed Area: 3.4 Acres



VII. Cornog Field House

LOT 2, BLOCK 4601

EXISTING CONDITIONS

INTRODUCTION AND LOCATION

The Cornog Field House and the Board of Recreation maintenance garage are owned by the City of Summit, known as Lot 2, Block 4601 on the city tax map. It is located east of Memorial field along Ashland Avenue and is bordered by Brayton School to the east and Myrtle Avenue to the south.

ACTIVITIES AND FACILITIES

The Cornog Field House was constructed in 1928 and rededicated in 1992. It has both a men and women's rest room accessible from the outside, a multipurpose playroom for children's arts and crafts activities, an office on the first floor, and a bathroom and storage area on the second floor. South of the building (front) is an open, mortared natural stone culvert traversed by a footbridge.

North of the building is a modern tot lot with an overall dimension of 80' X 115'. Immediately surrounding the tot lot to the east and north is an open grass area used as a playground for the schoolchildren of Brayton School. Also on site by Ashland Avenue are six (6) tennis courts, an area where basketball courts were removed, a practice wall, and a small parking lot off Ashland Avenue.

USAGE AND CONDITIONS

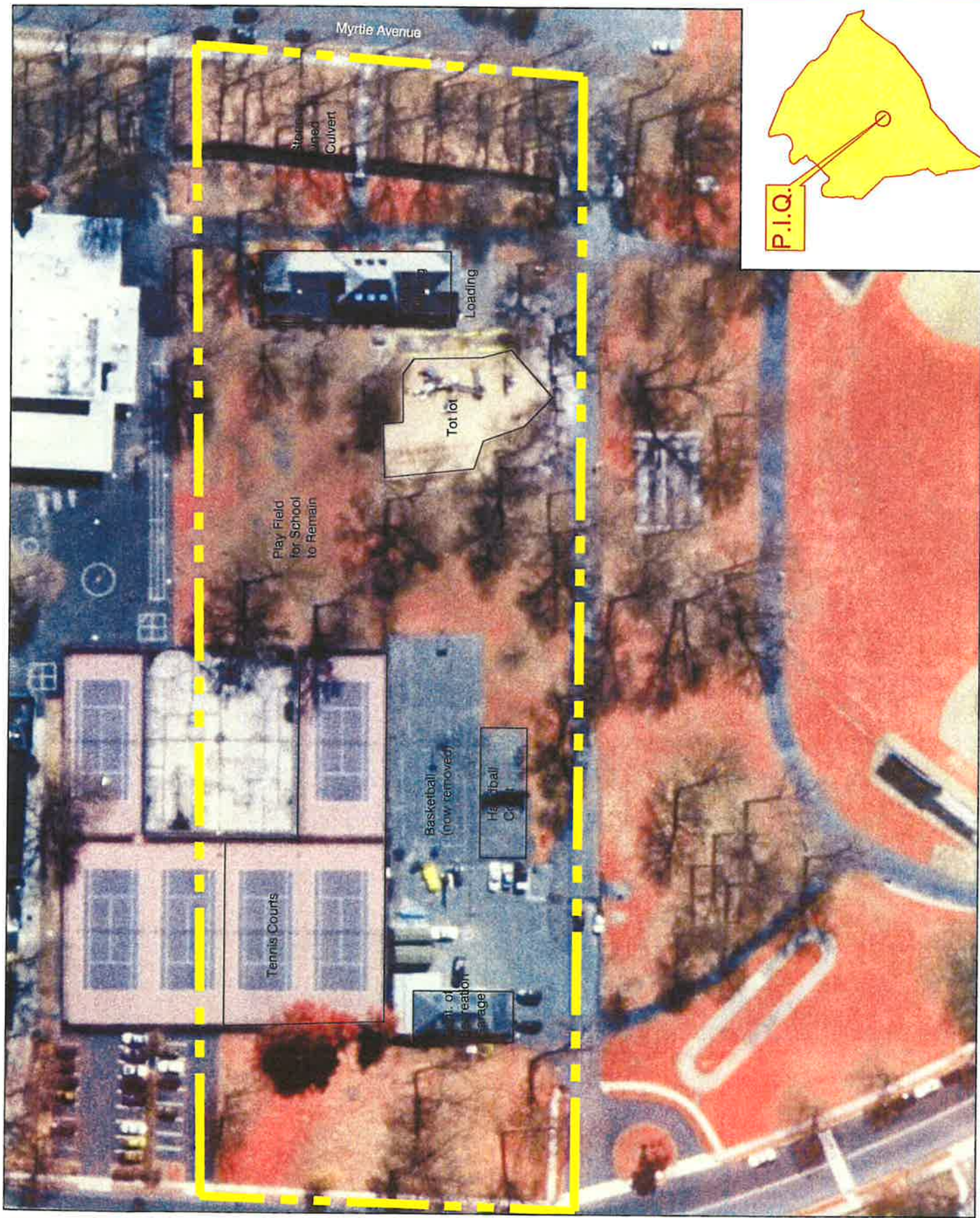
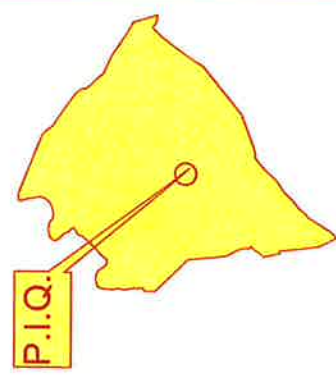
The adjoining school uses the playground extensively for outdoor recess periods. Neighborhood children also use the tot lot and playground equipment.

Cornog Field House

City of Summit, Union County, New Jersey



Lot 2, Block 4601
Park Dedication: circa 1929
Total Size: 3.2 Acres
Developed Area: 3.2 Acres



VIII. Memorial Field

LOT 3, BLOCK 4601

EXISTING CONDITIONS

INTRODUCTION AND LOCATION

Memorial Field is a 16.7-acre City owned park and is known as Lot 3, Block 4601 on the Summit tax map. It is located in the southern portion of the City on Ashland Avenue, and is bordered by Clearview Drive to the west, Parkview Terrace to the south, Larned Road and the City of Summit's Board of Recreation Building, and the Cornog Field House, to the east.

ACTIVITIES AND FACILITIES

The park has two separate field areas, a southern and northern portion. The field to the south has two soccer fields, one baseball field and one baseball field backstop, two covered team benches, two sets of bleachers at the backstop and an electric scoreboard. The field to the north contains one youth soccer field, two softball/ baseball infields, each with backstops, two team benches and two sets of bleachers. A crushed gravel running track surrounds the northern fields and the track is flanked to the north by a retaining wall with built in steps. Atop the retaining wall is a grassy area with mature trees that rises up to Ashland Avenue to the north. Existing shuffleboard courts are also in the park, located southeast of the northern field area among mature trees.

A wooded area exists between the two portions of the field and is located along the western side of the site. Among the large, mature trees are several barbecues grills, two picnic tables and a bench.

Site drainage consists of one area drain located in the northern portion of the site in the southeastern end of the field and catch basins and storm sewers along the adjoining municipal roads. Buried storm sewer lines cross beneath Memorial Field to a small bridge to the east and opens up to an open, mortared natural stone culvert just south of the Cornog Field House. An extensive drainage system has been recently installed in the wooded area between the field areas on the west side of the site.

USAGE AND CONDITIONS

The turf areas and playing surface in both field areas have substantial breakthrough, thatch/mat worn away, exposed soil, have low lying areas and are in need of turf re-establishment.

Both upper and lower fields were renovated in 2001. During that time, two regulation size soccer fields were added to Upper Memorial. Also at this time, the varsity baseball field and both softball/baseball infields were renovated as well.

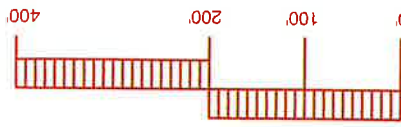
After the fields were returned to service in 2001, problems with drainage were encountered. Upon investigating the conditions observed, it was determined that the soil used to cover the drainage lacked the necessary permeability in order for the drainage system to operate to its highest efficiency.

To affirmatively address the drainage issue, in 2002 the Board of Recreation initiated a program to remediate the soil conditions at Memorial Field. This effort consisted of an aggressive program to aerate and top-dress the soil so as to increase its permeability to permit water to percolate to the drainage system. This program was initiated, and is being supervised, by the Recreation Department's Maintenance and Project Manager. Those efforts have improved the drainage condition and are continuing.

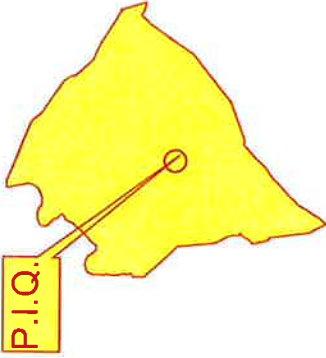
The shuffleboards do not appear to be heavily utilized, and are in need of repainting and repair work.

Memorial Field

GRAPHIC SCALE 1"=200'



Lot 3, Block 460!
Park Dedication: Circa 1930
Tract Size: 16.7 Acres
Developed Area: 16.7 Acres



IX. Wilson Park

LOTS 43, 46 & 48, BLOCK 1702

EXISTING CONDITIONS

INTRODUCTION AND LOCATION

The Wilson Park is owned by the City of Summit and is known as Lots 43, 46 & 48, Block 1702 on the city tax map. The park is located off Oakley Avenue between Springfield Avenue and Beekman Terrace in the western part of the City.

ACTIVITIES AND FACILITIES

The park is separated into two areas. One area, with six tennis courts (currently closed), two enclosed, elevated paddle ball courts, a tot lot and two swing sets, a small basketball court, and a restroom facility with a men's and women's room and a water fountain, is located just south of the Wilson Avenue School.

The other area is a 420 ft. by 285 ft. athletic field with a baseball infield and backstop, bleachers, benches, a soccer field, batting cages, and a practice pitching mound located to the west of the school.

Access to the park is from Oakley Avenue and from the parking lot of the Wilson Avenue School.

USAGE AND CONDITIONS

The baseball infield was recently reggraded to a limited extent to improve surface drainage. The backstop is in poor condition. It is rusty and in disrepair. Consideration should be given to replacement of the backstop and renovation of the entire field. The Board of Recreation had budgeted funds to renovate the infield and backstop, but deferred action pending the decision by the Board of Education as to when it would retain title to the Wilson School facility. Action was further deferred pending completion of the Master Plan process.

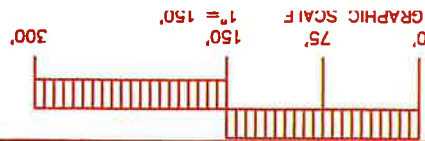
The tennis courts are closed. The surrounding fencing is also in poor condition. The current condition of the existing tennis courts has been a focus of the Summit Tennis Association as is a report describing the cause of the courts deterioration and the method and cost of mitigation as described in the T&M Engineering report.

The paddleball courts are in good condition and appear to be maintained. Recreational lighting is provided in season for night play.

The restroom facility is dated, but appears to be in good condition. The tot lot and swing sets are also in good condition.

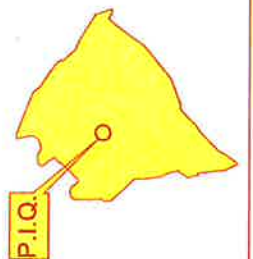


Lots 42, 43, 44, 45
Block 1702
Park Dedication: xxx
Tract Size: 10 Acres
Developed Area: 8.8 Acre



City of Summit, Union County, New Jersey

Wilson Park



X. Franklin Elementary School

LOT 49, BLOCK 3004

EXISTING CONDITIONS

INTRODUCTION AND LOCATION

Franklin Elementary School is located at the corner of Blackburn Road and Warwick Road, known as Lot 49, Block 3004 on the city tax map.

ACTIVITIES AND FACILITIES

The school has a small, open field area west of the building that contains a soccer field and a baseball infield and backstop. Also on the west side of the building there is a tot lot with modern play equipment in a built up play area adjoining the building. There are swing sets in the far left corner of the grassy area, adjoining the basketball court in the rear of the building.

On the east side of the building along Warwick road is another tot lot with wooden and modern play equipment.

USAGE AND CONDITIONS

The Franklin Field is used every day in the fall and spring by both high school sports and youth sports involving middle school and elementary school students. Due to poor conditions of the turf and other safety concerns, Franklin field was taken out of service in the spring 2005. A small portion of the field is used for gym and recess.

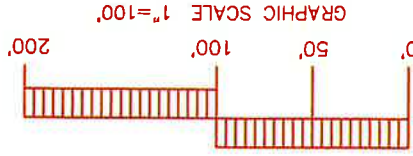
The field was last renovated by the Board of Education in 1995. However, the field has not been actively maintained since the renovation was completed and has deteriorated. The fields to the west of the school have substantial breakthrough, thatch/mat worn away, exposed soil and are in need of renovation. The baseball infield presents drainage concerns, the presence of standing water requiring some regrading. The backstop structure is old, rusted, and in need of repair or replacement.

The western tot lot structures are in very good condition.

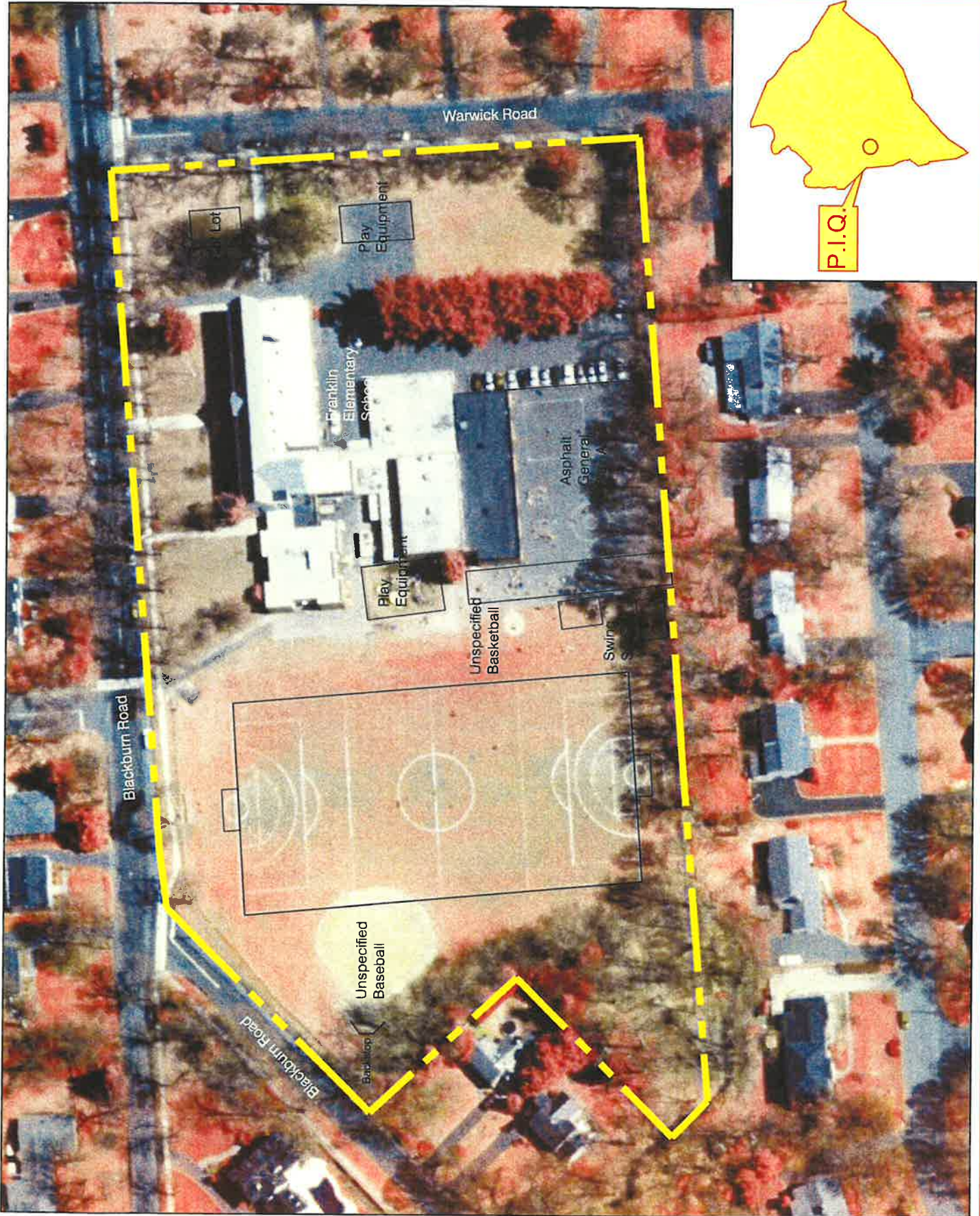
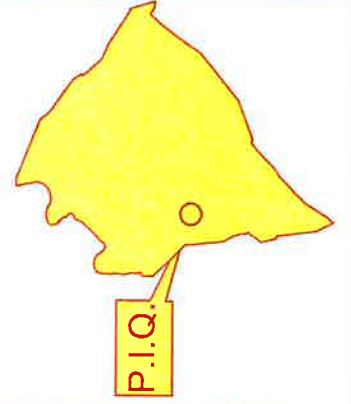
The eastern tot lot has a wooden structure that may present some concern and should be considered for removal or replacement. Neighboring residents and children use this tot lot area. The other remaining play structure is in good condition.

Franklin Elementary School

City of Summit, Union County, New Jersey



Lot 46, Block 3004
Tract Size: 6.4 Acres



XI. Jefferson Elementary School

LOT 25, BLOCK 4301

EXISTING CONDITIONS

INTRODUCTION AND LOCATION

Jefferson Elementary School is located adjacent to the Summit Community Pool on Ashwood Avenue, known as Lot 25, Block 4301 on the city tax map.

ACTIVITIES AND FACILITIES

All of the play facilities for the school are located east of the building. The site contains a recently constructed baseball field with a backstop structure, team benches, four athletic field light poles, one set of bleachers, batting cages, practice pitching mounds, and electric scoreboard and one metal shipping container for storage. A new storage facility is located in the community pool parking lot.

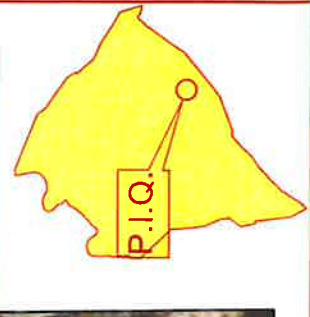
Also on site are two tot lots with modern play structures, an open asphalt covered play area, and three picnic tables under existing trees.

USAGE AND CONDITIONS

The baseball field, turf and infield are currently in good condition. Recent drainage improvements have been made in right field. The outfield currently consists of a flexible safety outfield fence. A more permanent fence is being considered. The practice pitching mounds are raised with landscape timbers and offer fencing containment for errant pitches.

The tot lots appear to be relatively new. In addition to the field area, the only open play area for the school appears to be a 70 ft. by 40 ft. area of asphalt, near or within the outfield of the baseball field. This area was observed being used as a recreation area during recess periods by the school.

Parking for the baseball field is in a shared parking lot with the community pool. The parking lot surface is cracked, the striping is faded and the lighting might be considered outdated in some locations. The pool handicap parking spaces have recently been restriped to comply with current ADA standards and requirements (I.E: curb ramps; accessible aisles; van accessibility; etc). There are no handicap parking spaces provided for the playing fields.



Jefferson Elementary School

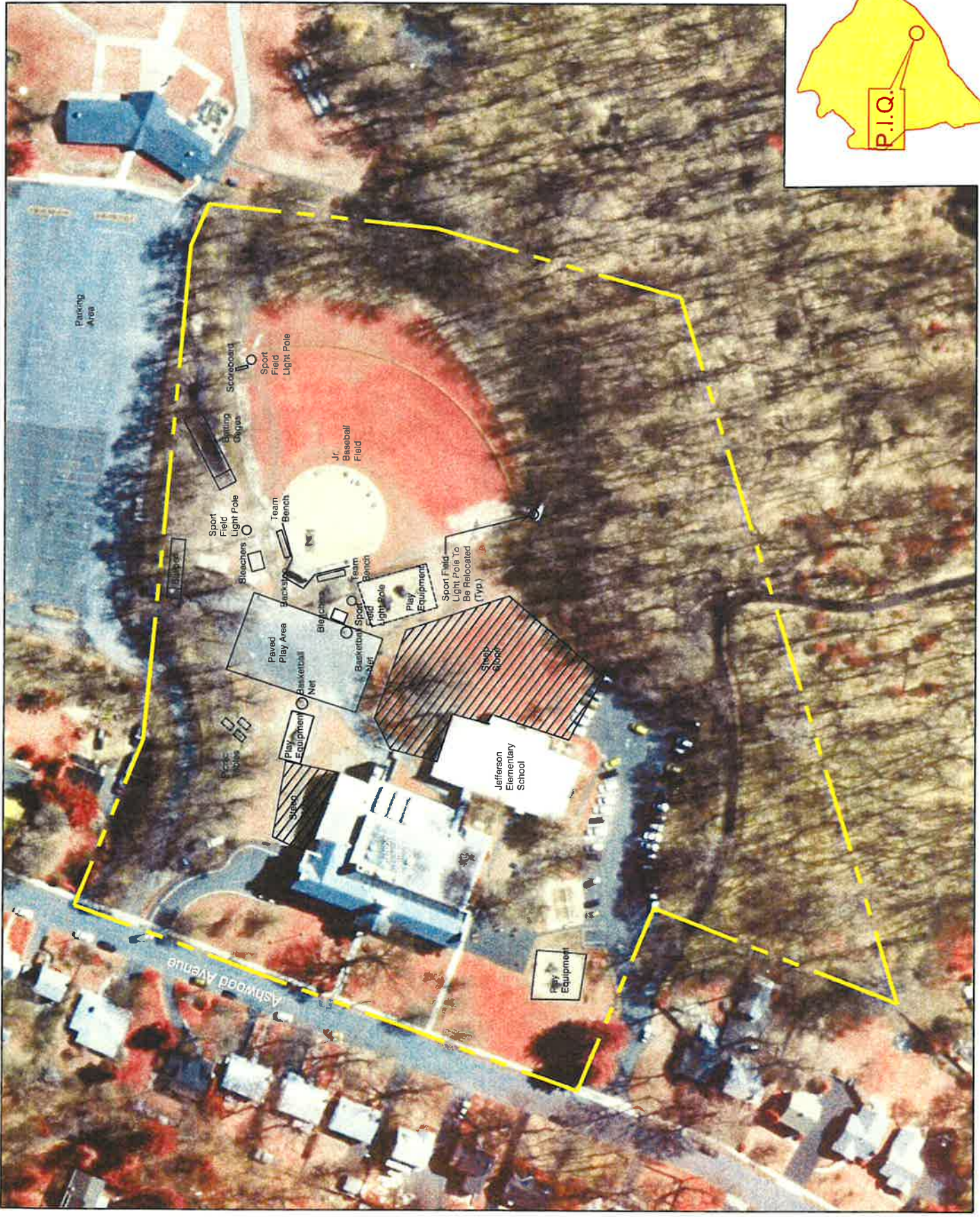
City of Summit, Union County, New Jersey

GRAPHIC SCALE 1"=120'



SWA
ASSOCIATES

Lot 25, Block 4201
Tract Size: 8.4 Acres



XII. Lincoln-Hubbard Elementary School

LOT 1, BLOCK 1902

EXISTING CONDITIONS

INTRODUCTION AND LOCATION

Lincoln-Hubbard Elementary School is located on Woodland Avenue between Crescent Avenue and McGregor Place, known as Lot 1, Block 1902 on the city tax map.

ACTIVITIES AND FACILITIES

The athletic field for the school is located northwest of the school building and is approximately 1.5 acres in size. On this site there is a baseball infield with a backstop structure and two bleachers. The school also has two new play structures, a swing set, three picnic tables, a small asphalt basketball court with new backboards and a storage shed.

On the north side of the building there is an open asphalt area with marked out play areas for group play (i.e.; kickball, etc.).

USAGE AND CONDITIONS

The turf condition of the field is poor, with breakthrough and soil exposure, thatch beginning to wear, with minor soil exposure. With grading improvements and additional maintenance, specifically in left field between the clay infield and the outfield, the turf may allow for a better playing surface. The baseball infield presents some minor drainage issues. The backstop structure is in good condition and the bleachers are in fair condition. The new play structures, picnic tables and swing sets are in very good condition. The basketball court is a small court, but the poles, backboards and rims are also in very good condition.



Lincoln-Hubbard
Elementary School

Asphalt
Play Area

Parking

Equipment

Unspecified
Baseball

Wooded Path

Bleachers

Unspecified
Baseball

Woodland Avenue

Crescent Avenue

Maplewood Road

P.I.Q.



Lot 1, Block 1902
Tract Size: 6 Acres



Lincoln-Hubbard
Elementary School
City of Summit, Union County, New Jersey

XIII. Wilson Elementary School

LOT 25, BLOCK 1702

EXISTING CONDITIONS

INTRODUCTION AND LOCATION

Wilson Elementary School is located off Beekman Road on Beekman Terrace, known as Lot 25, Block 1702 on the city tax map.

ACTIVITIES AND FACILITIES

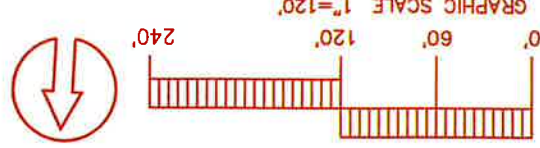
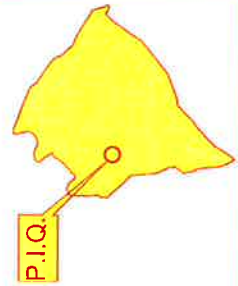
The school's eastern and southern property lines adjoin the Wilson Park. There is a parking lot for the school that is also used for access to the park.

USAGE AND CONDITIONS

The Board of Education offices will be located in the school as well as a Primary Center. The conditions of the park are described under the Wilson Park summary.

The field will be used for recess and physical education classes.

Wilson
Elementary School
City of Summit, Union County, New Jersey



CRS ASSOCIATES
Lots 25
Block 1702
Tract Size: 4.5 Acres
Developed Area: 3.5 Acres



XIV. Lawton C. Johnson Middle School

LOT 2, BLOCK 3203

EXISTING CONDITIONS

INTRODUCTION AND LOCATION

The Lawton C. Johnson Middle School is located on Morris Avenue, between Maple Street and Elm Street, known as Lot 2, Block 3203 on the city tax map.

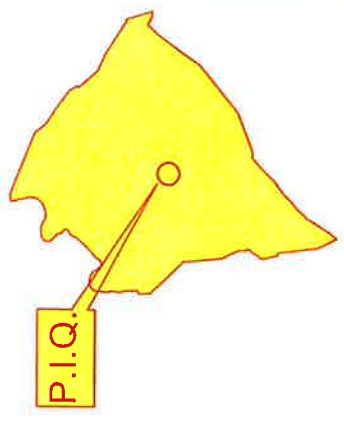
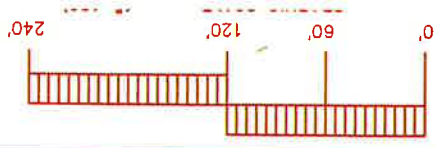
ACTIVITIES AND FACILITIES

The school field is located southwest of the school and is bordered by Maple Street to the north and Oakland Place to the south. The field is small for a large school.

The field has two baseball infields, each with backstops and team benches, a jogging path, and a small, multipurpose field.

USAGE AND CONDITIONS

The multipurpose field was stripped, regraded and sodded in 2005. The balance of the grass areas was aerated and seeded. Infield mix was applied to both baseball infields and regarded in September 2005. Irrigation repairs were also made at this time. The baseball backstops are both in good condition.



XV. Summit High School

LOT 13, BLOCK 1302

EXISTING CONDITIONS

INTRODUCTION AND LOCATION

The Summit High School is located on Kent Place Boulevard between Colonial Road and Morris Avenue, known as Lot 1, Block 1902 on the city tax map.

ACTIVITIES AND FACILITIES

There are two fields at the high school, an upper field and a lower field. The upper field is adjacent to the building and parking lot and has a circular jogging track, a baseball infield with a backstop and two team benches. There is also a shipping container used for storage along the rear fence line. Due to the renovation of the school, the baseball field now sited at the upper high school field is not of regulation dimensions.

The lower field has an additional infield, with a backstop, team benches and a bleacher. There is also a large, multi-purpose field with 4 team benches and 2 bleachers. There is also a shipping container used for storage along the right fence line.

Both fields were renovated in conjunction with the high school expansion project, completed in 2001. Additional drainage work was done in 2002 on the lower field. Both fields had irrigation systems installed.

USAGE AND CONDITIONS

The baseball infield in the upper level of the field and the outfield/multipurpose fields are in good condition. The circular jogging track is in good condition.

There is about a four to five foot elevation change between the upper field and the lower field. Access to the lower field is provided through a gate in the four-foot tall chain link fence at the end of the upper level; however, there are no steps at the gate.

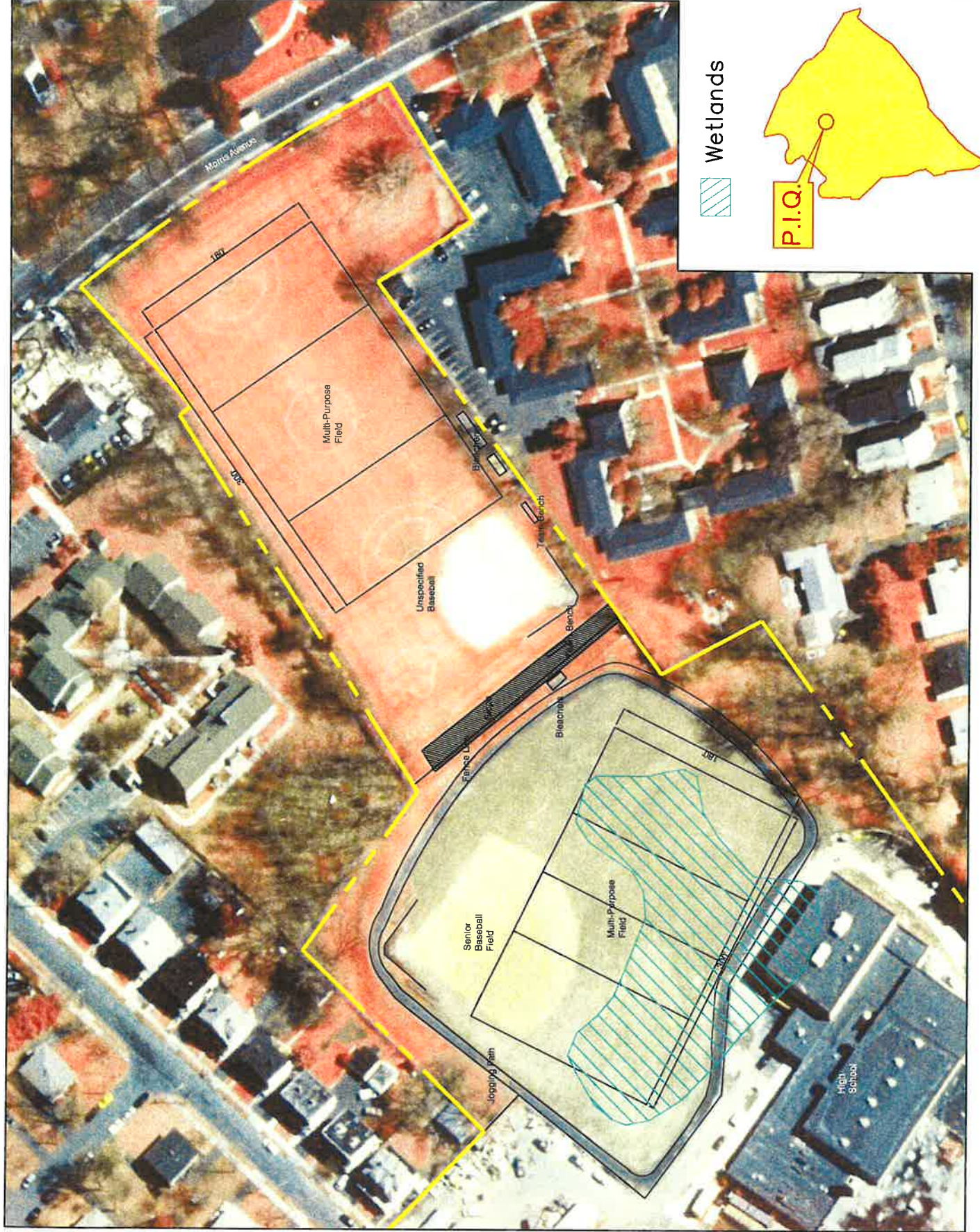
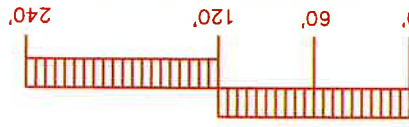
The lower high school field, which is used for girl's field hockey and girl's lacrosse, is constricted by property lines that prevent a regulation size field for either sport to be built at this location. The lower level infield and backstop are in good condition. The three bleachers are older, but in fair condition. The turf in the lower field is thin and worn throughout the play area of the field. The turf is in fair condition with some break through, thatch beginning to wear and soil exposure observed.

Summit High School

City of Summit, Union County, New Jersey



Lot 13, Block 1302
Tract Size: 18.3



XVI. Summit Community Pool

LOT 41, BLOCK 4301

EXISTING CONDITIONS

INTRODUCTION AND LOCATION

The Summit Community Pool is an 11.1-acre site owned by the City of Summit, known as Lot 41, Block 4301 on the city tax map. The site is located on Ashwood Avenue, between Baltusrol Road and Michigan Avenue southeast of Jefferson Elementary School, in the southeast section of the city.

ACTIVITIES AND FACILITIES

The community pool center is a large facility that was substantially renovated in 2004. The main building contains the bathhouse and a new concession area. A new leisure pool and mechanical room was constructed just east of the tot lot. The existing lap pool was renovated with a new one-meter diving board, drop slide and body slide. A new sand volleyball court was constructed just south of the main building. There are open lawn areas, an elevated picnic grove under the site's perimeter woodlands with picnic tables and barbeque pits, a reconstructed basketball court and a tot lot with a modern play structure north of the building with two picnic tables.

There is a small, open grass area west of the tot lot, outside the perimeter fence, that is perhaps a utility easement from Michigan Avenue.

A large parking lot is north of the building and appears to serve both the community pool and the Jefferson School athletic field.

USAGE AND CONDITIONS

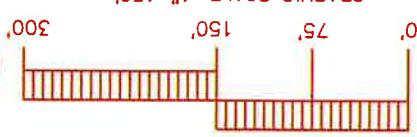
An Overall Aquatic Layout, prepared by Water Technology, Inc. is enclosed depicting the recent improvements.

There is currently site lighting for the pool area and the parking lot. The parking lot surface is cracked and the striping faded, and may require resurfacing and/or reconstruction. The handicap parking facilities for both the pool building and the Jefferson School athletic fields does not comply with current ADA standards and requirements (I.E. curb ramps; accessible aisles; van accessibility; etc).

The picnic grove has several picnic tables, barbeque pits and a square basketball court, that was recently reconstructed.

Summit Community Pool

(Prior to reconstruction)
City of Summit, Union County, New Jersey

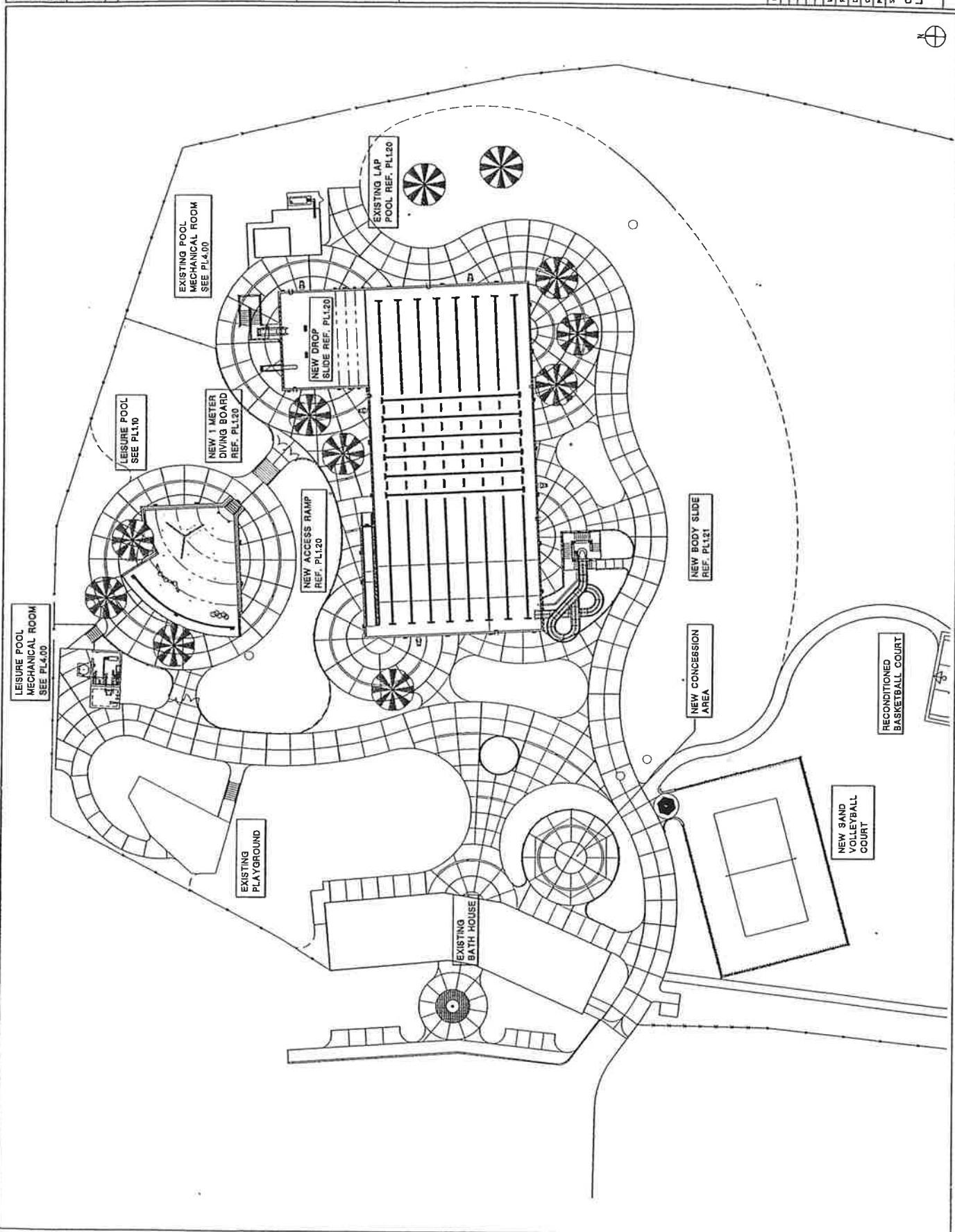


SUMMIT, NEW JERSEY

SHEET TITLE ,
OVERALL AQUATIC
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OVERALL AQUATIC LAYOUT

XVII. Summit Municipal Golf Course

EXISTING CONDITIONS

INTRODUCTION AND LOCATION

The Summit Municipal Golf Course is located at 189 River Road. The 9-hole, par 3, 1000 yards golf course makes up 13 acres of Summit's recreational property.

ACTIVITIES AND FACILITIES

The course has nine par-3 holes with a large pond in the middle. It is well kept with rough on each side of the fairway and a 2-ft. fringe-cut around the greens.

USAGE AND CONDITIONS

The tee area consists of astro-turf matted onto raised wooden boxes. The fairways and green are natural grass with irrigation. The irrigation system for the fairways is operated manually. The greens have an automated irrigation system.

There is a large pond on the tee shot on the 4th hole. The pond is used for ice-skating in the winter.

The golf course has a clubhouse which consists of three components: 1) An open-air area for golfers to assemble before or after their round. A roof covers this area. 2) A small office for the starter. 3) A shed that houses all of the maintenance equipment.

The course is operated and maintained by the Division of Community Services.

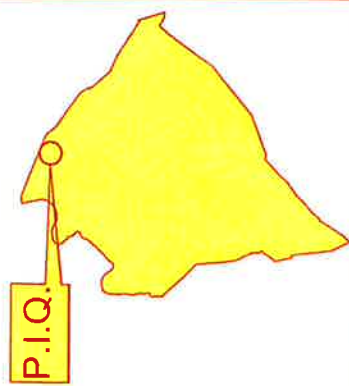
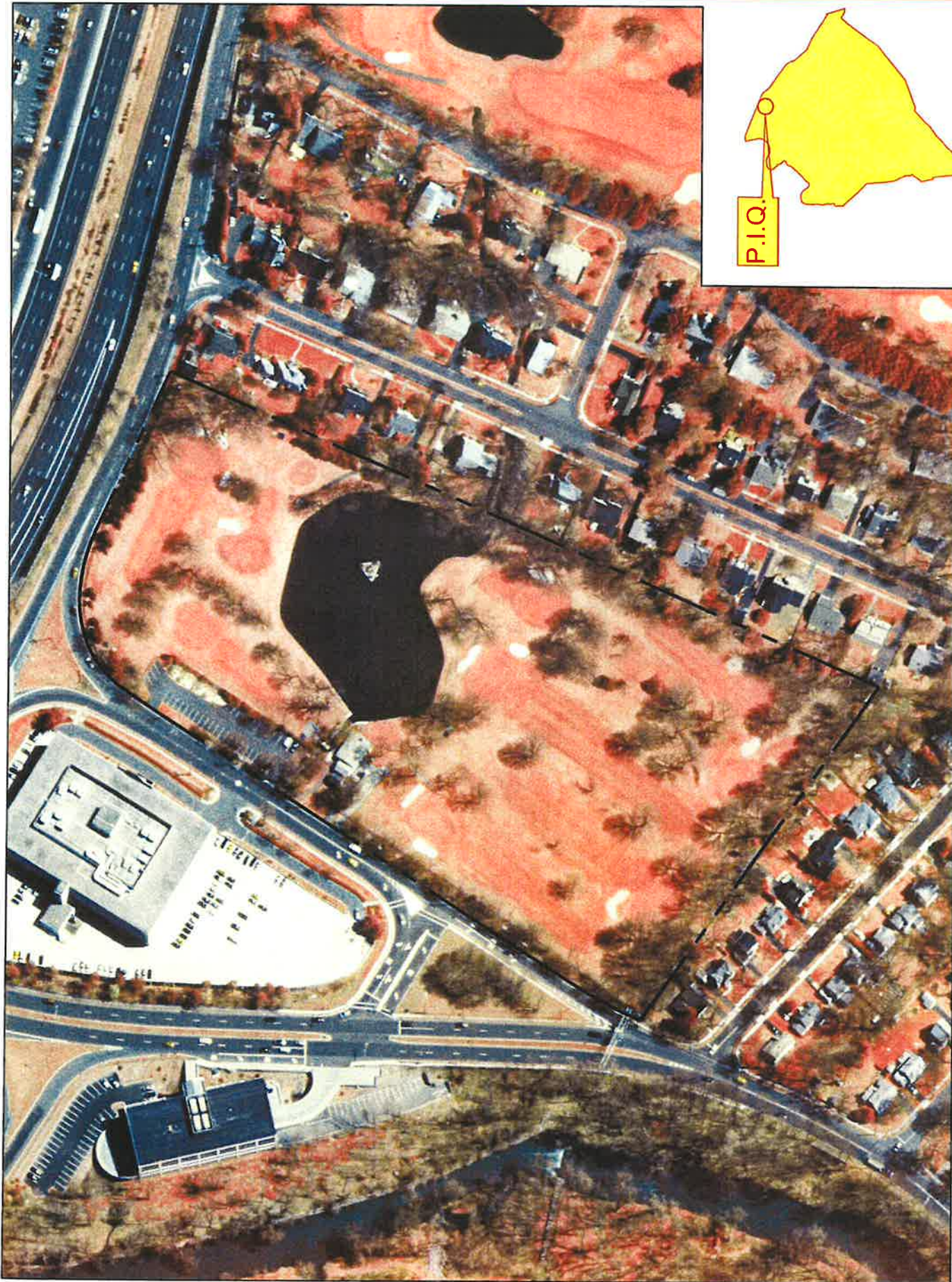


Lot 28, Block 103
P.I.Q. Associates, Inc.
P.I.Q. Associates, Inc.
P.I.Q. Associates, Inc.



Summit Municipal Golf Course

City of Summit, Union County, New Jersey



XVIII. Summit Transfer Station

SUMMARY-TRANSFER STATION TASK FORCE October/November 2005

The Transfer Station Task Force was formed in early 2005 and charged by Common Council to develop recommendations concerning Summit's future use of the approximately 53-acre site that address environmental concerns, specify detailed plans for both active and passive recreational uses on the site, and allow for the continued presence of recycling areas and transfer station there.

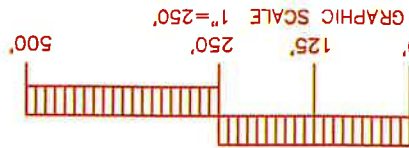
According to topographic studies prepared for the Task Force, much of the tract can be considered a mature woodland area. Two areas on the site are presently cleared; the Transfer Station and recycling activities take place in these areas. A substantial portion of the remaining undeveloped wooded portions of the site are significantly environmentally impacted, including areas of steep slopes, freshwater wetlands, buffers for those wetlands, river and stream corridors, and flood plain areas.

Based on the initial engineering studies, there appear to be approximately 20 acres of "upland" areas, located in three general parcels, a portion of which could be adaptable for active recreational use and parking. A significant amount of this space is currently in use for the Transfer Station, recycling activities, leaf/garden waste collection and composting. The degree to which these activities can be reconfigured and still provide the disposal/recycling services desired by the community will to a large extent determine the active recreational uses that can be accommodated there. There appears to be considerable area adaptable to passive recreation use. Environmental testing is in process, as is a preliminary study of alternative scenarios for fields.

The current goal of the Transfer Station Task Force is to develop several concept site plans that blend various configurations for current uses with new fields, parking, alternative access, and passive recreation opportunities, present these to the community for public comment in early 2006, continue with environmental testing through the balance of fall and winter, and then use these inputs to refine the alternatives and have a recommendation for Common Council by Summer 2006.

City of Summit, Union County, New Jersey

**Lots 2 & 3
Block 1505
Tract Size: 35.7 Acres**



B. Summary

A review of the existing sites that were identified for the purpose of this Master Plan reveal that, in general the school tracts offer little in the way of providing additional opportunity for increasing Summit's recreational inventory. The majority of these sites have already been utilized to their fullest potential with school facility expansion necessary to accommodate the fluctuation in student enrollment over the past few decades. The limited available open space that is identified on the inventory maps for these parcels is currently over utilized for recreational purposes, identified by overlapping or shared sport uses. For example many of the open lawn areas of the schools are occupied by a shared use between multipurpose (soccer, lacrosse, football and field hockey) and baseball fields (senior baseball, Little League baseball and softball). A shared use athletic field provides the most efficient use of the limited open space as observed at the school sites, provided a seasonal schedule of sports activities is adhered to. However, the present arrangement or layout of the shared fields at the schools impose conflicts with seasonal playing surfaces creating clay infields of spring baseball activities to overlap onto the spring lacrosse field playable area (and the fall soccer field playable area), as evident at Franklin, Lincoln-Hubbard, Upper High school and the Middle schools. Another conflict of concern with the shared field arrangement is the overlapping use of baseball outfields, as evident on the Middle School field.

It is this type of shared use field conflict that must be carefully reviewed and addressed to allow for complete utilization of available open space for any single sporting activity and remove conflicts and obstacles that could be dangerous to the players. There are a number of other important issues that must be considered when reviewing the elimination of conflicts such as: the dimensional size of the playing fields, the condition of the playing surface and the issue of poor drainage. As is evident from the existing site conditions descriptions, in this report, there are numerous play areas that do not meet the regulation size for the particular sporting activity for which it is currently used. The existing field areas have been utilized so intensely that they have reached a point of disrepair resulting in degraded playing surfaces. Some of the existing athletic field inventory is severely limited with regard to scheduled playtime; particularly following rain events and other inclement weather due to poor drainage and ponding water..

The following is a list of the sport field amenities identified at the existing Summit school sites. This list does not consider the overlapping or multipurpose use of the specific sport groups although the seasonal duration of the use has been considered:

Existing School Athletic Field Inventory:

Brayton Elementary

No athletic field opportunity

Franklin Elementary

1 Baseball/Softball field

1 Lacrosse field

1 Short-Sided Soccer field

Jefferson Elementary

1 Baseball/Softball field

Lincoln-Hubbard Elementary

1 Baseball/Softball field

1 Short-Sided Soccer field

Washington Elementary

1 Lacrosse field

1 Practice Football field

Wilson Elementary

No athletic field opportunity

Lawton C. Johnson Middle School

2 Baseball/Softball field

1 Short-Sided Soccer field

Summit High School

1 Sr. Baseball field

1 Baseball/Softball field

1 Lacrosse field

1 Field Hockey field

The Summit Board of Education provides a portion of the City's athletic field inventory including:

(6) Baseball/Softball fields

(1) Sr. Baseball field

(2) Soccer fields

(1) Short-Sided Soccer fields

(3) Lacrosse fields

(1) Practice Football field

(1) Field Hockey field

The existing Park sites offer a slight advantage over the school sites for providing potential athletic field improvements that could increase the City's sport field inventory since the majority of the parks do not contain large building structures or significant parking facilities as typically associated with the schools. It is apparent, however that the lack of adequate parking facilities at the existing parks creates resident concern with vehicular congestion on the adjoining local streets. Another issue, which impedes the potential for existing park site improvements, are areas of significant topographic relief, which complicate the sport field construction.

The following is a list of the sport field amenities identified at the existing Summit park sites. This list does not consider the overlapping or multipurpose use of the specific sport groups although the seasonal duration of the use has been considered:

Existing Park Athletic Field Inventory:

Cornog Field House No athletic field opportunity

Summit Community Pool No athletic field opportunity

Summit Public Golf Course No athletic field opportunity

Glenside Fields

1 Soccer field
1 Short-Sided Soccer field

Mabie Park

No athletic field opportunity

Memorial Field

2 Baseball/Softball fields
1 Sr. Baseball field
2 Soccer fields
1 Short-Sided Soccer field

Summit Recreation Center

1 Baseball/Softball field
1 Short-Sided Soccer field

Metro Homes Field

1 Football field (synthetic)
1 Lacrosse field (synthetic)
1 Track & Field

Wilson Park

1 Baseball/Softball field
1 Soccer field

The Summit Board of Recreation provides a portion of the Board of Education's athletic field inventory including:

(4) Baseball/Softball fields
(1) Sr. Baseball field
(4) Soccer fields
(3) Short-Sided Soccer fields
(1) Lacrosse fields
(1) Football field
(0) Field Hockey field
(1) Track & Field

These issues as well as other site parameters will be studied and considered in the final phase of this report and the recommendations for site improvements through the proposed concept plans.

4. Needs Assessment Analysis and Recommendation

What are the capabilities and limitations of recreational facilities and fields? This question is a key to determining the solution to not only the City of Summit's active recreational needs, but also many other municipalities. City officials want to know how many fields to build to anticipate capital improvement expenditures, coaches and user groups want to know for availability and scheduling purposes as well as for transportation convenience, and the maintenance manager wants to know so that an effective management program can be developed to control field conditions. The answer lies within each facility by quantitatively assessing the maximum usage of the field based on recreational requirements and the maximum usage before the field-playing surface is rendered unplayable.

The Needs Assessment is an evaluation that compares the current supply of recreational facilities with the current demand for recreational opportunities in the City of Summit. Unfortunately, there is no single calculation that can be employed to calculate, with any definitive precision, the specific number of fields Summit needs now or in the future. Two (2) methods, the "Events Driven Approach Analysis" and the "Iowa State University Study Approach," have both been implemented, utilizing current athletic registrant data, to develop this Needs Assessment. This assessment and the Master Plan will serve as one basis for making recommendations for planning priorities to meet current and future demands for active and passive recreational opportunities in the City of Summit. Both methods utilized for this report review projections of future athletic registrant populations. Two (2) sources have been utilized, one based on Summit census data and the second based on each athletic league's anticipated growth. To compile the projected population increases for 2007 and 2014 the population growth identified in the 2000 Census data was equally divided into one-year increments and incorporated into the developed formulas. Enrollment data provided by the Board of Education was also considered with regard to participation and growth projections.

One of the more difficult exercises in verifying the existing quantities of the various components of Summit's athletic activities was the determination of field use. In order to determine the field amenity need, the existing field usage must be identified. This required some significant consideration since almost every operational play field in the City is shared by a number of different sport groups for a number of different activities. For this reason it was necessary to prepare a seasonal schedule of recreational activities conducted in Summit. The exact times and lengths of practices and game events and field locations were determined for each sport group and identified. This information was then applied to quantify the allotted or scheduled amount of time any one particular play field was utilized by one sport group. The result of this process provided a quantitative number representing the "existing field usage". The field usage number was then subtracted from the determined field needs analysis to provide the actual deficit of play fields within the City's inventory of play fields.

A. Preliminary Events Driven Approach Analysis

The Events Driven Approach is a method specifically developed to determine the athletic field availability and ultimately the potential field needs within the City of Summit. This approach considers the number of athletic registrants or participants, from all organizations currently operating in the City, to determine the total number of teams associated with that activity. In this initial phase of the formula, specific sport groups were interviewed to determine the number of participants per team. This number was then verified with the registration data supplied by the Board of Recreation. The total number of teams determined for each specific activity was then formulated to quantify the total number of games and practices, described in this report as "events" for that specific activity. A comparison was then made between this data and the expected total number of events that any one field can possibly accommodate in one playing season.

The total number of possible events for any one field has been determined by applying the specific athletic activity's playing season, in terms of available week-days and weekend days, the available practice and game times for week-days and weekend days. This phase of the formula proved to be very tedious requiring the preparation of a seasonal field schedule for each of the currently utilized play fields within the City, the schedule was then verified by the Recreation Staff and the individual sports groups. A considerable amount of time was dedicated to this phase to eliminate overlapping field utilization and to ensure accuracy in the results of this approach. Another important factor that required consideration was the implementation of an "availability reduction factor" to account for rain days and rain recovery days.

Rain days directly affect the number of events per season. "Rain events" often preclude the daily scheduled practice events without the ability to conduct make-up practices, however a rain event will only delay or require rescheduling of game events. This issue becomes significant when determining the total possible utilization of existing play fields and requires attention. This approach utilizes an average number of rain days for each season (derived from AccuWeather.com) and subtracted them from the total number of possible days in a season. Included, within the rain events number utilized in this formula, is the number of days per season that a field needs to "drain" or "recover" from a rain event to provide a playable surface. By subtracting the "rain days" and "rain recovery days" from the number of possible events for each activity, a realistic number representing the total possible events per field can be obtained.

Finally, the total number of events (per season/ per field) is then divided by the total number of possible events (per season/ per field) to obtain the total number of fields required for a specific activity. This formula was applied for both the registrant data anticipated by the sports leagues and the projected 2000 census data.

This "Approach Analysis" is a formula that has been developed by CME Associates to determine the current athletic facility requirements and predict future facility needs based on athletic field availability. This approach does not consider existing or future athletic field maintenance or conditions of the playing surface.

The results of the preliminary Events Driven Approach are identified in Figure 5. The athletic field schedule, study data and study calculations used are provided in the Appendix of this report.

B. Preliminary Iowa State University Study Approach Analysis

The Iowa State University Study Approach is another method utilized to analyze the field needs within the city of Summit based on the athletic field durability. Dr. David Minner at Iowa State University has been occupied with this universal dilemma of developing an accountable method for determining the limits of playing surface capabilities. Dr. Minner has, for the past few years, been conducting a survey, performed by public and private athletic field managers and maintenance professionals and non-professionals, generating a wealth of data related to play field surface conditions across the Country. The survey applies a standardized number of events that can be applied to any one playing field per year. For example: one athletic game or one civic event is equal to one (1) play field event, one athletic practice is equal to one-half (0.5) of a play field event. The Survey prescribes that only a limited amount of events per year can be conducted on a given field before the amount of degradation that occurs due to foot traffic requires the field to be taken out of service for the purpose of "field resting". The term "field resting" refers to allowing the playing surface material, typically natural turf, a prescribed period of time to recover and regenerate the "hatch layer" to provide an acceptable playing surface. This study prescribes a minimum "field resting" time of one year, with appropriate turf and soil maintenance, to allow for the regeneration of the "hatch layer" for a playable surface condition.

The number of events identified in the Iowa State University Study is presented as a range. The survey identifies the maximum number of field events per year, without requiring "field resting", is between sixty-four (64) and seventy-nine (79). The survey also identifies the maximum number of field events before the playing surface is damaged beyond rejuvenation requiring reconstruction at seventy-nine (79) events. However, 64 athletic field events per year allow for only a seasonal field recovery. From these numbers we utilized 1/3 of the difference between the 64 events for recovery and the 79 events for resting to determine the sixty-nine (69) events per year, as indicated in the formula utilized for Summit's community.

Baseball fields were not specifically evaluated in the Iowa State University Study; therefore an alternate formula was applied since the anticipated value of degradation for baseball fields is less compared to other sports that continuously and vigorously play the entire field limits. This criteria was utilized to develop the maximum events per field per year. The formula then progresses by calculating the total number of events per season divided by the total number of possible events per field to obtain the actual number of fields required for a specific activity.

It is the intent of Dr. Minner and his research with Iowa State University, to generate a more "sport-facility-specific" survey that can be conducted on a national basis. While Dr. Minner's work in this field continues, he was kind enough to share his general findings, at this time, to assist the City of Summit's Master Plan preparation. CME Associates has utilized this survey information and tailored it to the specific needs and demands of Summit to create a reasonable and representative athletic field rating system that can be used to assess the conditions of the City's fields and ultimately determine field needs.

The results of the preliminary Iowa State University Study Approach are identified in **Figure 6**. The athletic field schedule, study data and study calculations used are provided in the Appendix of this report.

C. Final Athletic Fields Needs Analysis Comparison and Recommendations

It is important to recognize that the Needs Assessment process is not a precise science. Many divergent factors impact upon such evaluations beyond the available facilities and the number of people who wish to use those facilities. This is particularly true with regard to playing fields, an area of critical concern to Summit. Beyond the obvious concerns of participants, teams, games, practices and available space, the Needs Assessment should consider scheduling limitations, the prospect of inclement weather, field size and other considerations, such as the age and size of the participants, as well as the practical aspect of age-appropriate activity requirements. The Needs Assessment should also consider field maintenance as a critical requirement, including the provision for field rest and restoration.

The first step in the evaluation of the Needs Assessment data is to determine how the results will be utilized. Two studies, each using different approach parameters and two methods of registrant data projections (League data and Census data) have been conducted. At this point in the study there are four (4) different pieces of information or four (4) possible results that can be obtained. To allow for the realization of a potential registrant boom, due to trends in athletic activities, in any one of the athletic groups, the census data results and the league data results have been merged to create only one set of results for each approach. While one could easily argue that the census data should take precedence over the league data, or vice-versa, it was the goal of this Master Plan to make a conservative and reliable assessment of the City's needs. Therefore, each list of results for the Current, Short Term and Long Term was reviewed utilizing the highest resulting need quantity for each athletic category identified in the study. The final results for each approach are identified in the previous "Results" section 4A and 4B of this report and in the appendix.

Surprisingly enough, the quantity of fields needed as identified in the analysis for the two approaches are considerably uniform. Generally, the needs assessment of the Events Driven Approach identifies a higher quantity of ball fields (little league baseball, senior league baseball, softball, etc.) than that of the Iowa State University Approach and conversely the Iowa State University Approach identifies a higher need for Play fields (soccer, football, lacrosse, etc.). When considering the parameters of the two formulas, that is, the Events Driven Approach is generally considered a field "scheduling" and "availability" approach and the Iowa Approach is generally considered a field "condition" and "maintenance" approach, the results are consistent with what one would expect.

The results under the Events Driven analysis project a greater need for ball fields, not due to field conditions, but due to field availability. The daily wear and tear of baseball events conducted on baseball fields has been assumed to be less than that of events on a play field. Logically, this assumption provides validity to the results of the Iowa State

analysis, which indicates a heightened need for play fields as a result of a greater intensity of play on the field surface.

After a review of the results and comparing the Events Driven and the Iowa State University Study approaches, one final determination must be implemented to complete the athletic needs portion of this report. That determination is, what approach should be utilized to best reflect the needs of the City of Summit?

Basically there are only two (2) outstanding and driving factors that should be considered when evaluating the recreational demands and the field deficiencies of the City.

- a) The currently experienced pressure for additional field demand within the City is related to a reduction in athletic field availability due to restricted playability perpetuated by poor field conditions.
- b) The currently experienced pressure for additional field demand within the City is related to a lack of athletic field facilities and an exponential increase in registrants of scholastic and youth sports.

Both issues are equally valid, the lack of field availability, as described, is identified through the application of the Iowa State University Study Approach. The lack of athletic field facilities, as described, is identified through the Events Driven Approach. Since, steps have already been taken to address maintenance issues of the existing fields, the Events Driven Approach should be the focus of this Recreation Master Plan.

In accordance with the Events Driven Approach results, the final athletic field "Needs Analysis" for the City of Summit is as described in Figure 7.

There are a number of other organized recreational activities, specifically court related activities, that are currently conducted in the Summit community and do not lend themselves to either of the two methods of analysis previously described in this report. To determine the current and future need for facility improvement and expansion, a less formal calculation was implemented along with significant consideration of discussions conducted with the individual sport groups.

Tennis

Summit Scholastic Tennis:

According to discussions with the Summit High School Athletic Director, currently there are three (3) scholastic tennis teams in the City.

Varsity (30 participants)
Jr. Varsity (31 participants)
Middle School (45 participants)

The Middle School team is comprised of approximately 70% Summit High School Freshman and approximately 30% Summit Middle School participants. The scholastic tennis teams occupy the existing tennis courts located at Tallock Center and Memorial Field as well as occasionally borrowing court time from the private Oak Knoll School. Currently a total of 8-9 courts are necessary to conduct this scholastic activity between

August 23rd and October 31st for a 16-week fall tennis season. Scholastic events consist of 3 singles matches and 2 double matches lasting approximately 45 minutes to 1 hour each. Scholastic practices are conducted with approximately 8 participants per court lasting approximately 2 hrs. / 5 days a week, with the exception of the Summit Middle School team which conducts practice only 2 days a week.

Summit Recreational Tennis:

The Summit recreational tennis program is generally considered an instructional league. The instructional program begins on April 12th and runs through May 26th for a 7 week, spring program. Lessons are conducted Mondays - Thursdays from 9am to 12pm / 3 hrs. at the six (6) existing Memorial Field tennis courts.

Summit Tennis Association:

The Summit Tennis Association conducts multiple instructional tennis programs for a wide range of Summit resident age groups. These groups include the Summit Girl Scouts and elementary schools beginning at age 7 to senior adults. The Association offers a number of instructional programs as well as workshops for coaches and resident tournaments.

The Summit Tennis Association offers the following tennis programs:

Tennis Reacquainted	(280 participants)
Summit Middle School Tennis	(60 participants)
Tennis Mentoring Program	(14 participants)
Tennis Coaching Workshop	(32 participants)
Elementary School Program	(220 participants)
Family Tennis Program	(20 participants)
Ladders Tennis Program	(57 participants)
Adult Annual Tournament	(45 participants)
Junior Annual Tournament	(17 participants)
Girl Scout Tennis Program	(15 participants)
Tennis Socials	(76 participants)
50 and old Tournament	(14 participants)
Free Tennis Lesson Blitz	(200 participants)

The programs and tournaments offered by the Summit Tennis Association are characterized as casual activities and are not conducted in an extended season or daily schedule. The tournaments sponsored by this organization are typically scheduled over the course of one weekend or limited to 1-2 consecutive days outside of the scholastic tennis season.

Tennis Court Needs Assessment:

To effectively schedule the practices and games of the Summit scholastic tennis teams a total of 5 tennis courts per team are required. This quantity of courts would effectively accommodate one (1) set of 3 singles matches and 2 doubles matches, lasting approximately 45 minutes to 1 hour for each set. A maximum of three (3) sets are

conducted during a scholastic competition requiring 2 hours and 15 minutes to 3 hours per game event and practice events are limited to 2 hours, 1 hour recessions during the weekdays. For the Summit scholastic tennis teams (3 total) it has been determined that five (5) courts per team are required, for a total of fifteen (15) available tennis courts in order to satisfy the scholastic tennis needs of the City.

The court needs for Summit Recreational Tennis involves limited participation when compared to that of the scholastic teams and does not overlap or conflict with the scholastic teams since it is conducted in the fall season. It has been determined that the Summit Recreational Tennis can effectively conduct their program on the same fifteen (15) tennis courts required by the scholastic leagues. The Summit Tennis Association plays a significant role in the Summit tennis community by providing the instructional and recreational tennis needs to the non-competitive residential population as well as the active senior and youth tennis populations. Adequate tennis court availability should be provided for these needed programs, however the ability to provide a flexible schedule combined with the limited program duration of these events makes court availability a function of scheduling as opposed to tennis court quantity. As a result, the proposed operation of fifteen (15) tennis courts will also satisfy the Summit Tennis Associations needs.

In conclusion, it is recommended that the "Tennis Needs" for the City has been determined at fifteen (15) operational courts.

Currently ten (10) tennis courts, of playable condition, exist and are utilized in Summit. There are an additional six existing tennis courts located at Wilson Park, however these courts have been closed for some time. An existing conditions and geotechnical study of the Wilson tennis courts was conducted by T&M Associates. The result of the study indicated that the facility requires a complete reconstruction at a substantial cost to the City. The reconstruction of the Wilson courts would only satisfy the quantitative aspect of the tennis needs and not the location considerations for a central tennis facility. Further, the scholastic groups should locate the courts to divide into facilities containing multiples of five (5) tennis courts allowing the full utilization of the courts. Discussions with the Summit Tennis Association revealed the need for a centralized tennis facility where the group's activities with large numbers of participants could be conducted.

With this consideration it is recommended that the six (6) existing courts at Memorial Field be expanded to provide four (4) additional courts for a total of ten (10) tennis courts. This will satisfy the needs of two scholastic teams as well as provide the recommended central or core tennis facility desired by the Tennis Association. The remaining need for five (5) courts can be satisfied by the expansion of the existing four (4) courts located at Tatlock Center with one (1) additional court creating the third bank of five courts. This tennis facility will service the needs of the third scholastic tennis team as well as Summit Recreational Tennis.

D. City of Summit Community Recreational Survey

In an effort to determine the needs and desires of the residents of the City of Summit, the Summit Board of Recreation sent out a Recreation Survey to 8,100 households in August 2004. Of the 8,100 households that were offered the survey only 272 responded, about 3.4%. The categories consist of Areas of Need, Recreation Interests, Personal Opinions, and Attendance. While the response was limited, we have prepared the following assessment.

The Areas of Need portion of the survey indicates what additional facilities the residents believe are needed. The results from the survey indicate that bike trails are the most needed amenity for the City of Summit with 67.28% responding YES, 19.12% responding NO, and 13.60% OMITTING. Jogging/Walking Trails are next with 63.97% responding YES, 22.43% responding NO, and 13.60% OMITTING. And third on the list are Athletic Fields with 56.25% responding YES, 27.21% responding NO, and 16.54% OMITTING. The summary list includes all categories in which the percentage of YES responses are higher than the percentage of NO responses. These categories include Symphonies and Park Concerts, Nature Areas, Playground Areas in Parks, Senior Activities, Landscaped Park/Gardens, and a Senior Center.

The Recreation Interests portion of the survey indicates what recreational activities the residents and their families are interested in. The results from the survey indicate that Sports and Athletics are of most interest to the residents with 55.88% responding with GREAT INTEREST, 22.79% with SOME INTEREST, 13.60% with NO INTEREST, and 7.72% OMITTING. Outdoor Fitness is next with 45.96% responding with GREAT INTEREST, 33.09% with SOME INTEREST, 11.76% with NO INTEREST, and 9.19% OMITTING. And third on the list are Environmental Interests with 20.22% responding with GREAT INTEREST, 48.53% with SOME INTEREST, 22.06% with NO INTEREST, and 9.19% OMITTING. The summary list includes all categories in which the percentage of GREAT INTEREST responses or SOME INTEREST responses is higher than the percentage of NO INTEREST responses. These categories include Performing Arts, Self Improvement, Arts and Crafts, Special Events, Hobbies, Aquatics, and Indoor Fitness.

The Personal Opinions portion of the survey indicates what the resident's personal opinions about a variety of issues are. The results from the survey indicate that a Need for More Fields are of most interest to the residents with 38.24% STRONGLY AGREEING, 19.85% AGREEING, 14.71% DISAGREEING, 13.97% STRONGLY DISAGREEING, 3.68% OMITTING, and 9.56% NOT KNOWING. Supported Lighted Facilities is next with 32.72% STRONGLY AGREEING, 28.31% AGREEING, 10.29% DISAGREEING, 18.38% STRONGLY DISAGREEING, 2.94% OMITTING, and 7.35% NOT KNOWING. The summary list does not include answers to any other categories for this section.

* "Omitting" or "Omit" reflects surveys on which this responding party did not answer a particular question.

The Attendance portion of the survey indicates approximately the number of times residents and their family members visited certain facilities within the City of Summit. The results from the survey indicate that Memorial Athletic Fields are frequented most by the residents with 43.01% visiting 12 to 24 TIMES A YEAR, 13.24% visiting 6 to 12 TIMES A YEAR, 9.19% visiting 2 to 6 TIMES A YEAR, 5.51% visiting ONCE A YEAR, 23.16% NEVER visiting, and 5.88% OMITTING. The remainder of the list of facilities in the survey all had the highest response percentages indicating that the residents NEVER have visited the sites.

Recreation Survey Results

12/20/04

A. AREAS OF NEED

	YES	NO	OMIT
Bike Trails	67.28%	19.12%	13.60%
Jogging/Walking Trails	3.97%	22.43%	13.60%
Athletic fields in general	6.25%	27.21%	16.54%
Symphonies, Park Concerts	55.15%	23.53%	21.32%
Nature Areas	42.28%	34.56%	23.16%
Playground areas in parks	42.28%	35.66%	22.06%
Senior Activities	1.91%	30.51%	27.57%
Landscaped Parks/Gardens	1.91%	37.13%	20.96%
Senior Center	36.76%	35.29%	27.94%

B. RECREATION INTERESTS

Sports and Athletics	55.88%	22.79%	13.60%	7.72%
Outdoor Fitness	45.96%	33.09%	11.76%	9.19%
Environmental	20.22%	48.53%	22.06%	9.19%
Performing Arts	31.25%	45.22%	14.34%	9.19%
Self Improvement	9.93%	44.49%	32.35%	13.24%
Arts & Crafts	19.49%	43.01%	24.63%	12.87%
Special Events	20.59%	40.07%	27.57%	11.76%
Hobbies	11.40%	40.07%	35.29%	13.24%
Aquatics	23.90%	37.13%	28.31%	10.66%
Indoor Fitness	29.78%	33.82%	25.00%	11.40%

C. PERSONAL OPINIONS

Need for More Fields	38.24%	19.85%	14.71%	13.97%	3.68%	9.56%
Support Lighted Facilities	32.72%	28.31%	10.29%	18.38%	2.94%	7.35%

The Summit Community Recreation survey provides an insight to the recreational activities and program demands as identified by Summit residents. The survey responses provide the ability to prioritize these demands and allow for appropriate planning of their construction, implementation and incorporation into the future Summit recreational inventory. The survey results identify the highest priority and demand, by residents, for additional or expanded jogging/walking and biking trail facilities. 67.28% of the resident population participating in the survey identified a need for Bike trails, 63.97% identified a need for jogging/walking trails with the second highest response of 45.96% identifying a "great" interest in outdoor fitness.

The highest priority of recreational interest for the City's resident population is sports and athletic field facilities.

Jogging/Walking and Bike Trails

Throughout the City there are a number of existing trails, the majority of which are limited to existing County parks occupying a portion of the Summit boundaries. The combination of these improved and unimproved trails and the disconnected circulation patterns limit their utilization by residents. CME Associates, in coordination with the Alternate Modes of Transportation Committee, has reviewed the possibility of planning for a long term, contiguous trail circulation plan utilizing public street Right-of-Ways, existing Parklands, existing school property and potential trail corridor and easement acquisition to provide a continuous trail route to key recreational sites within Summit.

It is recommended that a three-phase trail plan be considered to provide pedestrian linkage to key elements of Summit's existing recreational inventory. Upon completion of the third phase of this plan all existing City parklands, schools and County recreational facilities can be connected utilizing a pedestrian and bicycle friendly accessible circulation system. This alternate circulation system can reduce the vehicular traffic within the City as well as the realization of regional environmental benefits.

Phase One: Primary Route

Beginning at Memorial Field Park to Larned Road linkage to Brayton Elementary School to Oakland to Maple Street linkage to Mabie Park, (past connection and YMCA, crossing at existing traffic lights) through downtown to Euclid to Beechwood Road to Hillcrest Avenue to Woodcroft Road to Bedford Road linkage to Canoe Brook Parkway to Hartley Road to Butler Parkway linkage to Tallock Center. Continuing from Maple Street to Kent Place Boulevard linkage to Lincoln-Hubbard Elementary School and Summit Senior High School to New Providence Road linkage to The Transfer Station Property.

Continuing from Kent Place Boulevard to Madison Avenue to Lafayette Avenue second linkage to Washington Elementary School. Continuing from Kent Place Boulevard to Mount Vernon Avenue linkage to Passaic River County Park and river crossing bridge.

Phase Two: Secondary Route

Continuing from Primary Route at Kent Place Boulevard linkage to Summit Senior High School to High Street to Beekman Road to Hilltop Terrace to Springfield Avenue linkage to Wilson Elementary School and Wilson Park to Pine Grove Avenue to Manor Hill Road to Ashland Road linkage to Memorial Field, Brayton Elementary School and Primary Route.

Continuing from Primary Route at Larned Road (through Memorial Field Park) to Magnolia Place to trail route at end of Magnolia Place to Glenside Avenue linkage to Glenside Fields and Watchung Reservation County Park.

Continuing from Magnolia Place to Mountain Avenue to Morris Avenue to Ashland Avenue linkage to Jefferson Elementary School, Summit Community Pool and Hidden Valley County Park.

Continuing from Summit Recreation Center at Morris Avenue to Shupike Road to Harvard Street to Briant Parkway linkage to Briant County Park to Springfield Avenue to Lenox Road to Whittedrege Road to Hobart Road to Summit Avenue to Euclid Road to Beechwood Road linkage to Primary Route.

Phase Three: Tertiary Route

Continuing from Primary Route at Canoe Brook Parkway to Iris Road to River Road linkage to Summit Golf Course to Greenfield Avenue linkage to Tatlock Center. Continuing from Primary Route at Beechwood Road to Hill Crest Avenue to Fernwood Road to Hobart Avenue to Whittedrege Road linkage to Secondary Route. Continuing from Pinegrove Avenue linkage to Secondary Route to Valley View Avenue to Blackburn Road to Warwick Road linkage to Franklin Elementary School to Colt Road to Cleveland Windsor Road to Silver Lake Drive to Druid Hill Road to Magnolia Place linkage to Secondary Route.

Refer to **Figure 8**, "Proposed Jogging/Walking and Bike Trail Map" locations and recommended routes.

Bikeway and Pedestrian Trail Planning

Prior to commencing a project like this, the City Planning Office should further review the potential trail routes to determine other specifically targeted sites, such as hospitals, civic centers, senior centers, scenic views and historic places, and the priorities for providing the linkages, as described. The specifically targeted sites identified in the three-phase approach described above are:

The proposed bikeway/pedestrian route should be designed in compliance with the requirements and recommendations of the New Jersey Department of Transportation and the American Association of State Highway and Transportation Officials (ASHTO) "guide for the development of bicycle facilities. Compliance with these regulations and discussions with the NJDOT will ensure acceptance for potential grant funding opportunities. The guidelines generally identify that a two-directional shared use Bicycle/Pedestrian route is recommended with a minimum path width of 10 feet, further suggesting a landscape strip between the bicycle route and the pedestrian route to delineate a separation. A one-directional shared Bicycle/Pedestrian route is recommended at a 6 feet wide minimum. The NJDOT prefers a two-directional shared

Another important aspect of the trail system planning process is the identification, location and utilization of existing pedestrian and bike routes which are already improved and can be incorporated into this plan to limit City expenditures. The existing topographic conditions of each route should be carefully studied to ensure that ADA (Americans with Disabilities) compliant accessibility is feasible. The physical conditions as well as the boundary limits of existing streets and available City owned land must be further reviewed when establishing the planned route.

Phase Three Targeted Sites
Summit Golf Course
Franklin Elementary School
Dense Residential Area to the southwest
Dense Residential Area to the northeast

Phase Two Targeted Sites
Wilson Elementary School
Wilson Park
Glenside Fields Park
Watchung Reservation County Park
Jefferson Elementary School
Summit Community Pool
Hidden Valley County Park
Summit Recreation Center
Briant County Park

Phase One Targeted Sites
Memorial Field Park
Brayton Elementary School
Mabie Park
Tatlock Center
Washington Elementary School
Lincoln-Hubbard Elementary School
Summit Senior High School
The Transfer Station Property
Passaic River County Park

Bicycle/Pedestrian route at a 12 feet wide minimum. In addition to the width dedicated to the bikeway/pedestrian trail a 2 feet wide shoulder or transition area should be provided with a maximum slope of 1:6.

Careful consideration should be given to the utilization of existing cartway areas within existing roadways for determining and designing a trail route. In some instances, where there is adequate roadway width to accommodate a striped bikeway lane, significant cost savings can be afforded to the City. However, one must consider traffic circulation, travel speeds, traffic volume and peak hours of traffic, visibility of the cyclist and manipulation or elimination of on street parking. There are four (4) NJDOT recommended designs for providing for bike lanes within existing roadway pavement; roadways with no curb and gutter should provide for a 4 foot wide bikeway, where parking is striped and permitted a 5 foot wide bikeway should be provided between the parking and the traveled lane, where parking is permitted but not striped 11 feet from the curb face should be provided (without a curb face 12 feet), where traffic volumes are considered high an additional 1 to 2 feet should be provided.

In the Downtown areas of the City, where existing sidewalk is utilized for retail access and the widening of roadways or elimination of street parking is not a viable option, the NJDOT should be consulted to obtain recommendations for implementing "Share the Road" signage to ensure acceptance by funding agencies.

The NJDOT "guide for the development of bicycle facilities" identifies the following factors that must be considered before planning a route:

- Skill Level of Users
- Motor Vehicle Parking
- Barriers
- Crash Reduction
- Directness
- Accessibility
- Aesthetics
- Personal Security
- Stops
- Conflicts
- Maintenance
- Pavement Surface
- Truck and Bus Traffic
- Traffic Volumes and Speeds
- Bridges
- Intersection Conditions
- Costs/Funding
- State and Local Ordinances

Further, it is suggested that the trail designer consult the provisions and recommendations of the Federal Highway Administration, 1994 publication "Selecting Roadway Design Treatments to Accommodate Bicycles" for expanded guidance.

Recreational Trends Review

This section of the Recreation Master Plan is limited to outdoor recreation uses only and explores the current trends in passive and active recreational activities throughout the State and Country. While the City Board of Recreation strives to provide a wide variety of recreational opportunities it must also consider the population majority as well as the facility construction and maintenance costs and funding sources prior to identifying commitments to any one particular opportunity. The Summit Recreation Board values the insight, comments, and concerns of residents regarding recreational opportunities and for this reason has determined that it would not be appropriate to prioritize the list of trend activities. In September of 2004 a recreational survey was distributed to over eight thousand Summit residences to afford every family an opportunity to identify their recreational interests and concerns. The survey responses were limited, however it still provides some insight to help guide the Board of Recreation in future planning tasks.

The following recreational trends list has been prepared to serve as a resource guide only, The listed activities do not represent any recommended order or priority.

- | | |
|-----------------------|---------------------------------|
| • Skate Park | • Arboretum |
| • Dog Park | • BMX Bike Course |
| • Boat Launch | • Bicycle Trail |
| • Sitting Garden | • Community Garden |
| • Pitch and Putt | • Rock Climbing |
| • Volleyball | • Therapeutic Garden |
| • Walking Trail | • Bird Watching |
| • Shuffleboard | • Reading Garden |
| • River Beachhead | • Sculpture/Art Garden |
| • Handball/Squash | • Cross-Country Skiing |
| • Lawn Bowling | • Spray/Pool Park |
| • Billiards | • Archery |
| • Tetherball | • Sleigh Riding |
| • Ice Skating | • Amphitheater |
| • Badminton | • Fishing |
| • Horseshoes | • Lawn Sunning Area |
| • Model Airplane Area | • Sensory Garden |
| • Bocce | • Environmental Education Trail |
| • Disc (Frisbee) Golf | • Mountain Biking |
| • Dance Facilities | • Dog Walking Trail |
| • Roller Hockey Rink | • Jogging/Fitness/Hiking Trail |
| • Miniature Golf | • Butterfly Garden |
| • Croquet | • Display Garden |

E. Public Meetings and Community Sentiment of the Recreation Master Plan

The Summit Board of Recreation and Summit Board of Education have taken every step to ensure that the issues and items of concern identified in this Recreation Master Plan appropriately reflect the sentiment and concerns of the City's resident population. These Boards have conducted six (6) public meetings, in open forum and have dedicated countless volunteer hours in an effort to adequately assess the recreational needs of the Summit community. The public meetings were appropriately advertised in local newspapers and posted on the public information kiosk at the Summit Recreational Center as well as the Recreation departments web page.

The meetings were conducted on:

Public Meeting #1- May 27, 2004
Public Meeting #2- July 6, 2004
Public Meeting #3- August 3, 2004
Public Meeting #4- September 14, 2004
Public Meeting #5- October 12, 2004
Public Meeting #6- March 3, 2005
Senior Citizens Special Meeting- September 23, 2004

In addition to the public meetings, specific meetings were conducted with each Summit athletic sport group, individually to obtain information pertaining to current and future needs related to team size, field availability, field conditions, etc., of their organization and represented activity. Special meetings to address the concerns of Summit's senior citizen population, the Tennis Association and the Alternate Modes of Transportation Committee were also conducted to achieve a full understanding of the communities recreational concerns and future visions. In addition to the special public meetings, the Board of Recreation also received public comments during its regularly scheduled monthly meetings.

Many recreational related items were discussed as well as non-recreational related issues during the public meetings. Generally, the responses and statements by Summit residents were focused on the present and deteriorating conditions of existing athletic fields and facilities. It is for this reason that a thorough and complete analysis of the athletic needs of the City was exhaustingly examined and determined.

The second recreational issue concerning the community was the recreational budget. The residents revealed a deep understanding of the City government budgeting process realizing that the funding for recreational improvements in Summit must first be afforded funding allocation. During the meetings the City's recreational budget was reviewed and explained to residents. Residents requested direction from the Recreation Board providing assistance to the Board for ensuring that adequate funding be designated for the recreational improvements and long-term maintenance of such improvements. With type

of support and community understanding of government processes it is clear that the community does not and will not consider this Recreational Master Plan process lightly.

Another major recreational concern identified by the residents during the public meetings, was that of providing for passive recreational opportunities and improving awareness and the quality of existing passive recreational amenities. Many suggestions were offered by the general public ranging from pedestrian walking and hiking trails to dog parks and concert facilities. Each of the issues suggested were sources of discussion and make record of their concerns for future recreational facility construction and expansion of existing recreational facilities.

Highlights of the public recreational concerns are as follows:

Senior Center

Residents voiced the need for a Senior Center for Summit's older population. The need for a place to mingle, attend various instructional lessons, lectures, and classes is a wish for many of the seniors. Buses for senior transportation and field trips were also discussed at the meetings as well as the financial component of the services. See "Senior Citizen Center and Programs" section F of the Master Plan.

Passive Recreation

Even though the City has its greatest challenge with providing active recreation for its citizens, passive recreation has become a concern as well. Within the boundaries of the City, providing trails, paths, and benches become a much-needed escape for Summit's residents. Walking distance from residential areas to these passive locations would present an ideal design and function for most accessible routes.

Specifically, Butler Parkway walking path was discussed at the meetings and the expansion of existing walking paths to the Washington school and Tatlock Center areas.

Dog Parks

A fenced in dog park has been suggested for area residents use. The park can enforce dog licensing, can generate small amounts of funding for the purpose of maintenance through pet registrations to use the park. In recent years the trend towards developing dog Parks, otherwise known as Bark Parks has been on the rise, promoting socializing among dogs as well as the dog owners. The recommendation of a dog park in the City met with a few opponents, mainly concerned with specific locations. A location out of the way from pools, residential homes, and high pedestrian/vehicular activity should be considered.

Athletic Field Lighting

Field lighting has been proposed to extend the playing time at the City's fields. This issue has generated concern from residents who are in the general vicinity of the proposed lighted fields. Extended field hours, residents argue, would disturb their home life with noise and bright lights. Proponents for the lighted fields point out the extended hours would serve to provide some relief to Summit's deficit of available fields for the various sport teams.

Tennis Courts

Many of the residents that do not have school aged children would like to see the City fund projects which serve to meet the recreation needs of the adult population in lieu of the recreation leagues. Tennis, many responded, is a sport that adults enjoy playing as well. Often the courts are unavailable to them because of the school's tennis teams. The courts that had been at Wilson Elementary School are no longer in existence because of their deteriorated condition. Also, lighted courts would make available the existing courts to many more people that are now unable to use them because of the limited amount of daylight and the amount of people using them.

Bathroom Facilities

Response from the survey indicated that the bathrooms should be kept in better condition as well as keeping them open while the fields are in use. The locks on the bathroom doors are often locked during practices and games.

The Transfer Station Property

Discussion of the possible uses for the transfer station was limited during the public meeting process. A separate Transfer Station Task Force has been formed, to assess the site and develop several conceptual site plan proposals.

Synthetic Turf Fields

Converting some of the existing fields into synthetic turf fields has been discussed with strong opinions on both sides. Parents are concerned with injuries that could occur such as turf burn from falling on the field. Concerns though of the conditions on the natural grass field's assists the arguments of the proponents for the installation of synthetic turf. Fields with synthetic grass are more durable to withstand more constant play than natural grass. This is an obvious benefit for Summit since there are not enough fields to let any rest for long periods of time.

Shade Trees and Landscaping

Concerned parents raised the issue of the need for more shade trees, especially at the tot lots. Washington tot lot is heavily used according to one parent at the public meeting because the parents can stand in the shade more comfortably. Shade trees can also be considered for plantings at various locations beside park benches, and viewing areas for the sport games.

Utilization and Recreational Improvement of Facilities Outside Summit
Development of fields outside Summit was suggested at one of the public meetings.

Summit Symphony Facilities
One of the members of the Summit Symphony voiced her concerns for a place to have concerts in the park and other various outdoor music shows.

Tot Lots and Play areas
Tot lot areas are thoroughly utilized and enjoyed by the City's children and parents. These play areas throughout the city are in need of some expansion and updates in order to meet the needs of the youngest population in Summit and current standards.

F. Senior Citizen Center and Programs

The City of Summit enjoys a significant population of senior residents who are active, interested and involved in community affairs. The City of Summit offers a variety of recreational activities, both active and passive, that are appropriate and in some cases tailored to participation by seniors. As part of the assessment of Summit's recreational needs and interests, the general evaluative process of the Master Plan encompassed the interests of senior citizens. Additionally, the Board of Recreation scheduled and conducted a public meeting specifically dedicated to Summit seniors which was well attended and resulted in an informative exchange of thoughts and ideas. While the conceptual and other recommendations contained in the Master Plan will benefit senior residents of Summit, the Master Plan Process did reveal a clear expression of need/interest by Summit residents.

First, a substantial interest was expressed by Summit seniors in the establishment of a Senior Center in the City. Presently, Summit lacks any facility or other location that is dedicated exclusively, or in significant part, to the use by seniors for programs, social gatherings and other similar activities. While there are senior programs conducted by the Recreation Department at the Recreation Center on Morris Avenue, input from seniors reflected that both the programs and their access to the Recreation Center for purposes other than attending programs was limited. Concern was also expressed that the physical location of the Recreation Center on Morris Avenue presented transportation and access difficulties for some seniors.

The evaluation of the available facilities as part of the Master Plan Process reveals that the Cornog Field House at Memorial Field would be a logical and appropriate site for a senior center. While the location of the Cornog facility is not in walking distance of the City Senior Housing, it is closer and more accessible than the Recreation Center on Morris Avenue. More importantly, the Cornog facility is presently under utilized during the course of the day and therefore would appear to be a site that might be available to be dedicated entirely or significantly to senior use during the day. While it is understood that Cornog is used in the evenings by certain organizations, it is expected that use can either be continued or accommodated at some other location, for example the meeting room at the Recreation Center. The Cornog facility is also recommended by its location immediately adjacent to Memorial field, which offers a variety of active and passive recreational activities that would be available to seniors in addition to any programming or other functions that might be conducted within the Cornog building. For these reasons, it is recommended that the City of Summit consider renovating the Cornog facility to provide the facilities, access and amenities necessary for it to serve as a Senior Center.

The second clear area of interest expressed by the seniors was in additional activities and social programs, such as day trips by bus to appropriate attractions; educational and instructional courses; and other programs. The Recreation Department currently offers an array of programs to seniors and it is our understanding that in response to the expression of need and interest by the seniors in these areas during the Master Plan

Process, the Board of Recreation has already taken steps to expand the programs it offers to seniors and to work with other City agencies to offer additional opportunities and activities for the benefit of Summit's seniors.

5. Maintenance Program for the Department of Recreation & Board of Education

As part of the City of Summit's response to its duty of offering proper recreation opportunities, the Board of Recreation hired a Park Maintenance Project Manager who has created, instituted and oversees a thorough maintenance program for each of the Board of Recreation and Board of Education sites. Maintenance is a key factor in responding to the recreational needs of the community by repairing damaged fields and preserving the state of fields in currently good condition. Without a comprehensive and effective maintenance plan, the benefits of the recreation program will be drastically decreased. The objective of the plan is to provide a routine maintenance program necessary to maintain the athletic fields and grounds in a condition fit for the staging of interscholastic and recreational sports competitions.

To satisfy this goal, the developed plan lists operations necessary to maintain field and facility use, from mowing to aerating fields to winterizing irrigation, specific to each site. Each facility plan is based on the type of sports to be played, the existing conditions and limitations of each site, and potential future plans for renovations and improvements. A copy of the recommended maintenance program has been provided in Appendix E.

The goal of maintenance scheduling is to provide for essential services while eliminating the fluctuating staffing needs from in-season and off-season demands. This is often accomplished in other Cities and Municipalities through outsourcing services needed for park and facility maintenance during peak labor demands. The typical maintenance services that can be performed by privatization usually include building facility maintenance; turf maintenance, mowing and chemical applications, and general park cleanup related to the seasonal peak demand uses. While a particular service may have a higher direct cost associated with the private business, the benefits to the City are improved quality control of the hired services due to stricter accountability requirements, savings associated with retaining employees year round and incurring employee benefit costs such as health insurance, as well as retirement and vacation benefits. As the facilities of the City's parks, schools and existing and acquired open space increases to provide the recreational opportunities described in the "Recreational Needs" analysis of this report the demand for park maintenance will increase and a more efficient and cost effective means of qualified labor will undoubtedly be sought by the City of Summit.

The maintenance plan provided will, in time, improve the resiliency and wear tolerance of the fields through improved drainage, increased turf grass vigor and enhanced recuperation from damage. This plan, with the efforts of a capable staff, will result in improved playing conditions at all athletic facilities.

6. Conceptual Improvement Plans and Existing Recreational Amenities Comparison

Following the conceptual design of potential recreational improvements at the available lands in the City, a review of the conceptual plans was conducted with the Board of Recreation to determine the feasibility of the proposed amenities. The goal of this phase of the recreation master Plan is to re-evaluate the orientation and layout of each existing recreational site to determine the most efficient use of the available lands for recreational purposes. Refer to Appendix D, "Recreational Improvement plans and Cost Estimates.

As identified in the "Recreational Needs" section of this report, the study revealed that the City has a long term, or ten year projected athletic need of:

3	Senior Baseball fields
12	Baseball / Softball fields
11	Tee Baseball
3	Regulation Soccer fields
8	Short-sided Soccer fields
3	Lacrosse fields

The need identified for Baseball / Softball fields appears to be excessive. The needs identified in the study were not completely supported by Summit Junior Baseball organization, which has indicated that although additional fields would be nice to have and could relieve some of the scheduling stress, the organizations are not currently experiencing any alarming field scheduling difficulties. Field issues for the Baseball / Tee Ball leagues were primarily in the beginning of the season when wet conditions prevent the use of the baseball fields, particularly the clay infields. Preseason practices are often moved to parking lots and indoor facilities.

To further explain this difference between the projected needs identified in the study and those experienced by the organization the data and schedule was reviewed again. It was determined that the field availability currently enjoyed by these organizations does not necessarily reflect the existing uses being conducted on regulation sized ball fields. That is, the current locations where these athletic organizations are conducting some of the practices and games are not on regulation ball fields, but rather open areas conducive to practice needs.

To ensure that all the athletic needs identified in the study were capable of meeting regulation guide lines for the organizations being represented and to reduce the liability risk of the City, the study only identifies the current regulation sized ball fields currently existing on City lands. The apparent discrepancy in the perceived need and the actual need of Baseball / Softball fields are therefore directly related to a diminished spatial need of the teams to conduct seasonal practices and games. This report recommends that the Board of Recreation consider the needs identified in the study to ensure adequate field

dimensions for this particular athletic activity is provided to reflect the intensity of this recreational use.

The same correlation with Little League Baseball and Softball, as described above, can be considered for Tee Ball. The current fields utilized for this specific activity are the open areas of play fields, which can accommodate multiple Tee Ball fields with little effort. Considering the intensity of use for the Summit Tee Ball organizations is minimal and limited to a novice or instructional intensity only to promote an understanding of the game and sportsmanship, the "Recreational Need" described in this study is excessive. Although it would be nice to provide regulation sized Tee Ball facilities throughout the City to adequately support the Tee Ball organization, it is not, at this time, considered to be of a priority higher than one of the more intensive athletic sports currently active in the City of Summit.

To better understand the correlation between the conceptual recreational amenities proposed in this plan and those currently occupying the existing available lands, the following chart has been prepared to provide a clear understanding. The bold type indicates the proposed changes at each site (additions and deletions).

Existing School Name	Existing Amenities	Conceptual Improvements
Brayton Elementary	3 Tennis Courts 1 Tot Lot 24 Parking Spaces	4 Tennis Courts 1 Tot Lot 24 Parking Spaces
Franklin Elementary	1 Baseball/Softball field 1 Lacrosse/Soccer field	1 Baseball/Softball field 1 Lacrosse/Soccer field 1 Basketball Court
Jefferson Elementary	1 Baseball/Softball field	1 Baseball/Softball field 1 Multi-purpose field (Soccer, Field Hockey) 1 Basketball Court 1 Tot Lot Pathway (1,500 in)
Lincoln-Hubbard Elementary	1 Baseball/Softball field 1 Soccer field 1 Basketball (non-reg.) 1 Tot lot	1 Baseball/Softball field 1 Soccer field 1 Basketball (reg.) 1 Tot lot (expanded)
Washington Elementary	1 Football/Lacrosse field	1 Multi-purpose field (Soccer, Field Hockey, Football, Lacrosse)
Wilson Elementary	No athletic field opportunity 1 Tot Lot	No Change 1 Tot Lot

Existing School Name	Existing Amenities	Conceptual Improvements
Lawton C. Johnson Middle School	2 Baseball/Softball field 1 Soccer field (multi)	2 Baseball/Softball field 1 Soccer field (multi)
Summit High School	1 Sr. Baseball field 1 Baseball/Softball field 1 Lacrosse field 1 Field Hockey field	1 Sr. Baseball field 1 Baseball/Softball field 1 Lacrosse field 1 Field Hockey field 1 Tot Lot Pathway (709 lf)
Cornog Field House	No athletic field opportunity 1 Field House 1 Recreation Maint. Bldg. 1 Tot Lot 3 Tennis courts 1 Basketball court 2 Handball courts 22 parking spaces	No Change 1 Field House To be removed 1 Tot Lot 6 Tennis courts 2 Basketball court To be removed 52 parking spaces 1 Multi-purpose field 2 Baseball/Softball 1 Basketball court 1 Pool 1 Clubhouse 1 Maint. Bldg. 1 Pavilion Bldg. 1 Tot Lot 1 Picnic area To be relocated 250 Parking Spaces (resurfaced/restripe) Pathway (2,320 lf)
Summit Community Pool	No athletic field opportunity	
Summit Public Golf Course	1 Pool 1 Clubhouse 1 Maint. Bldg. 1 Pavilion Bldg. 1 Tot Lot 1 Picnic area +- 250 Parking Spaces	No Change No athletic field opportunity

Existing School Name	Existing Amenities	Conceptual Improvements
<u>Glenside Park</u>	Co. K-9 Facility 1 Soccer field 1 Short-Sided Soccer field 26 Parking spaces	No Change 1 Soccer field (Synthetic) 1 Short-Sided Soccer (Synthetic) 54 Parking spaces 1 Inline Rink 1 Tot Lot 1 Comfort Bldg. Pathway (1,080 lf) To be removed
<u>Mabie Park</u>	No athletic field opportunity 2 Tot Lots 2 Bocce courts 2 Basketball courts 1 Horseshoe pits 1 Picnic area	No Change 2 Tot Lots 2 Bocce courts 2 Basketball courts 1 Horseshoe pits 1 Picnic area
<u>Memorial Field Park</u>	2 Baseball/Softball fields 1 Sr. Baseball field 2 Soccer fields 1 Short-Sided Soccer field Running Track Roller skating rink 4 Shuffleboard courts 1 Memorial area 6 Parking spaces	2 Baseball/Softball To be reconstructed 1 Sr. Baseball field 1 Soccer field To be removed Running Track To be expanded To be removed To be removed 57 Parking spaces 1 Multi-purpose field (Soccer, Field Hockey, Football, Lacrosse) 1 Skate Park Pathway (3,050 lf)
<u>Summit Recreation Center</u>	1 Baseball/Softball field 1 Short-Sided Soccer field Recreation Building 1 Indoor Basketball court +- 24 Parking Spaces	2 Baseball/Softball To Be Removed To Be Expanded 3 Indoor Basketball courts 74 Parking Spaces Pathway (1,400 lf)

Existing School Name	Existing Amenities	Conceptual Improvements
Tatlock Center	1 Multi-purpose field Synthetic (Soccer, Field Hockey, Football, Lacrosse) 1 Track & Field 4 Tennis Courts Field House 1 Tot Lot	1 Multi-purpose field Synthetic (Soccer, Field Hockey, Football, Lacrosse) 1 Track & Field 5 Tennis Courts Renovated Field House Relocated and Expanded Tot Lot 89 Parking spaces Pathway (3,250 lf) 1 Sr. Baseball Field 1 Multi-purpose Field (Soccer, Field Hockey, Lacrosse) 1 Batting cage 2 Basketball courts 2 Platform Tennis courts 2 Comfort Buildings 6 Tennis courts To be removed 2 Tot Lots 81 Parking Spaces Pathway (2,440 lf)
Wilson Park	1 Baseball/Softball field 1 Soccer field 1 Batting cage 1 Basketball court 2 Platform Tennis courts 1 Comfort Building 6 Tennis courts (closed) 1 Tot Lot	

The total recreational improvements identified on the Conceptual Improvement Plans for the existing Summit school sites and existing park sites include:

Quantity	Field	Description
5		Multi-purpose Play fields
		5 regulation size soccer fields (10 short-sided soccer fields)
		5 football fields
		5 lacrosse fields
		5 field hockey fields
2		Baseball / Softball field (200' - 250' outfield)
1		Senior Baseball field (300' outfield)
5		Tennis courts (60' x 120')
5		Outdoor Basketball courts (84' x 50')
2		Indoor Basketball courts (84' x 50')
1		Skate Park (10,00 sq. ft.)
Quantity	Field	Description
1		Inline Hockey Rink (100' x 200')
2		Comfort Buildings
3		Tot Lots
2.98 miles		Pedestrian / Pathways
291		Parking spaces

7. Conclusion

In response to the growing concern over the diminishing quality of athletic fields and the limited recreational opportunities within the City of Summit for the City's residents and sports organization, the Summit Board of Recreation merged forces with the Board of Education to review the existing conditions of recreation in the City of Summit and provide recommendations to address these concerns. The two boards created a "Joint Committee" comprised of representatives from both the Summit Board of Recreation and Summit Board of Education. The Joint Committee has already reviewed some specific concerns regarding the state of recreation within Summit and has begun to address the issue of maintenance of athletic fields and park facilities, proposed expansion of existing recreational facilities and the development of a "Field Access Protocol" for scheduling athletic user fee policy events and field utilization.

The "Summit Recreation Master Plan" is a formal study of recreational needs of the City of Summit and the application of projected needs to identify current, short term and long term recreational goals to be utilized as a planning tool to ensure that adequate recreational opportunities are afforded to the Summit community.

Municipalities are the major sources of daily recreation programs for residents, representing the concept of close-to-home recreation. Communities are responsible for the recreational programming, and special activities for various age groups, as well as providing and maintaining the space for which it can be programmed. As development builds out, communities recognize open space preservation and recreation as imperative components in community planning. As a part of the planning process, open space preservation adds to the economic and social value of an area, protecting recreational opportunities and enriching the quality of life within a community.

Current population statistics, based upon the 2000 census, identifies a population of 21,131. The City population is increasing and the need for additional recreational areas and refurbishing of existing facilities is supported by aging existing facilities, recreational trends, an increasing population of recreational attendees, changing recreational facilities safety standards (U.S. Consumer Product Safety Commission-C.P.S.C., National Playground Safety Institute-N.I.P.S.I. and National Recreation and Park Association-N.R.P.A.), and national accessibility standards (Americans with Disabilities Act-A.D.A.). For the past fifteen (15) years, Summit has been burdened with the responsibility of providing City residents with adequate recreational facilities and opportunities despite insufficient existing facilities, limited expansion possibilities and diminishing existing field conditions. Like many other towns, Summit is a fully developed community with limited viable options to create additional playing fields.

Since the Board of Recreation has the responsibility of scheduling active recreational events on a regular and daily basis, it is easily recognizable that the community's demand for athletic fields exceeds the City's supply. However, another area of recreational demand, that is not so easily discernable, is the opportunities and demands of the passive

recreational community. Like a fragile ecosystem, community parklands not only support the obvious and most intense uses of the active community, they also provide opportunities, planned and unplanned, for the passive community. The daily use of open lawn areas, shuffleboard and horseshoe courts, existing woodlands, picnic areas, play lots, trails, sidewalks, footpaths, even just a simple bench located in a park or a school, are opportunities for the passive recreational community.

In 2003, the City of Summit was responsible for providing active recreational opportunities and athletic field availability for 4,462 registrants. The registrants represent a total of 27 different sports league categories ranging from recreation teams to recognized and organizationally sponsored athletic teams, which conducted a total of 3,824 planned sporting events on Summit's athletic fields. It is not only the active athletic community that utilizes the field areas, the open lawn areas are utilized for festivals, graduation ceremonies, community events and sport camps.

A review of existing recreational site locations identifies a total area of approximately 143 acres consisting of nine (9) City owned parks with a total of 85.3 acres and eight (8) school properties with a total of 57.6 acres. The National Recreation and Parks Association (NRPA) has recommended that a Municipality, Borough or City containing approximately 10 acres of parkland and open space for every 1,000 people would adequately meet the community's recreational demand. Of course there is a great deal more in determining what the actual recreational supply is for any one community, nevertheless this formula has been applied in further detail for the Summit community as indicated in section 2C of this report. If we look at Summit's population for the year 2000 with 21,000 people and the minimum NRPA recommended acreage of parkland, we realize that 210 acres of parkland/open space is needed when only 142.9 acres is currently provided.

As can be seen from the above, of the land owned by the City for recreation, there is very little open space available. Thus to satisfy the demands of the citizens, the recreational facilities provided must reflect the desires of the community and must lend themselves to cross-utilization by different sports and non-sports organizations. When looking towards the future for additional field opportunities, serious consideration must be given to "multi-use" fields due to the limited area of the existing and potential park and school lands.

The Recreation Master Plan is a planning guide to provide a system for active and passive recreation for existing and future Summit residents. A plan has been developed which defines the field and facility needs. This plan will identify opportunities of improvement to recreation facilities and prioritize capital expenditures through a needs assessment and conceptual improvement plan.

Parks, open space and recreational facilities are important components related to the quality of life within a community. This document represents a comprehensive Recreational Master Plan, which has been developed as a result of the City of Summit's growing concern over providing quality recreational facilities and its ability to satisfy the

varied and increasing recreational demands currently experienced within the populace. The recreational Master Plan will investigate the past and present demands placed upon the City's existing facilities, evaluate those facilities ability to respond to current needs, and in a proactive fashion, explore statistical data to evaluate the anticipated future recreational trends and future needs for the Summit community.

In reaction to the previously stated concerns, the Summit Board of Recreation set out to assess the current state of the City's parks and recreation areas and develop a plan of action to meet the needs of its citizens. CMB Associates developed a three-phase analysis for the City of Summit by analyzing the existing park inventories, creating a unique and tailored needs assessment strategy and developing conceptual improvement plans.

A review of the existing sites that were identified for the purpose of this Master Plan reveal that, in general the school tracts offer little in the way of providing additional opportunity for increasing Summit's recreational inventory. The majority of these sites have already been utilized to their fullest potential with school facility expansion necessary to accommodate the fluctuation in student enrollment over the past few decades. The limited available open space that is identified on the inventory maps for these parcels is currently over utilized for recreational purposes, identified by overlapping or shared sport uses. For example many of the open lawn areas of the schools are occupied by a shared use between multipurpose fields (soccer, lacrosse, football and field hockey) and baseball fields (senior baseball, Little League baseball and softball). A shared use athletic field provides the most efficient use of the limited open space as observed at the school sites, provided a seasonal schedule of sports activities is adhered to. However, the present arrangement or layout of the shared fields at the schools impose conflicts with seasonal playing surfaces creating clay infields of spring baseball activities to overlap onto the fall soccer field playable area, as evident at Franklin, Lincoln-Hubbard and the Middle school. In addition to scheduling conflicts, the overlapping of multipurpose fields and clay infields presents potential tripping hazards to athletes playing on inconsistent surfaces as well as increased maintenance issues. Another conflict of concern with the shared field arrangement is the overlapping use of baseball outfields, as evident on the Middle school and lower Memorial field, which present the potential hazard of outfielders on separate fields colliding with each other.

What are the capabilities and limitations of recreational facilities and fields? This question is a key to determining the solution to not only the City of Summit's active recreational needs, but also many other municipalities. City officials want to know how many fields to build to anticipate capital improvement expenditures, coaches and user groups want to know for availability and scheduling purposes as well as for transportation convenience, and the maintenance manager wants to know so that an effective management program can be developed to control field conditions. The answer lies within each facility by quantitatively assessing the maximum usage of the field based on recreational requirements and the maximum usage before the field-playing surface is rendered unplayable.

The Needs Assessment is an evaluation that compares the current supply of recreational facilities with the current demand for recreational opportunities in the City of Summit. Unfortunately, there is no single calculation that can be employed to calculate, with any definitive precision, the specific number of fields Summit needs now or in the future. Two (2) methods, the "Events Driven Approach Analysis" and the "Iowa State University Study Approach," have both been implemented, utilizing current athletic registrant data, to develop this Needs Assessment. This assessment and the Master Plan will serve as one basis for making recommendations for planning priorities to meet current and future demands for active and passive recreational opportunities in the City of Summit.

The Events Driven Approach is a method specifically developed to determine the athletic field availability and ultimately the potential field needs within the City of Summit. This approach considers the number of athletic registrants or participants, from all organizations currently operating in the City, to determine the total number of teams associated with that activity. In this initial phase of the formula, specific sport groups were interviewed to determine the number of participants per team followed by verification of the registrant data by the Board of Recreation. The total number of teams determined for each specific activity was then formulated to quantify the total number of games and practices, described in this report as "events" for that specific activity. A comparison was then made between this data and the expected total number of events that any one field can possibly accommodate in one playing season.

This "Approach Analysis" is a formula that has been developed by CME Associates to determine the current athletic facility requirements and predict future facility needs based on athletic field availability. This approach does not consider existing or future athletic field maintenance or conditions of the playing surface.

The Iowa State University Study Approach is another method utilized to analyze the field needs within the City of Summit based on the athletic field durability. Dr. David Minner at Iowa State University has been occupied with this universal dilemma of developing an accountable method for determining the limits of playing surface capabilities. Dr. Minner has, for the past few years, been conducting a survey, performed by public and private athletic field managers and maintenance professionals and non-professionals, generating a wealth of data related to play field surface conditions across the Country. The survey applies a standardized number of events that can be applied to any one playing field per year. For example, one athletic game or one civic event is equal to one (1) play field event, one athletic practice is equal to one-half (0.5) of a play field event. The Survey prescribes that only a limited amount of events per year can be conducted on a given field before the amount of degradation that occurs due to foot traffic requires the field to be taken out of service for the purpose of "field resting". The term "field resting" refers to allowing the playing surface material, typically natural turf, a prescribed period of time to recover and regenerate the "thatch layer" to provide an acceptable playing surface. This study prescribes a minimum "field resting" time of one year, with appropriate turf and soil maintenance, to allow for the regeneration of the "thatch layer" for a playable surface condition.

It is the intent of Dr. Minner and his research with Iowa State University, to generate a more "sport-facility-specific" survey that can be conducted on a national basis. While Dr. Minner's work in this field continues, he was kind enough to share his general findings, at this time, to assist the City of Summit's Master Plan preparation. CME Associates has utilized this survey information and tailored it to the specific needs and demands of Summit to create a reasonable and representative athletic field rating system that can be used to assess the conditions of the City's fields and ultimately determine field needs.

It is important to recognize that the Needs Assessment process is not a precise science. Many divergent factors impact upon such evaluations beyond the available facilities and the number of people who wish to use those facilities. This is particularly true with regard to playing fields, an area of critical concern to Summit. Beyond the obvious concerns of participants, teams, games, practices and available space, the Needs Assessment should consider scheduling limitations, the prospect of inclement weather, field size and other considerations, such as the age and size of the participants, as well as the practical aspect of age-appropriate activity requirements. The Needs Assessment should also consider field maintenance as a critical requirement, including the provision for field rest and restoration.

Surprisingly enough, the quantity of fields needed as identified in the analysis for the two approaches are considerably uniform. Generally, the needs assessment of the Events Driven Approach identifies a higher quantity of ball fields (little league baseball, senior league baseball, softball, etc.) than that of the Iowa State University Approach and conversely the Iowa State University Approach identifies a higher need for Play fields (soccer, football, lacrosse, etc.). When considering the parameters of the two formulas, that is, the Events Driven Approach is generally considered a field "scheduling" and "availability" approach and the Iowa Approach is generally considered a field "condition" and "maintenance" approach, the results are consistent with what one would expect.

After a review of the results and comparing the Events Driven and the Iowa State University Study approaches, one final determination must be implemented to complete the athletic needs portion of this report. That determination is, what approach should be utilized to best reflect the needs of the City of Summit?

Basically there are only two (2) outstanding and driving factors that should be considered when evaluating the recreational demands and the field deficiencies of the City.

a) The currently experienced pressure for additional field demand within the City is related to a reduction in athletic field availability due to restricted playability perpetuated by poor field conditions.

b) The currently experienced pressure for additional field demand within the City is related to a lack of athletic field facilities and an exponential increase in registrants of scholastic and youth sports.

The recommendation of the Joint Committee to improve Washington and Tatlock fields with synthetic surfaces is detailed in the Joint Committee's report. In summary, it was premised upon the following considerations. The City of Summit lacks an adequate inventory of playing fields to meet the requirements and needs of its residents. As a result, fields are constantly in use, preventing them from being taken out of service so that the grass surfaces could "rest" and recover from the excessive use (a fact clearly confirmed by the Master Plan Process). Maintenance of existing facilities is inadequate given the demands imposed upon them. The proposed improvement of Washington Field by enlarging it to regulation size for all sports would increase the City's inventory of

improved with the installation of a synthetic surface. To be renovated with a synthetic surface and for Washington Field to be enlarged and Tatlock fields. The Joint Committee recommended the option that provided for Tatlock a proposal that included three (3) options for the improvement of Washington and field adjacent to Washington School. In November 2003 the Joint Committee announced ("Joint Committee") to evaluate the options for improving Tatlock Field and the playing Committee of the Summit Board of Recreation and the Summit Board of Education Commencing in the fall of 2002, CME Associates worked in conjunction with the Joint

As part of the Master Plan we evaluated several sites within Summit that would be appropriate for the installation of synthetic surfaced playing fields. The issue of synthetic surfaces for fields was first raised in 2002 in the context of the proposal to improve Washington and Tatlock Fields. The review and public discussion of this issue continued in the broader framework of the Master Plan. The use of synthetic surfaces to respond to the heavy demands for and usage of playing fields is plainly one of the most critical elements of the scholastic athletic and youth/recreational sports programs in Summit, now and in the future. As stated in the preceding recommendations, we believe that the installation of synthetic surfaces are warranted, at a minimum, at the following existing locations; Washington Field, Glenside Field and Franklin Field. Concerning all new fields, it is our opinion that a synthetic surface and lighting should be installed, subject to available funding. Especially since we understand that the useful life of these synthetic products are currently being extended by new manufacturing techniques.

There are a number of other organized recreational activities, specifically court related activities, that are currently conducted in the Summit community and do not lend themselves to either of the two methods of analysis previously described in this report. To determine the current and future need for facility improvement and expansion, a less formal calculation was implemented along with significant consideration of discussions conducted with the individual sport groups.

Both issues are equally valid, the lack of field availability, as described, is identified through the application of the Iowa State University Study Approach. The lack of athletic field facilities, as described, is identified through the Events Driven Approach. Since, steps have already been taken to address maintenance issues of the existing fields, the Events Driven Approach is the focus of this Recreation Master Plan.

regulation size fields and, in conjunction with the synthetic surface on Tatlock, provide the City with the capacity to avoid putting fields at risk of damage through game-play in adverse conditions, as well as affording the City the opportunity to "rest" fields or take them out of service for renovation/repair. Of equal importance, the improvement of Washington Field would restore a field that had deteriorated to a hazardous condition through over use.

Following a series of public meetings at which input was received from the Washington School community, residents in the vicinity of Washington School, and the community at large, the Joint Committee issued a report dated April 8, 2004 that recommended that Tatlock Field be renovated with a synthetic surface through the use of a public/private partnership. While announcing that its proposal to enlarge and improve Washington Field with a synthetic surface would be deferred, the Joint Committee also concluded:

"There is an immediate need for a second synthetic surface field in Summit that should be of regulation size for all field sports."

The Joint Committee determined, however, that the location of the second synthetic surface field should be evaluated as part of the Master Plan Process. Specifically, the Joint Committee stated:

"Further action on the second synthetic surface should be deferred pending the forthcoming Recreation Master Plan Process, during which all viable locations for the second field, including Washington Field, may be assessed."

In that regard the Joint Committee further recommended that:

"The location of the second synthetic surface field should take into consideration the feasibility of timely construction, the desirability of adding another field to the City's field inventory, cost and impact on the surrounding area in relation to other locations."

Consistent with the Joint Committee's report, the Board of Recreation proceeded with the renovation of Tatlock Field and in September 2005 the field was re-opened with a synthetic surface and renamed Metro Homes Field in accordance with the terms of the public/private partnership under which the work was funded.

In accordance with the directive of the Joint Committee an element of the Master Plan Process was the evaluation of other sites for the construction of a synthetic field of regulation size for all field sports. A summary of that evaluation is outlined below. An understanding of the evaluation must be preceded by a review of the conditions that existed at the time the Joint Committee's report was issued, as well as events that occurred subsequent to the issuance of the Joint Committee's Report in April, 2004.

After the issuance of the Joint Committee's Report in April 2004 and during the course of the Master Plan Process several events occurred concerning the issue of synthetic fields in Summit.

1. Glenside Fields

In April 2004, it was known that Glenside Fields lacked adequate drainage. The Board of Recreation, which was charged by the City with maintaining the fields, planned to renovate the fields and had budgeted monies to install lateral drains and restore the natural grass surface on the fields. However, in the summer of 2004 the Board of Recreation determined that in addition to the drainage problem at Glenside Fields there also existed subsurface conditions, which was resulting in large rocks and other debris migrating to the surface. Investigation by the City Engineer disclosed when the City constructed the fields the subsurface materials had not been properly screened and extensive remediation of the subsurface conditions would be required, in addition to the already budgeted work to improve the drainage at the fields. Because the estimates for remediating the subsurface conditions approximated the cost of renovating both fields with the installation of synthetic surfaces, the Board of Recreation began to actively pursue the prospect of installing synthetic surfaces at Glenside Fields. Discussions with regard to the funding of the installation of synthetic surfaces at Glenside, as well as the installation of lights on the fields, have been pursued by representatives of the City with the County of Union, from which the City leases the Glenside facility and the State of New Jersey, Green Acres Fund.

As previously noted, the installation of synthetic surfaces on the Glenside Fields and the installation of lights would be very beneficial improvement of the City's existing playing field situation, particularly with regard to the requirements of youth and recreational sports programs. However, because both Glenside Fields are significantly under-sized for regulation scholastic field play, the improvement of the fields would not be responsive to the City's need to increase its inventory of regulation size playing fields suitable for use for all field sports.

2. Transfer Station Property

In the fall 2004, the City reached an agreement with the County of Union under which it would regain control of the Transfer Station property pursuant to a lease agreement with the County of Union. The Transfer Station property was once owned by the City of Summit, which used the property as a landfill for many years. In the 1960's the City transferred title to the property to the County of Union, but retained a limited right of access and use. Thereafter, the transfer station equipment and facilities were constructed with the leaf composting and recycling operations continuing.

In the winter of 2004/2005, a task force was formed by the City of Summit to evaluate the development of the transfer station property for active and passive recreation uses. The site contains an area that would be suitable for the construction of multiple playing

fields, as well as passive recreation activities. Preliminary environmental testing results received in January 2006, indicate that additional site testing must be planned and implemented, as well as a remediation action, which must be planned, approved and implemented. Furthermore, no proposals or recommendations have been issued with regard to how the site would be developed once the environmental issues are addressed. It would be unrealistic to expect that any improvement of the Transfer Station property can happen in the short-term.

3. Wilson Field

When the Joint Committee Report was issued in April 2004 the future of the Wilson school property was unsettled as the lease of the Child Care Center had lapsed and the Board of Education was considering what the retain title to the property. In late 2004 the Board of Education directed it would retain the Wilson School property and return the school facility to active service as a functioning component of the Summit school system.

4. Franklin School Field

In May 2004, Franklin School Field was taken out of service by the Board of Education following injuries to several youth athletes that were attributed to the poor condition of the playing field. As of January 2006, Franklin School Field remains out of service.

SYNTHETIC SURFACE CHARACTERISTICS

The merits of converting natural grass fields to synthetic surfaces was discussed at length by the public during the course of the hearings conducted by the Joint Committee with regard to its Washington/Tatlock proposal. We understand there was further discussion of this subject during the recent public meetings with regard to Franklin Field. Nevertheless, a brief overview of synthetic surfaces is warranted for purposes of this evaluation.

Synthetic surfaces for recreational/athletic uses have been significantly improved since the introduction of the earliest versions of "astroturf" products. The current generation of synthetic field surfaces utilizes synthetic fibers attached to an infill of either inert cryogenic rubber pellets or a combination of inert cryogenic rubber pellets and sand. Unlike "Astroturf" this design replicates the conditions of natural turf, a surface that "gives" under an athlete's foot and provides a "cushion" to players falling to the turf. Another benefit of synthetic surface fields is that they can be used during poor weather conditions. A synthetic field has a specially designed under-drainage system, which allows the field to be used soon after rainfall. This benefit was demonstrated in the weeks after Summit's Metro Homes field was opened in September 2005 when not a moment of practice or game play was missed despite precipitation of historic levels.

A related benefit of synthetic fields is that they require little ongoing maintenance. Essentially, the fields need only be brushed periodically to maintain an even disbursement of the infill material and to remove any foreign debris. This is contrasted with the active regular upkeep that is required to properly maintain natural grass fields, including grass cutting, fertilization, aeration, and field lining.

Another benefit of synthetic surfaces is that they permit continuous ongoing use of the field. A properly maintained natural grass field must be protected from damage due to misuse and overuse. As a result, natural grass fields should not be used when wet conditions exist to the extent that the turf would be damaged by field play. This often means that games and practices must be cancelled in the event of rain and in many cases even in the aftermath of rain. Play on wet natural grass fields results in damage to the turf that requires additional maintenance expenditures to repair and lost field time, as the facility must be taken out of service for the repairs to be made.

On the longer-term basis, a properly maintained natural grass field should also be removed from service periodically to permit the turf to recover and rejuvenate. Further, even with the best of maintenance, a natural grass field that sees active regular use must periodically be resodded, either substantially or entirely, every three (3) to four (4) years. For example, even though it did not see extensive regular use, a substantial portion of the natural grass surface on Tatlock Field was resodded at least twice during the five (5) years before the installation of the synthetic surface last year. In addition to the out-of-pocket expense of resodding a natural grass field, is the intangible "cost" of the field being lost to service during the four (4) to six (6) months that would be required for the resodding work to be performed and for the sod as installed to "knit" or bond to the field surface.

Even though the new generation of synthetic fields has been in use for approximately ten (10) years, there is no statistical evidence to indicate that they pose any greater hazard to users than natural grass surfaces. Certainly, there is no statistical evidence that they in fact are more hazardous than natural grass facilities. One concern that has been raised with regard to synthetic surfaces is that they tend to retain heat. This has proved to be problematic in warmer climates, particularly in the south and southwestern United States. In those applications, however, the issue has been readily addressed through the use of cooling water sprays or jets that are periodically activated when the fields are in use.

For these reasons, recent years have seen an exponential increase in the installation of synthetic fields by municipalities, as well as colleges and professional athletic facilities. Many of these installations are the product of the same needs, requirements and problems that now exist in the City of Summit, namely excess field demand, limited field inventory, and budgetary constraints that limit the capacity to properly maintain natural grass fields.

SITE EVALUATION CRITERIA

The Joint Committee's Field Development Philosophy:

In assessing what sites in Summit might be appropriate for the installation of synthetic surfaces, we have reviewed the field development philosophy that was announced by the Board of Education and Board of Recreation in the Joint Committee's Report with regard to the improvement and development of playing fields in Summit. Specifically, the Boards of Education and Recreation agreed that it would be in the best interests of the City and its residents that the following principles guide the assessment and decisions with regard to field improvements:

a. Develop fields with the highest and best use in mind.

Building a field of regulation dimensions produces a facility that can be used for game play and "full field" practices as may be required or appropriate by age and skill level. Further, while younger athletes may not require full dimension facilities, a full-sized field can be shared by two youth teams for practices. Such capacity affords significant utility in the scheduling and maintenance, i.e., consolidating two practices at a single site will permit up to two natural turf fields that would otherwise be used for those practices to be taken out of service for rehabilitation or rest.

b. Develop fields that are properly sized.

In making the significant capital investment required to improve a field with synthetic turf, the field should be of a size to safely accommodate all field sports played in Summit. Additionally, fields must be built with suitable perimeter buffers or run-off areas to permit athletes running or being forced from the playing field with an unobstructed area of consistent surface materials to permit players to safely decelerate.

c. Do not make economic compromises at the expense of field design, function or quality.

Based upon past experiences of the City in developing playing fields, the Joint Committee's philosophy was that if Summit was unwilling to spend the money to build a field properly, the field should not be built.

Applying the Joint Committee's Field Development Philosophy, the following factors were also considered:

Site Availability

In April 2004 the Joint Committee concluded that even assuming Tatlock (now Metro Homes) field received a synthetic surface, there was "an immediate need for a second synthetic surface field in Summit that should be of regulation size for all field sports."

Now, almost two years later, the conditions creating that "immediate need" have worsened significantly. Franklin Field, which was in operation in 2004, is now out of service. Washington Field has not been renovated and has deteriorated. We are informed that due to its poor condition some youth lacrosse teams from other towns refuse to play Summit teams on Washington Field. Finally, while Glenside Fields remain playable, the chronic drainage problems and subsurface conditions require additional maintenance and limit field access.

There must be an immediate response to the condition of these fields because the need to shift the usage from these fields to other locations will overload the other usable fields in Summit and degrade them exponentially. This compressed usage of a limited number of fields will inevitably create a domino effect of fields successively lost to use due to degraded conditions resulting from over use and the inability to properly maintain them.

For these reasons, the prospect of constructing additional fields at the Transfer Station property is not a viable response option to the field crisis that now exists in Summit. In 2004 the Joint Committee indicated the "immediate" need for a second regulation size synthetic field. The recent results of the environmental testing at the Transfer Station property will require additional testing, planning and remedial action.

Accordingly, the evaluation of a location for a second regulation size synthetic field is necessarily limited to existing fields in Summit. While the Transfer Station presents great potential for long-term opportunities for Summit's residents, it does not offer any immediate or short-term options for addressing the City's playing field needs.

Size of the Field

The directive of the Joint Committee was to evaluate all possible sites in Summit with regard to the prospect of installing a second synthetic surface field "of regulation size for all sports." Emphasis was placed on this requirement accordingly. As noted, however, developments occurring subsequent to the issuance of the Joint Committee's Report present needs/opportunities for the installation of synthetic surface fields in settings at locations that are not of regulation dimension (e.g., Franklin Field and Glenside Fields).

Condition of the Field

In evaluating sites in Summit for the installation of synthetic surfaces, consideration of the existing field conditions was required. This is an obvious practical and economic concern. While the City has the need to address its pressing playing field crisis, it also has the need to be fiscally responsible. This means that public funds should be allocated

As noted above, Summit has a number of facilities, which there are multi-purpose fields that overlap existing clay infields of baseball fields also at the same location. This overlapping usage is not recommended for the installation of synthetic surfaces as the inconsistent field surface presents a potential hazard to players transitioning from the turf

Use of the Field

In contrast, the upper and lower High School fields were substantially renovated in 2001 with the installation of drainage and irrigation systems, with additional investments in lower Memorial Fields, which were rebuilt by the City in 2000-2001. Further, while the natural grass surface on both the High School and Memorial Fields might be improved, both fields are in good condition and are capable of sustaining regular active use for the foreseeable future. The installation of a synthetic surface at the High School fields would require the irrigation and drainage systems be removed, as they are incompatible with the installation of a synthetic surface. As a result, the installation of a synthetic surface at either of the High School fields would result in the renovation of a field that is already in good condition and would require the abandonment of several hundred thousand dollars in capital improvements invested in the fields in 2001. Similar reasoning applies with regard to the Memorial Fields, which were renovated with drainage and irrigation in 2001 at a cost of over \$600,000.

Applying these concerns, we note that the fields at three sites in Summit are in a serious state of disrepair. Franklin Field has deteriorated to the point that it is now out of service; Washington Field is grossly deteriorated and Glenside Fields are in marginal, but playable condition. Neither Franklin nor Washington have irrigation or drainage systems. While Glenside has irrigation and a limited drainage system, as noted previously, subsurface conditions mandate the removal of those systems for the proper renovation of the field.

Logic and reason dictate that given the limited number of fields in Summit's inventory, its tax dollars should be invested in the long-term repairs of those fields that are now out of service or seriously degraded. Simply stated, it makes no practical sense to install synthetic surface on a field that is in active use while ignoring a field that is out of service.

Of concern here is the fact that several natural grass fields in Summit (High School fields and Memorial Fields) have been recently improved with the installation of irrigation and drainage facilities. Because these improvements cannot be adapted to be used for synthetic surfaces, they would have to be removed to install a synthetic surface. As a result, the hundreds of thousands of taxpayer dollars invested in the improvements will be lost if synthetic surfaces are installed on them. Additionally, given that the playing fields at these locations are in active use while other fields are out of service or in gross disrepair, responsible fiscal and practical concerns dictate that they not be deemed priority candidates for the installation of synthetic surfaces.

portion of the field to the clay infield, and vice versa. This overlapping use also presents an increased maintenance problem by virtue of clay being tracked into the synthetic surface and potentially obstructing the proper drainage elements. Further, because a synthetic surface may be used during wet weather, use of the multi-purpose field may cause damage to the clay infield that would require the infield be taken out of service for repair and necessarily the expenditure of additional maintenance costs.

An additional consideration with regard to competing field uses is that the benefit of an artificial surface field is not fully realized. For example, the installation of synthetic turf on a multi-purpose field that also serves as the outfield for a baseball diamond limits the utility of that field for use during the spring. Specifically, the Memorial Field and Wilson Field are dedicated to senior baseball in the spring. Consequently, installation of synthetic surfaces in the outfield portion of those fields would significantly limit access to those fields for use by lacrosse and spring soccer, as the site would necessarily be dedicated first to baseball use.

SITE EVALUATIONS

Applying the Joint Committee's Field Development Philosophy and the other evaluation criteria we have reached the following conclusions and recommendations with regard to the installation of synthetic surface fields.

The following locations did not meet the threshold requirement of having the necessary space, either existent or following re-configuration, to accommodate a field of regulation dimensions: Recreation Center, Lincoln-Hubbard School, and Lawton C. Johnson Middle School.

Also excluded from consideration in this analysis are the Glenside fields. While active efforts are underway to secure the funding to install synthetic surfaces on both fields, the sources for those funds will be either the County of Union or the State of New Jersey's Green Acre Funds.

As noted previously, both of the fields now located at Glenside are significantly undersized. Further, topographical conditions foreclose the prospect of enlarging the existing fields. While the City is presently pressing initiatives to install synthetic surfaces on both fields, and to install lights on the fields, the success of those initiatives will not add a new field to the City's field inventory. Further, while the proposed improvement of Glenside fields will be of benefit to the youth and recreation leagues that presently use them, it will have no benefit to the scholastic athletic programs. Because of their limited size, the fields are not suitable for game play. Additionally, the detached location of the fields raises problems as to the ability of scholastic athletes to travel to the site after school to attend practices.

Franklin School Field

A synthetic surface should be installed on Franklin School Field for the following reasons.

- a. Franklin Field is currently out of service due to its deteriorated condition and must undergo a complete renovation.
- b. Because Franklin Field does not presently have irrigation or drainage systems, the value of such improvements will not be lost if a synthetic surface is installed.
- c. Because Franklin Field does not have irrigation or drainage systems, such systems should be installed if the field is renovated with a natural grass surface. Significantly, the estimated cost of a synthetic surface field at Franklin is more than the cost of a natural grass field with the required drainage and irrigation systems, however, this incremental cost is well worth the investment as it will provide the City and its residents with a much higher degree of usage and utility, while sparing the City additional significant annual expenditures for regular field maintenance and periodic restoration work.

- d. Franklin Field is an important component in Summit's field inventory as a venue for both scholastic and youth/recreation sports programs. Due to the Board of Education's lack of playing fields to support its scholastic athletic programs, for decades the Board of Education has had to use fields adjacent to elementary schools (Franklin and Washington) for practice and game play venues for varsity and sub-varsity sports. Thus, for many years Franklin Field has had to function as both a play area for Franklin School students and a playing field for Summit High School athletes. In the fall, Franklin is the site of High School soccer practices and games, as well as recreation and youth soccer. In the spring, Franklin Field is used by High School girls' lacrosse, as well as boys and girls youth lacrosse and youth spring soccer. As noted above, there exist no viable options to relieve the level of usage Franklin Field sees each season. The heavy use that Franklin Field regularly experiences clearly warrants the installation of a synthetic surface field.
- e. Because there are no other fields available to reduce or limit the use of Franklin Field, there is no immediate or near term prospect of shifting any field usage from Franklin to another site without significantly impacting the physical condition of that second site. Thus, because of its heavy usage and the City's inability to disperse that usage to other sites, the renovation of Franklin Field should include the installation of a synthetic surface.

First, the Upper Memorial Field area was extensively renovated with the installation of drainage and irrigation in 2001 at an approximate cost to the City of \$600,000. Those improvements would have to be removed, and the value of the City's investment would be lost if a synthetic surface was installed.

While of a size that might accommodate a synthetic surface field of regulation dimension, the multipurpose field situated at the southern end of the Upper Memorial Field area is not a suitable location for such a field for various reasons.

Memorial Field

As set forth in the recommendation, Wilson School field can be reconfigured to accommodate a multi-purpose field of regulation dimensions suitable for the installation of a synthetic surface. It must be noted, however, that also present at the site is a baseball diamond that is the primary venue for the high school junior varsity team. The daily use of the baseball field in the spring would significantly limit the use of a synthetic surfaced multi-purpose field in the spring for lacrosse and spring soccer. Additionally, it should be noted that the multi-purpose field presently existing at Wilson School is in good condition, and does not need require remediation or renovation.

Wilson School Field

If a synthetic field is installed at Franklin Field consideration should be given to whether to proceed with the recommendations set forth in the Master Plan to rehabilitate the existing baseball diamond presently on the site. The existing baseball field is in disrepair and is not actively used for organized play. While its restoration would add another small sized baseball field to the City's inventory, it must be understood that the active scheduled use of that baseball field for regular league play would conflict with the usual use of the field in the spring for boys and girls lacrosse and for spring soccer.

g. Franklin Field will accommodate the construction of a multipurpose field with adequate buffers. Further, there is space beyond the buffers on the school side of the field that would permit the installation of a limited set of bleachers for spectators seating, if desired.

f. The installation of a synthetic surface field at Franklin School Field would not materially increase the use of the field. Before it was removed from service, Franklin Field was already used every day after school in the fall and spring for scholastic athletic practice. Subject to available sunlight, youth/recreational leagues for practice and game play then used the field. The field was also scheduled and used at all weekend hours year-round, except Sunday mornings.

2001 Improvements: As previously noted, the upper and lower high school fields were improved in 2001 by the installation of irrigation and drainage systems. With additional drainage work performed after 2001, the City of Summit has invested hundreds of thousands of dollars in improvements to the Upper and Lower Fields over the last five (5) years. These improvements would have to be removed if a synthetic surface was

The assessment that neither the upper nor lower field was suitable for expansion and/or the installation of synthetic turf was addressed in the Joint Committee's Report issued in April 2004. Then and now, an objective assessment of the High School fields demonstrates that neither site is suitable for a synthetic surface based upon the facts presented. In summary, the following are noted:

The Joint Field Committee addressed the prospect of expanding and improving the multipurpose fields at the high school at length.

Summit High School Fields

The installation of fencing at the northern end of Upper Memorial Field would adversely impact the City's ability to use the northern end of Upper Memorial as a multipurpose field in the fall (when baseball is not in season). The proposed expansion of the southern field assumes the ability to share the space between its northern sideline and the southern sideline of the northern multipurpose field as a safety buffer, which the installation of a fence would prevent. The installation of a fence would also impact the use of the baseball field on the northern end of Upper Memorial Field, as it would impair the outfield dimensions.

Notably, there is no fencing of any form at Memorial Field. The installation of a fence around a synthetic field would disrupt the continuous flow of the Upper Memorial Fields into the Lower Memorial Fields, and be problematic for functions that benefit from the uninterrupted area of the green space (for example, the spectator area for the fireworks display).

The Memorial Field area is a true park. The area in question is part of the largest single green space in the City, in essence, Summit's "Great Lawn," and serves as the site of various local and community-wide functions, including annual fireworks display. The installation of a synthetic field at Upper Memorial Field would necessarily require fencing to protect other field users, people and vehicles on the perimeter roadways from the hazards of injury from balls leaving the playing field, particularly field hockey balls and boys and girls lacrosse balls, which can travel great distances at high speeds. Currently Memorial Field is not used for field hockey at any level or for lacrosse scholastic or youth, boy or girl, above the sixth grade level.

The multipurpose field is presently in good condition and sees regular active use by scholastic and youth/recreation soccer in the fall, and by youth/recreation lacrosse and spring soccer for Summit Soccer in the spring.

We have determined that the only viable location for locating the baseball field at Washington School would place home plate at the Butler Avenue end of the existing open space adjacent to the school, with center field extending to the existing playground area. Plotting the field in that configuration, we were unable to configure a baseball field

feet of unobstructed area immediately adjacent to the right and left field foul lines. also provide for a distance of 60 feet between the home plate and backstop, as well as 60 center field. National Federation of State High School Association (NFHS) Standards high school baseball field are 300 feet for the right and left field lines and 350 feet to field 300 feet; left field 287 feet; and center field 330 feet. Regulation dimensions for a recent school expansion. The existing baseball field has the following dimensions: right the encroachment of the high school building into the playing area as a result of the existing field at the high school is presently under-sized due to the limitations imposed by that the only possible place for such relocation was the Washington School area. The upper high school field to some other site in Summit. Upon review, it was determined considered whether it would be possible to relocate the baseball field presently at the In conjunction with the reassessment of the upper high school site, CME Associates also

to the effect of sun glare upon athletes using the field. orientation, which is not recommended under standard field construction guidelines due property, the most viable alignment of the field placed it on a substantial east - west access to the lower high school field. Additionally, due to the configuration of the neighboring houses. The configuration of the field would also significantly impair any of the retaining walls would be on the border of the property immediately adjacent to of the property. In many places the retaining walls would be topped with fences. Some retaining walls, some projected to be at least eight feet high, around a substantial portion location, it would not be possible to do so without the construction of significant while it would be possible to physically site the second field at the upper high school to accommodate a regulation size field. From that evaluation it was determined that determine whether it might even be feasible to enlarge the Upper High School field so as The Joint Committee also undertook a review of the upper high school field area to

as an alternate practice or game field for boys and girls lacrosse. scholastic baseball and lacrosse (boys and girls) effectively prevent the field from serving field necessarily limits access and use in the spring when scheduling conflicts between be used, but the clay infield should not be used. Further, the presence of the baseball the clay infield, particularly when wet conditions exist in which the synthetic surface can athletes and will pose an ongoing maintenance problem for both the synthetic surface and inconsistent field surfaces (synthetic grass and infield clay) that may be hazardous to Installing a synthetic surface on such a configuration is problematic since it would create In its present configuration the multipurpose field and the baseball field overlap.

A. Upper High School Field

installed, as they would be incompatible with any synthetic field system installed. The value, and cost, of the recent improvements to the fields would therefore be lost.

at Washington School in a manner that would accommodate even the presently undersized baseball field now existing at the upper high school location. Even reducing the 60-foot recommended distances between home plate and the backstop and clear areas along the right and left field foul lines, the replication of the existing baseball field would extend the right field and center field dimensions into the Metro Homes Field parking lot and playground area respectively. The construction of a baseball field with regulation dimensions along both foul lines and center field would extend significantly into the Metro Homes Field parking lot and into the playground area. It was further determined that significant fencing and retaining walls would be required in order to construct a baseball field at Washington School Field area. Also of concern were the limited ability to protect spectators and passers by, as well as property and the school building itself along the left field line of the proposed field from foul balls.

B. Lower High School Field

The lower field is of limited width. This limitation renders it unsuitable for conversion to a synthetic surface for several reasons. While it can accommodate a 180-foot wide field (regulation for girls' lacrosse and field hockey), it is restricted by fence lines, property boundaries and topography. There is inadequate area outside the field sidelines to accommodate the required buffers. Due to the limited area along the sidelines, bleachers and other spectator facilities could not be installed.

Spectator seating would have to be located at the end lines. Due to the existing baseball infield, at the west end of the field the spectator seating would have to be located on the slope that separates the upper and lower fields. Because there is neither parking nor public access at the Morris Avenue end of the field, spectator seating would be problematic due to the distance from the high school parking lot. Naturally, seating at the end lines would not be ideal for spectators and would require fencing to protect spectators from missed shots on goal. This limited configuration would not be suitable for game play at the lower High School field.

Washington Field

The recommended proposal of the Joint Committee first advanced in November 2003 provided for Washington Field to be expanded to regulation size and receive a synthetic surface. Consistent with the direction of the Joint Committee, CMB as part of the Master Plan Process has assessed other locations in Summit to determine whether there are any other sites, which might be suitable to respond to the Joint Committee's conclusion that there is "an immediate need ... for a second synthetic surface field in Summit that should be of regulation size for all field sports".

For over 25 years, Washington Field, which is immediately adjacent to Washington School, has served as the primary practice field for the scholastic football and boys' lacrosse teams. Washington Field has also served as the home field for sub-varsity boys' lacrosse games. This usage is a logical extension of the need for both programs to use the adjacent Anderson Field House.

Washington Field also sees heavy use by elementary and middle school children in the youth football and youth lacrosse programs, which take the field during the week after the scholastic usage concluded. Access to Washington Field is particularly critical to the youth football program because it has a limited amount of lighting that permits practices to continue in the dark early evenings during daylight savings time in the fall.

Over the past two decades, every fall (mid-August to late November) scholastic football has used Washington Field for practice between 3:30 and 5:30 p.m. After 5:30 p.m. Washington Field is used by youth football (Grades 4 to 8), which uses the limited lighting available at the field. The scholastic and youth football teams have also used Washington Field on Saturday mornings from 8 a.m. until early afternoon, and occasionally on Sundays.

In the spring (March through June), Washington Field is used by scholastic lacrosse on weekday afternoons from 3:30 to 5:30 p.m. Commencing at 5:30 p.m., the youth lacrosse (Grades 4 to 8) uses the field until dark. The field is used throughout Saturdays and Sundays by both scholastic and youth lacrosse teams.

The Washington School parking lot has 43 separate spaces and a gated adjoining macadam area that accommodates approximately 50-60 cars. The macadam area is opened before the 3:00 p.m. dismissal and is used both for school pick-up traffic flow and for after school parking. The congestion associated with the afternoon dismissal is dissipated by 3:30 p.m. The macadam lot is available and is used by individuals attending or watching athletic events on Washington Field that typically commence during the week at 3:30 p.m. Teachers and staff who remain at the school for various reasons until 4:00 p.m. usually occupy the separate spaces in the other parking section. It should also be noted, however, some individuals attending or watching events at Washington park in the Metro Homes Field parking lot.

On weekends, both the Washington Field and Metro Homes Field parking lots are open for use by individuals attending or watching athletic events at Washington Field and/or Metro Homes Field.

Factors That Recommend Expansion of Washington Field to Regulation Size and the Installation of a Synthetic Surface:

For twenty-five (25) years Washington Field has been used for scholastic and youth football practices every week day afternoon and evening in the fall and on weekends. Over the same period boy's lacrosse programs, scholastic and youth have used Washington Field each spring weekday afternoon and evening for practices and on Saturday and Sunday. Washington Field has also been used as the site for sub-varsity scholastic lacrosse games and youth lacrosse games. The scholastic and youth football programs and scholastic lacrosse program that now uses Washington Field for practice and Metro Homes Field for games also requires access to the adjacent Anderson Field by House. There is no indication that the current primary use of Washington Field by football in the fall and lacrosse in the spring will change in the foreseeable future. Of all field sports played in Summit, football and lacrosse have the greatest impact, and inflict

the most damage, on natural turf surfaces. This is due to two basic reasons: (a) the flow of play in both sports in which large and small groups of opposing players physically challenge each other repeatedly in the same areas; and (b) practice and game play are expected to continue in virtually all forms of adverse weather and field conditions.

Largely due to its use by football and lacrosse, Washington Field has deteriorated to the point that it requires major renovation. In the past two years, game play by scholastic and youth teams on Washington Field has been suspended due to the poor condition of the field. Additionally, some neighboring towns have refused to play Summit teams on Washington Field because they viewed it to be in hazardous condition. The renovation of Washington Field with natural turf would require that it be removed from service for approximately one year. Because the sub-surface soil is being disturbed, approximately 12 months are required for the soil to settle and the sod to fully knit, or for seed to fully develop, before the field can be returned to service. If natural turf is replaced on Washington Field, it will not withstand the heavy impact of football and lacrosse usage and will require major repair or replacement on an ongoing basis. While it would be possible to resod the field, that process would require the field to be taken out of service for repairs to be affected. More important, a resodded field cannot be used immediately. The new sod must "knit" or bond to the surface soil. This process requires approximately 10-12 weeks and is best undertaken in the growing seasons, spring and fall. Maintaining the field in good condition would likely require the field be resodded approximately every 24 months. Thus, a program for natural turf repair for Washington Field would displace either football (Fall) or lacrosse (Spring) from the field for their entire season every 18-24 months. Moving either of those two programs to an alternate venue will displace another sport from its regular field, and result in increased damage to that field coordinate with the high impact use of either football or lacrosse, particularly during wet weather conditions.

With its improvement, Metro Homes field will be available for practice use by the scholastic football and boy's lacrosse programs, it is to be expected that those teams would still have to continue to practice occasionally on Washington Field as they will be displaced from Metro Homes by other sports when adverse weather or field conditions make it ill-advised to play games (or in some cases, practice) on the natural turf fields normally used by those sports. Further, because of the limited natural light available during daylight savings time in the fall, the youth football program must practice on Washington Field because it is the only field that has lights. Thus, even with the synthetic surface on Metro Homes Field, Washington Field is assured to see continued use by football and lacrosse, thus continuing the cycle of damage to any natural turf surface on the field. Simply stated, the installation of natural grass on Washington Field is incompatible with the use by football and lacrosse, even if that use was reduced by the installation of a synthetic surface on Metro Homes Field. The use by football and lacrosse will damage the field to the point where it is today, i.e., a condition in which it cannot be used by any other sport. This concern is validated by the experience of several years ago when the use of natural grass at the former Tatlock Field by scholastic and youth football playing several games during inclement weather conditions in mid-

November heavily damaged the turf, jeopardizing the availability of the field to lacrosse the following spring.

In its present configuration Washington Field is undersized for game play by all field sports played in Summit. Because Washington Field is undersized, and in such poor condition, due to its use by football and boy's lacrosse, Washington Field is not used by any other sports on a regular basis. The expansion of Washington Field to regulation size would add another field to the City's inventory of fields. The proposed improvement of Washington Field would permit its use by sports other than football and lacrosse, which for years have been the only sports capable of using the field due to its poor condition. A regulation size field with a synthetic surface at Washington will open the field for use by girls sports, field hockey, soccer and girl's lacrosse, as well as other boy's programs, i.e., soccer and baseball (pre-season practices/drills).

The issue of synthetic turf is controversial in many communities for various reasons. In an ideal world, every community would have an adequate inventory of playing fields to support its scholastic athletic programs, as well as its youth/recreational sports programs. In such a world, there would be enough fields so that there would be no need to use elementary school fields for scholastic and youth sports activities. In such a world, there would be enough playing fields to permit fields to be rotated out of service so that they can be "rested," allowing their natural grass surfaces to recover and rejuvenate.

Like all other "fully developed communities," Summit must deal with the limited number of playing fields in its inventory and the restricted options that flow from that limitation. Despite any preference that some may have for natural grass surfaces, the realities that now exist in Summit necessarily require the City to increasingly rely upon synthetic surface fields in order to respond to the demand for athletic and recreational venues that are safe for the children of Summit to use. Several fields in Summit have deteriorated to the point that they are hazards. The inability to use those fields puts increasing stress upon the remaining inventory of fields. If immediate remedial action is not taken, the remaining usable fields will quickly deteriorate due to overuse and the City's ability to meet even the minimal playing field requirements of its residents will collapse.

The recommendation to enlarge Washington Field and install a synthetic surface is consistent with the directive of the Board of Education and Board of Recreation's Joint Committee. Based upon a thorough and complete review of all available sites, Washington Field is the most appropriate location for the second regulation size multipurpose synthetic field that the City clearly requires.

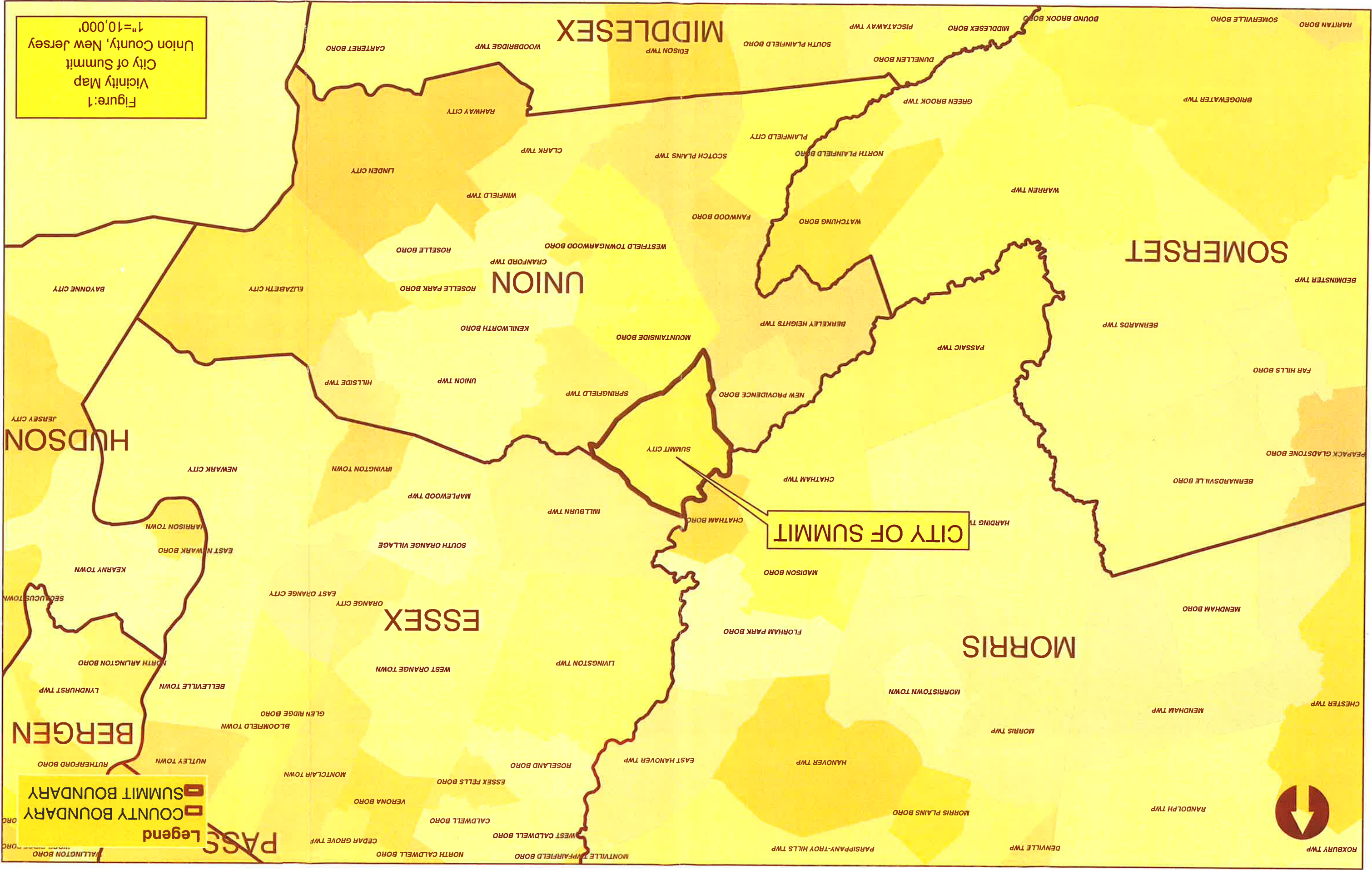
The recommendations that Glenside Fields and Franklin Field be renovated with synthetic surfaces are products of necessity borne out of the critical circumstances that now exist in Summit with regard to playing fields. These recommendations are advanced because they are consistent with the established use of the fields and, as important, with the Field Development Philosophy established by the Board of Education and Board of Recreation. The recommendations to install synthetic surfaces at Franklin and Glenside present the best opportunities for the City to make capital improvements that will

enhance its field inventory by maintaining its stock of usable fields, and provide long-term solutions to chronic problems at both facilities.

The Summit Board of Recreation and Summit Board of Education has taken every step to ensure that the issues and items of concern identified in this Recreation Master Plan appropriately reflect the sentiment and concerns of the City's resident population. These Boards have conducted six (6) special public meetings, in open forum and have dedicated countless volunteer hours in an effort to adequately assess the recreational needs of the Summit community. The public meetings were appropriately advertised in local newspapers and posted on the public information kiosk at the Summit Recreational Center as well as the Recreation departments web page.

The public meeting discussions were reviewed and incorporated in the Recreation Master Plan process and further reflected in the proposed "Conceptual Plan and Cost Estimates" discussed in this report. While the issues discussed were numerous, it is important to acknowledge and publicly identify the Summit resident sentiment in this plan to ensure and make record of their concerns for future recreational facility construction and expansion of existing recreational facilities.

The "Recreational Needs" analysis shows that the City requires a significant quantity of additional athletic fields and additional passive recreational amenities that must be considered over the next ten (10) years.



Legend
COUNTY BOUNDARY
SUMMIT BOUNDARY

Figure: 1
City of Summit
Vicinity Map
1"=10,000'

CITY OF SUMMIT

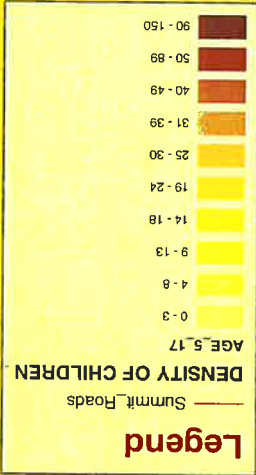
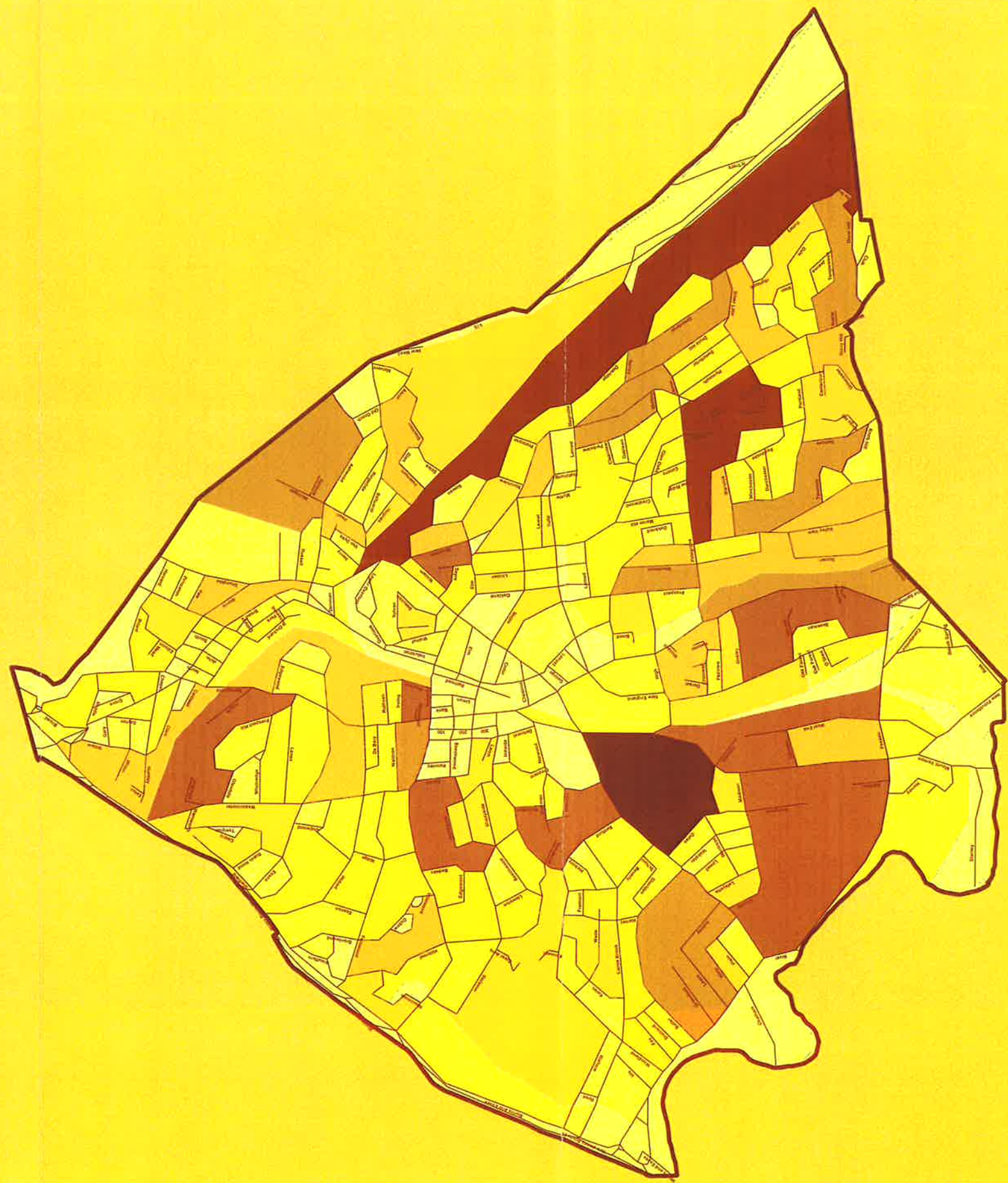
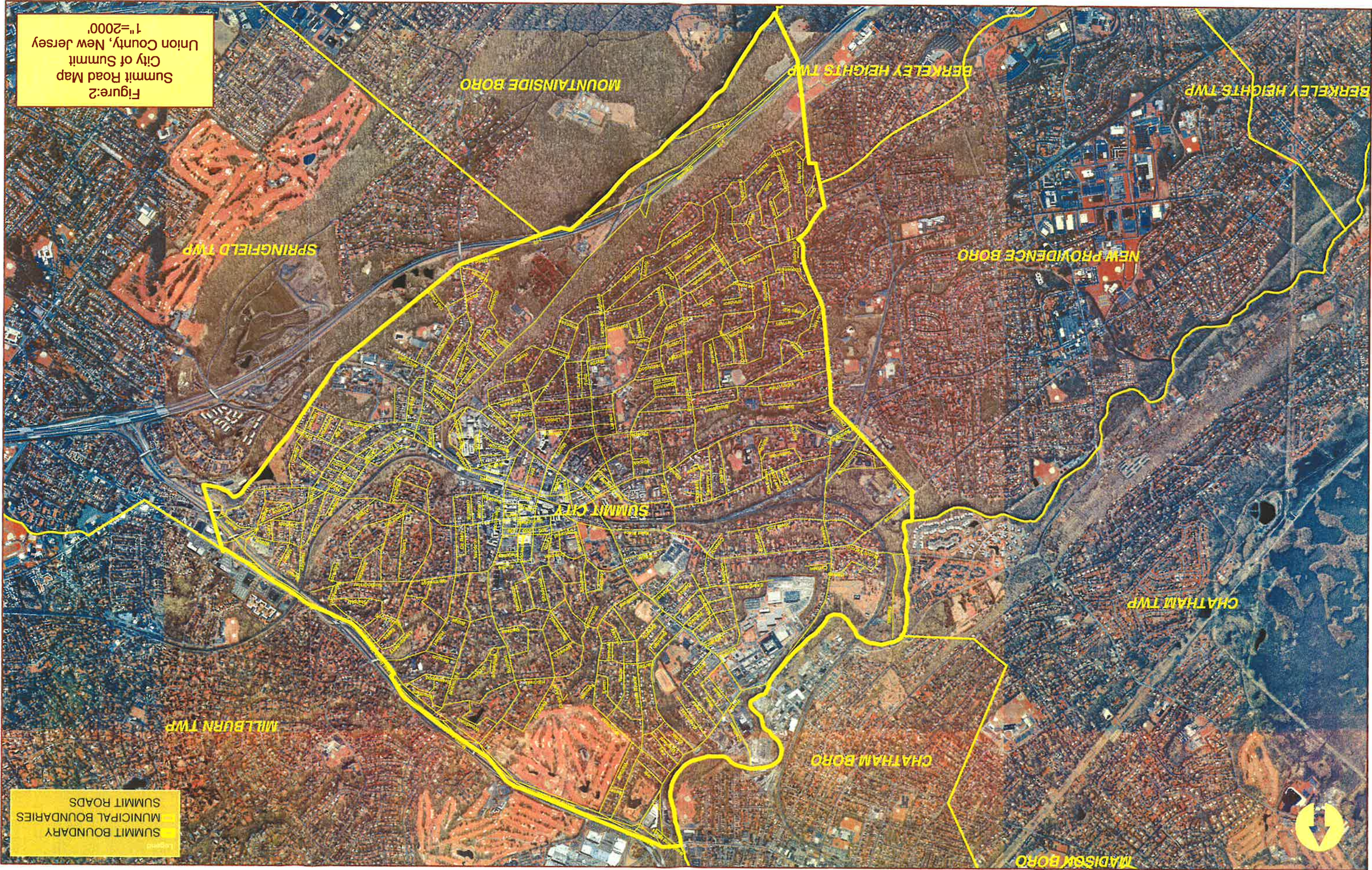
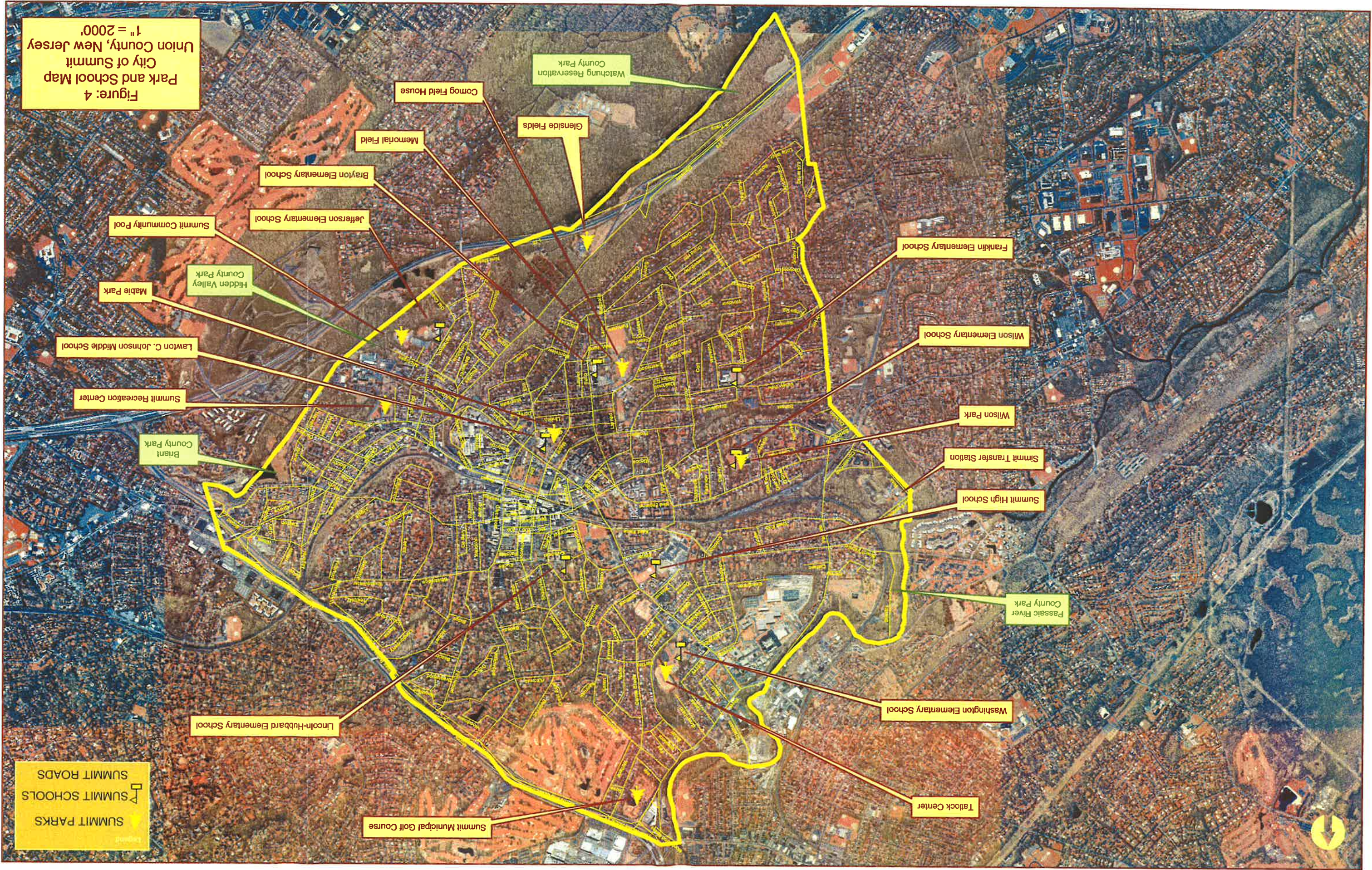


Figure:3
Density of Children
(Age 5-17)
City of Summit
Union County, New Jersey
1"=2000'





PRELIMINARY NEEDS ANALYSIS, EVENTS DRIVEN APPROACH

	FALL	SUMMER	SPRING
Recreational Activity			Summit Softball/Men's Fast/Slow Pitch
			Summit Jr. Softball Girls
			MS Softball Girls
			HS Softball Girls
			Summit Jr. Baseball
			T-Ball Summit
			Baseball HS
			Summit Soccer Club U11 and Over (full-size)
			Under U11 (short-sided)
			YMCA Soccer U11 and Over (full-size)
			Under U11 (short-sided)
			Summit Boys Lacrosse
			Summit Girls Lacrosse
			HS Boys Lacrosse
			HS Girls Lacrosse
		Summit Jr. Baseball	
		Legion Sr./Jr. Baseball	
Recreation Soccer	HS Boys Soccer		
HS Girls Soccer			
Summit Youth Football			
HS Football			
HS Field Hockey			
MS Field Hockey			
Jr. Fall Baseball			

[illegible][illegible]

3	3	0	1	8	11	0	1	3	2	1	0	3	5	2	1	0	0	0	0	0	0	0	0	0	0	0	0	1	
TOTALS																													

PRELIMINARY NEEDS ANALYSIS, IOWA STATE UNIVERSITY STUDY APPROACH

Recreational Activity	S P R I N G														S U M M E R		F A L L								
	Summit Softball/Men's Fast/Slow Pitch	Summit Jr. Softball	Girls MS Softball	HS Softball	Girls Summit Jr. Baseball	Summit T-Ball	HS Baseball	Summit Baseball	Soccer Club U11 and Over (full-size)	Under U11 (short-sided)	YMCA Soccer U11 and Over (full-size)	Under U11 (short-sided)	Summit Boys Lacrosse	Summit Girls Lacrosse	HS Boys Lacrosse	HS Girls Lacrosse	Summit Jr. Baseball	Legion Sr./Jr. Baseball	Recreation Soccer	HS Boys Soccer	HS Girls Soccer	Summit Youth Football	HS Football	HS Field Hockey	MS Field Hockey

CURRENT LEAGUE	CURRENT CENSUS	SHORT TERM LEAGUE	SHORT TERM CENSUS	LONG TERM LEAGUE	LONG TERM CENSUS	0	0	2	0	1	1	4	5	5	3	6	3	5	3	4	3	2	2	1	1	1	0	0
						0	0	2	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0

DATA COMPARISON

Figure 6

RESULTS		CURRENT	SHORT TERM	LONG TERM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
					0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

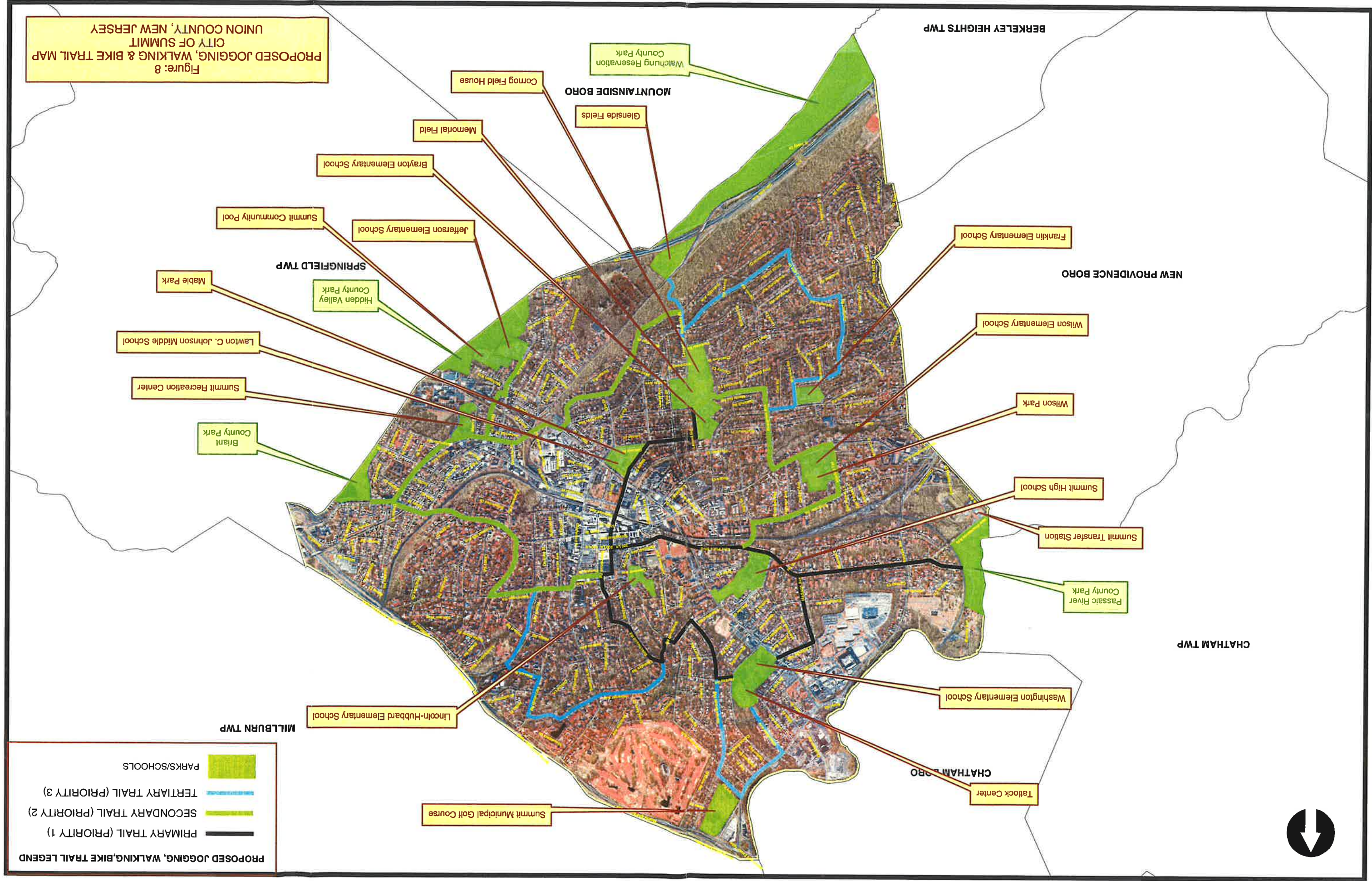
TOTALS		1	2	0	0	1	6	6	5	9	4	6	4	2	1	1	1	0	0	0	0	0	0	0	0	0	0	1
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PRELIMINARY

SPRING														SUMMER		FALL									
Recreational Activity	Summertime Softball/Women's Fast/Slow Pitch	Summit Jr. Softball Girls	MS Softball Girls	HS Softball Girls	Summit Jr. Baseball	Baseball	Summit T-Ball	HS Baseball	Summit Soccer Club U11 and Over (full-size)	Under U11 (short-sided)	Summit Boys Lacrosse	Summit Girls Lacrosse	HS Boys Lacrosse	HS Girls Lacrosse	Summit Jr. Baseball	Baseball	Legion Sr./Jr. Baseball	Recreation Soccer	HS Boys Soccer	HS Girls Soccer	Summit Youth Football	HS Football	HS Field Hockey	MS Field Hockey	Jr. Fall Baseball

[illegible][illegible]

TOTALS		3	3	0	1	8	11	0	1	2	6	2	2	1	0	1	1	0	0	0	0	0	0	0	0	1
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Appendix A

LEVEL OF SERVICE FORMULA

STEP 1: Summit Park Classification

Types of Parks:		List:
<u>Mini-Parks</u>	Mabie	Glenside Fld.
<u>School Park</u>	Jefferson	Franklin
<u>Athletic</u>	Memorial Fld.	Tatlock Fld.
<u>Special Use</u>	Cornog Fldhse.	Rec. Center
		Lincoln
		Washington
		Brayton
		Wilson
		High School
		Middle School

STEP 2: Summit Recreation Activity Menus

Activity	Mini	School	Athletic	Special Use
Tot Lot	2	6	n/a	n/a
Picnic	n/a	n/a	1	1
Outdoor Basketball	2	3	1	3
Outdoor Tennis	n/a	6	4	6
Paddle Courts	n/a	2	n/a	n/a
Swimming Pool	n/a	n/a	n/a	Community
<u>Athletic Fields</u>	Mini	School	Athletic	Special Use
Little League Base	n/a	1	n/a	1
Softball	n/a	2	2	n/a
Senior Baseball	n/a	n/a	1	n/a
Baseball (General)	n/a	5	n/a	n/a
Soccer	2	3	2	n/a
Football	n/a	n/a	1	n/a
Multi-Purpose Field	n/a	4	1	n/a
Walking/Jogging	n/a	¼ mi.	¼ mi. (2)	n/a

(122 Days of Precipitation per year, 90 days of Cold Weather, 215 Days of Availability per year)

STEP 3: Summit Park Size Standards

Park Classification	Minimum Size
Mini-Parks	1 acre
School Parks	3 acres
Athletic Fields	15 acres
Special Use Parks	6.5 acres

STEP 4: Present Supply

Baseball/Softball Field, (Spring)	Expected Use = 44 Visits/Day/Baseball Field	Availability = 82 Days/Season/Baseball Field	44 x 82	= 3,608 Visits Available/Year/Baseball Field
Field Hockey Field, (Fall)	Expected Use = 65 Visits/Day/Field Hockey Field	Availability = 82 Days/Season/Field Hockey Field	65 x 82	= 5,330 Visits Available/Year/Field Hockey Field
Football Field, (Fall)	Expected Use = 115 Visits/Day/Football Field	Availability = 67 Days/Season/Football Field	115 x 67	= 7,705 Visits Available/Season/Football Field
Lacrosse Field, (Spring)	Expected Use = 109 Visits/Day/Lacrosse Field (765 People/Week)	Availability = 82 Days/Season/Lacrosse Field	109 x 82	= 8,938 Visits Available/Season/Lacrosse Field
Soccer Field	Expected Use = 30 Visits/Day/Soccer Field	Availability = 224 Days/Year/Soccer Field	30 x 224	= 6,720 Visits Available/Year/Soccer Field
Basketball Court	Expected Use = 30 Visits/Day/Basketball Court	Availability = 91 Days/Season/Basketball Court	30 x 91	= 2,730 Visits Available/Year/Basketball Court
Tennis Court	Expected Use = 9 Visits/Day/Tennis Court	Availability = 98 Days/Year/Tennis Court	9 x 98	= 882 Visits Available/Year/Tennis Court

STEP 5: Expressed Demand

Summit Junior Baseball/Softball, (Spring)
Participation = 879 People/Year
Participation Frequency = 30 Visits/Person/Year
 $879 \times 30 = 11.66 \text{ Visits Required/Person/Year}$
439 (Total Number of Male High School Students)
45 x 60
 $= 6.15 \text{ Visits Required/Person/Year}$

High School Baseball

Participation = 45 People/Year
Participation Frequency = 60 Visits/Person/Year
 $45 \times 60 = 5.77 \text{ Visits Required/Person/Year}$
468 (Total Number of Female High School Students)

Total Baseball/Softball Field Demand = 7.86 Visits Required/Person/Year

High School Field Hockey

Participation = 65 People/Year
Participation Frequency = 65 Visits/Person/Year
 $65 \times 65 = 9.03 \text{ Visits Required/Person/Year}$
468 (Total Number of Female High School Students)

Total Field Hockey Field Demand = 9.03 Visits Required/Person/Year

Summit Recreational Football, (Fall)

Participation = 221 People/Year
Participation Frequency = 137 Visits/Person/Year
 $221 \times 137 = 45.19 \text{ Visits Required/Person/Year}$
670 (Total Number of Boys, Grades 4 through 8)

High School Football

Participation = 70 People/Year
Participation Frequency = 73 Visits/Person/Year
 $70 \times 73 = 11.64 \text{ Visits Required/Person/Year}$
439 (Total Number of Male High School Students)

Total Football Field Demand = 28.42 Visits Required/Person/Year

Expressed Demand (Cont.)

Lacrosse Club, (Spring)
Participation = 604 People/Year
Participation Frequency = 40 Visits/Person/Year
 $604 \times 40 = 9.49$ Visits Required/Person/Year
2,547 (Total Number of Students, Grades K through 8)

High School Lacrosse
Participation = 70 People/Year
Participation Frequency = 135 Visits/Person/Year
 $70 \times 135 = 10.42$ Visits Required/Person/Year
907 (Total Number of High School Students)

Total Lacrosse Field Demand = 9.96 Visits Required/Person/Year

Summit Recreational Soccer, (Fall)
Participation = 262 People/Year
Participation Frequency = 15 Visits/Person/Year
 $262 \times 15 = 2.31$ Visits Required/Person/Year
1,701 (Total Number of Students, Grades 3 through 8)

Summit Soccer Club
Participation = 465 People/Year
Participation Frequency = 75 Visits/Person/Year
 $465 \times 75 = 20.50$ Visits Required/Person/Year
1,701 (Total Number of Students, Grades 3 through 8)

YMCA Soccer, (Fall)
Participation = 501 People/Season
Participation Frequency = 24 Visits/Person/Season
 $501 \times 24 = 14.21$ Visits Required/Person/Season
846 (Total Number of Students, Grades K through 2)

YMCA Soccer, (Spring)
Participation = 400 People/Season
Participation Frequency = 30 Visits/Person/Season
 $400 \times 30 = 14.18$ Visits Required/Person/Season
846 (Total Number of Students, Grades K through 2)

High School Soccer
Participation = 135 People/Year
Participation Frequency = 60 Visits/Person/Year
 $135 \times 60 = 8.93$ Visits Required/Person/Year
907 (Total Number of High School Students)

Total Soccer Field Demand = 12.03 Visits Required/Person/Year

Expressed Demand (Cont.)

Youth Recreation Basketball
 Participation = 508 People/Year
 $508 \times 32 = 9.56$ Visits Required/Person/Year
 1,701 (Total Number of Students, Grades 3 through 8)

Boys Youth Recreation Travel Basketball
 Participation = 25 People/Year
 Participation Frequency = 40 Visits/Person/Year
 $25 \times 40 = 2.46$ Visits Required/Person/Year
 407 (Total Number of Middle School Boys)

Middle School Basketball
 Participation = 28 People/Year
 Participation Frequency = 40 Visits/Person/Year
 $28 \times 40 = 1.33$ Visits Required/Person/Year
 841 (Total Number of Middle School Students)

High School Basketball
 Participation = 76 People/Year
 Participation Frequency = 65 Visits/Person/Year
 $76 \times 65 = 5.45$ Visits/Required/Person/Year
 907 (Total Number of High School Students)

Total Basketball Court Demand = 4.70 Visits Required/Person/Year

Tennis Reacquainted, Summit Tennis Association
 Participation = 70 People/Year
 Participation Frequency = 18 Visits/Person/Year
 $70 \times 18 = 0.09$ Visits Required/Person/Year
 14,737 (Total Number of Citizens, Ages 15 through 75)

Middle School Tennis, Summit Tennis Association
 Participation = 90 People/Year
 Participation Frequency = 12 Visits/Person/Year
 $90 \times 12 = 1.28$ Visits Required/Person/Year
 841 (Total Number of Middle School Students)

High School Tennis
 Participation = 52 People/Year
 Participation Frequency = 26 Visits/Person/Year
 $52 \times 26 = 1.49$ Visits Required/Person/Year
 907 (Total Number of High School Students)

Total Tennis Court Demand = 0.95 Visits Required/Person/Year

STEP 6: Minimum Population Service Requirement

Baseball/Softball
Recreation Facility Supply = 3,608 Visits Available/Season/Soccer Field
Recreation Facility Demand = 7.86 Visits Required/Person/Season/Baseball Field
3,608 ÷ 7.86 = **459 People Served/Season/Baseball Field**

Field Hockey
Recreation Facility Supply = 5,330 Visits Available/Season/Field Hockey Field
Recreation Facility Demand = 9.03 Visits Required/Person/Season/Field Hockey Field
5,330 ÷ 9.03 = **590 People Served/Season/Field Hockey Field**

Football
Recreation Facility Supply = 7,705 Visits Available/Season/Football Field
Recreation Facility Demand = 28.42 Visits Required/Person/Season/Football Field
7,705 ÷ 28.42 = **271 People Served/Season/Football Field**

Lacrosse
Recreation Facility Supply = 8,938 Visits Available/Season/Lacrosse Field
Recreation Facility Demand = 9.96 Visits Required/Person/Season/Lacrosse Field
8,938 ÷ 9.96 = **897 People Served/Season/Lacrosse Field**

Soccer
Recreation Facility Supply = 6,720 Visits Available/Year/Soccer Field
Recreation Facility Demand = 12.03 Visits Required/Person/Year/Soccer Field
6,720 ÷ 12.03 = **559 People Served/Year/Soccer Field**

Basketball Court
Recreation Facility Supply = 2,730 Visits Available/Year/Basketball Court
Recreation Facility Demand = 4.70 Visits Required/Person/Year/Basketball Court
2,730 ÷ 4.70 = **581 People Served/Year/Basketball Court**

Tennis Court
Recreation Facility Supply = 882 Visits Available/Year/Tennis Court
Recreation Facility Demand = 0.95 Visits Required/Person/Year/Tennis Court
882 ÷ 0.95 = **928 People Served/Year/Tennis Court**

STEP 7: Level of Service by Park Classification

Activity	Population Served
Baseball/Softball Field	459
Field Hockey Field	590
Football Field	271
Lacrosse Field	897
Soccer Field	559
Basketball Court	581
Tennis Court	928
TOTAL SERVED	
4,285	
Mini Park @ 1 Acre ÷ 4,285 People	= 0.23 Acres/1,000People
School Park @ 3 Acres ÷ 4,285 People	= 0.70 Acres/1,000People
Athletic Field Park @ 6.5 Acres ÷ 4,285 People	= 1.52 Acres/1,000People
Special Use Park @ 15 Acres ÷ 4,285 People	= 3.50 Acres/1,000 People

STEP 8: Total Level of Service

Park Classification	Level of Service
Mini-Parks	0.23 Acres/1,000 People
School Parks	0.70 Acres/1,000 People
Special Use	1.52 Acres/1,000 People
Athletic Complex	3.50 Acres/1,000 People
Summit's current (2004) LEVEL OF SERVICE	
=5.95 Acres/1,000 People	

The National Recreation and Park Association recommends 6.25 – 10.5 acres per 1,000 people for total-close-to-home space.

Currently, Summit has 123.5 acres in parkland. As of 2000, the population for Summit stands at 21,131. If every 1000 people needed 10 acres, Summit would require 210 acres, 70% more acreage than they currently possess.

Projected 2010 Level of Service

STEP 4: Present Supply

Baseball/Softball Field
Expected Use = 48 Visits/Day/Baseball Field
Availability = 82 Days/Season/Baseball Field
48 x 82 = 3,936 Visits Available/Year/Baseball Field

Field Hockey Field
Expected Use = 65 Visits/Day/Field Hockey Field
Availability = 82 Days/Season/Field Hockey Field
65 x 82 = 5,330 Visits Available/Year/Field Hockey Field

Football Field
Expected Use = 132 Visits/Day/Lacrosse Field
Availability = 67 Days/Season/Football Field
132 x 67 = 8,884 Visits Available/Season/Football Field

Lacrosse Field
Expected Use = 115 Visits/Day/Lacrosse Field
Availability = 82 Days/Season/Lacrosse Field
115 x 82 = 9,430 Visits Available/Season/Lacrosse Field

Soccer Field
Expected Use = 36 Visits/Day/Soccer Field
Availability = 224 Days/Year/Soccer Field
36 x 224 = 8,064 Visits Available/Year/Soccer Field

Basketball Court
Expected Use = 36 Visits/Day/Basketball Court
Availability = 91 Days/Year/Basketball Court
36 x 91 = 3,276 Visits Available/Year/Basketball Court

Tennis Court
Expected Use = 12 Visits/Day/Tennis Court
Availability = 98 Days/Year/Tennis Court
12 x 98 = 1,176 Visits Available/Year/Tennis Court

STEP 5: Expressed Demand

Baseball/Softball Field	
Summit Junior Baseball/Softball Demand, 2010 = 11.42 Visits Required/Person/Year	
High School Baseball Team Demand, 2010 = 5.61 Visits Required/Person/Year	
High School Softball Team Demand, 2010 = 5.38 Visits Required/Person/Year	
Total Baseball/Softball Field Demand, 2010 = 7.47 Visits Required/Person/Year	
Field Hockey Field Demand, 2010	
= 8.31 Visits Required/Person/Year	
Football Field	
Summit Recreational Football Demand, 2010 = 21.97 Visits Required/Person/Year	
High School Team Demand, 2010 = 10.74 Visits Required/Person/Year	
Total Football Field Demand, 2010	
= 16.36 Visits Required/Person/Year	
Lacrosse Field	
Lacrosse Club Demand, 2010 = 9.53 Visits Required/Person/Year	
High School Team Demand, 2010 = 9.46 Visits Required/Person/Year	
Total Lacrosse Field Demand, 2010	
= 9.50 Visits Required/Person/Year	
Soccer Field	
Summit Recreational Soccer Demand, 2010 = 2.37 Visits Required/Person/Year	
Summit Soccer Club Demand, 2010 = 20.09 Visits Required/Person/Year	
YMCA Soccer Demand, 2010 = 14.50 Visits Required/Person/Year	
High School Team Demand, 2010 = 8.00 Visits Required/Person/Year	
Total Soccer Field Demand, 2010	
= 11.24 Visits Required/Person/Year	
Basketball Court	
Youth Recreation Demand, 2010 = 9.83 Visits Required/Person/Year	
Boys Youth Recreation Travel Demand, 2010 = 2.32 Visits Required/Person/Year	
Middle School Demand, 2010 = 1.26 Visits Required/Person/Year	
High School Demand, 2010 = 4.63 Visits Required/Person/Year	
Total Basketball Court Demand, 2010	
= 4.51 Visits Required/Person/Year	
Tennis Court	
Tennis Reacquainted Demand, 2010 = 0.09 Visits Required/Person/Year	
Middle School Tennis Demand, 2010 = 1.38 Visits Required/Person/Year	
High School Tennis Demand, 2010 = 1.56 Visits Required/Person/Year	
Total Tennis Court Demand, 2010	
= 1.01 Visits Required/Person/Year	

STEP 6: Minimum Population Service Requirement

Baseball/Softball
Recreation Facility Supply = 3,936 Visits Available/Season/Baseball Field
Recreation Facility Demand = 7.47 Visits Required/Person/Season/Baseball Field
3,936 ÷ 7.47 = 527 People Served/Season/Baseball Field

Field Hockey
Recreation Facility Supply = 5,330 Visits Available/Season/Field Hockey Field
Recreation Facility Demand = 8.31 Visits Required/Person/Season/Field Hockey Field
5,330 ÷ 8.31 = 642 People Served/Season/Field Hockey Field

Football
Recreation Facility Supply = 8,884 Visits Available/Season/Football Field
Recreation Facility Demand = 16.36 Visits Required/Person/Season/Football Field
8,884 ÷ 16.36 = 543 People Served/Season/Football Field

Lacrosse
Recreation Facility Supply = 9,430 Visits Available/Season/Lacrosse Field
Recreation Facility Demand = 9.50 Visits Required/Person/Season/Lacrosse Field
9,430 ÷ 9.50 = 993 People Served/Season/Lacrosse Field

Soccer
Recreation Facility Supply = 8,064 Visits Available/Season/Soccer Field
Recreation Facility Demand = 11.24 Visits Required/Person/Season/Soccer Field
8,064 ÷ 11.24 = 717 People Served/Season/Soccer Field

Basketball
Recreation Facility Supply = 3,276 Visits Available/Year/Basketball Court
Recreation Facility Demand = 4.51 Visits Required/Person/Year/Basketball Court
3,276 ÷ 4.51 = 726 People Served/Year/Basketball Court

Tennis
Recreation Facility Supply = 1,176 Visits Available/Year/Tennis Court
Recreation Facility Demand = 1.01 Visits Required/Person/Year/Tennis Court
1,176 ÷ 1.01 = 1,164 People Served/Year/Tennis Court

STEP 7: Level of Service by Park Classification

Activity	Population Served
Baseball/Softball Field	527
Field Hockey Field	642
Football Field	543
Lacrosse Field	993
Soccer Field	717
Basketball Court	726
Tennis Court	1,164
TOTAL SERVED	5,312

Mini-Parks @ 1 Acre ÷ 5,312 People	= 0.19 Acres/1000 People
School Parks @ 3 Acres ÷ 5,312 People	= 0.56 Acres/1000 People
Special Use @ 6.5 Acres ÷ 5,312 People	= 1.22 Acres/1000 People
Athletic Complex @ 15 Acres ÷ 5,312 People	= 2.82 Acres/1000 People

1,000 People

STEP 8: Total Level of Service

Park Class	LOS
Mini-Parks	0.19 Acres/1,000 People
School Parks	0.56 Acres/1,000 People
Special Use	1.22 Acres/1,000 People
Athletic Complex	2.82 Acres/1,000 People
Summit's potential (2010) LEVEL OF SERVICE	=4.79 Acres/1,000 People

The National Recreation and Park Association recommends 6.25 – 10.5 acres per 1000 people for total-close-to-home space.

In the year 2010, the population of Summit is projected to reach 22,115. Currently Summit possesses 123.5 acres of parkland. If every 1000 people need 10 acres, Summit would require 220 acres of park land, 78% more acreage than they currently own.

List of Park Facilities and Facility Users

Mini-Parks

Mabie Field – 1.2 Acres

Basketball Courts (2)

Tot Lots (2)

Bocce Pits (2)

Horseshoe Pit

School Parks

Jefferson – 8.4 Acres

Baseball/Softball Field (Lighted)

- Youth Baseball (Spring and Fall)

Lincoln – 6 Acres

Baseball/Softball Field

- Youth Baseball (Spring)

Multi-Purpose Field

- YMCA Soccer (Spring and Fall)

- Youth Lacrosse practice (Spring)

Washington – 5.8 Acres

Multi-Purpose Field

- High School Football (Fall)

- Youth Football (Fall)

- JV Boys High School Lacrosse (Spring)

- Youth Lacrosse (Spring)

High School – 18.3 Acres

Upper Field -

Baseball Field (Regulation Size)

- Fresh High School Baseball (Spring)

- Youth Baseball (Spring)

Multi-Purpose Field

- JV High School Field Hockey (Fall)

- JV Girls High School Lacrosse (Spring)

- Youth Lacrosse Club (Spring)

Lower Field -

Baseball/Softball Field

- Youth Baseball (Spring)

Multi-Purpose Field

- Var. High School Field Hockey (Fall)

- Var. Girls High School Lacrosse (Spring)

- YMCA Soccer (Spring)

Glenside – 2 Acres

Large-sided Soccer Field

- Youth Soccer Club (Spring and Fall)

Small-sided Soccer Field

- Youth Soccer Club (Spring and Fall)

Franklin – 6.4 Acres

Baseball/Softball Field - Unused

Large Soccer/Lacrosse Field

- Fresh Girls High School Soccer (Fall)

- Youth Soccer Club (Spring and Fall)

- Fresh Boys High School Lacrosse (Spring)

- Youth Lacrosse Club (Spring)

Brayton – 3.4 Acres

Multi-purpose Field

- Youth Soccer practice (Spring and Fall)

Wilson – 8.8 Acres

Baseball Field (Regulation Size)

- JV High School Baseball (Spring)

- Youth Baseball (Spring)

Multi-Purpose Field

- Fresh. Boys High School Soccer (Fall)

- YMCA Soccer (Fall)

- Youth Lacrosse Club (Spring)

Middle School – 4.6 Acres

Baseball/Softball Fields (2)

- Middle School Softball (Spring)

- Youth Baseball (Spring)

Multi-Purpose Field

- Middle School Field Hockey (Fall)

- Youth Soccer (Spring and Fall)

Athletic Fields
Memorial - 16.8 Acres
Varsity Soccer Field
- Varsity High School Soccer (Fall)
- Youth Soccer (Fall)
- Limited Youth Soccer (Spring)
- Limited Youth Lacrosse Club (Spring)
Junior Varsity Soccer Field
- JV High School Soccer (Fall)
- Youth Soccer (Fall)
Baseball Field (Regulation Size)
- Varsity High School Baseball (Spring)
Baseball/Softball Fields (2)
- High School Softball (Spring)
- Youth Baseball (Spring)
- Youth Softball (Spring)
- Adult Softball (Spring/Summer)
Multi-Purpose Field (Baseball/Softball Fields' Outfields)
- Youth Soccer (Fall)

Special Use Areas
Cornog Fieldhouse - 3.2 Acres
Tennis Courts (6)
Tot Lot
(Priv. Sch.)
- Oak Knoll Softball (Spring) -
- Youth Baseball (Spring)
- Youth Softball (Spring)
Multi-Purpose Area (Baseball Field
Outfield)
- Youth Soccer (Fall)

Special Events throughout year
Washington County Fair, May,
Expected Use = 2,000 Visits/Day
Youth Football Camp, June
Expected Use = 100 Visits/Day
Availability = 3 Days/Year
100 x 3 = 300 Visits Available/Year
High School Graduation, June
Expected Use = 1,250 Visits/Day
Pumpkin/Hayride Event
Expected Use = 500 Visits/Day
Washington School Field Day, May
Expected Use = 500 Visits/Day
Alumni Lacrosse Game, June
Expected Use = 100 Visits/Day
Washington School Fall Festival, Sept.
Expected Use = 500 Visits/Day

Totalling: 2,000 + 500 + 300 + 500 + 500 + 1,250 + 500 = 5,050 Visits Available/Year

<i>Special Event Demand</i>	
Washington County Fair	
Recreation Participation = 2000 People/Year	
$\frac{2000}{2000} = 0.09$ Visits Required/Person/Year	
21,131 (Total Population of Summit)	
Washington School Field Day	
Recreation Participation = 500 People/Year	
$\frac{500}{500} = 0.02$ Visits Required/Person/Year	
21,131	
Youth Football Camp	
Recreation Participation = 100 People/Year	
Participation Frequency = 3 Visits/Person/Year	
$\frac{100 \times 3 = 0.01$ Visits Required/Person/Year	
21,131	
Alumni Lacrosse Game	
Recreation Participation = 100 People/Year	
$\frac{100}{100} = 0.004$ Visits Required/Person/Year	
21,131	
Washington School Fall Festival	
Recreation Participation = 500 People/Year	
$\frac{500}{500} = 0.02$ Visits Required/Person/Year	
21,131	
High School Graduation	
Recreation Participation = 1,250 People/Year	
$\frac{1,250}{1,250} = 0.06$ Visits Required/Person/Year	
21,131	
Pumpkin/Hayride Event	
Recreation Participation = 500 People/Year	
$\frac{500}{500} = 0.02$ Visits Required/Person/Year	
21,131	
Total Special Event Demand = 0.22 Visits/	
Washington School Fall Festival	

Field Assignments for Summit Sports

High School Sports

Fall

Soccer

Boys Varsity and Junior Varsity – Memorial Varsity Field,
(Games are alternated Home and Away for the two teams)
Boys Freshman – Wilson Field

Girls Varsity and Junior Varsity – Memorial Junior Varsity Field,
(Games are alternated Home and Away for the two teams)
Girls Freshman – Franklin Field

Field Hockey

Varsity and Junior Varsity – Upper and Lower High School Fields

Football

Varsity, Junior Varsity, and Freshman – Washington and Taillock Fields

Spring

Lacrosse

Boys Varsity, Junior Varsity, and Freshman – Washington and Taillock Fields

Girls Varsity, Junior Varsity, and Freshman – Lower High School and Taillock Fields

Baseball

Varsity – Memorial Field
Junior Varsity – Wilson Field
Freshman – Upper High School Field

Softball

Varsity, Junior Varsity, and Freshman – Memorial Field

Youth Recreation Leagues

Fall

Soccer
YMCA League – Wilson and Lincoln Fields
Summit Soccer Club – Franklin, Glenside, Tatlock, Memorial, and Middle School Fields
Summit Recreation League –

Football

Summit Recreation League – Washington and Tatlock Fields

Spring

Lacrosse

Summit Lacrosse Club – Washington Field

Baseball and Softball

Junior League – Uses any available Baseball diamonds, including but not limited to:
Franklin Field
Jefferson Field
Lincoln Field
Memorial Field
Middle School Field
Recreation Center Field
High School Field

Soccer
YMCA League – Lincoln and Lower High School Field
Summit Soccer Club – Franklin, Glenside, Tatlock, Memorial, and Middle School Fields

Individual Field Level of Service

Franklin School

Supply

Soccer Field, (Fall)
Expected Use = 46 Visits/Day/Soccer Field (H.S. Team + 2 Soccer Club Teams)
Availability = 61 Days/Season/Soccer Field (Sept – Nov less 30 Rain Days)
 $46 \times 61 = 2,806$ Visits Available/Season/Soccer Field

Soccer Field, (Spring)
Expected Use = 30 Visits/Day/Soccer Field (2 Soccer Club Teams)
Availability = 62 Days/Season/Soccer Field (Mar – May less 30 Rain Days)
 $30 \times 62 = 1,860$ Visits Available/Season/Soccer Field

Lacrosse Field, (Spring)
Expected Use = 254 Visits/Day/Lacrosse Field (H.S. Team + Portion of Lacrosse Club)
Availability = 62 Days/Season/Lacrosse Field (Mar – May less 30 Rain Days)
 $254 \times 62 = 15,748$ Visits Available/Lacrosse Field

Demand

Soccer Field, (Fall)
Summit Soccer Club
Recreation Participation = 465 People/Year
Participation Frequency = 75 Visits/Person/Year
 $465 \times 75 = 20,500$ Visits Required/Person/Year
1,701 (Total Number of Students, Grades 3 through 8)

High School – Girls Freshman Soccer
Recreation Participation = 16 People/Year
Participation Frequency = 60 Visits/Person/Year
 $16 \times 60 = 7,320$ Visits Required/Person/Year
131 (Total Number of Freshman Girls)

Soccer Field, (Spring)
Recreation Participation = 435 People/Year
Participation Frequency

Appendix B
Athletic Needs Assessment Formula

EVENTS DRIVEN APPROACH -- LEAGUE DATA

Note: Required fields identified as (i.e. 7 min.) is based on the individual leagues limited game schedules.

SPRING

[illegible]

51	51
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1	Legion Sr./Jr. Baseball
2	Summit Jr. Summer Baseball

[illegible]

51	N/A	2	36	1	0
51	200	11	88	2	0

Current

	Participants	120	10	120	4	3
		139	10	250	4	3
	N/A	1	50	1	0	0
	N/A	2	120	2	1	6
	572	48	1200	13	6	10
	295	25	625	11	2	10
	N/A	3	180	2	0	0
	264	17	366	4	1	2
	248	18	387	4	2	3-5
	525	21	315	5-7	2	1
	346	16	352	3	0	0
	319	11	242	2	0	0
	N/A	3	156	2	0	0
	N/A	3	156	2	0	0

0	1	36	2	N/A
0	2	96	12	220

Short Term (2007)

[illegible]

0	1	36	2	N/A
0	2	104	13	240

FALL

Recreation Soccer	3	Summit Soccer Club U11 and Over	4	Under U11	2	YMCA Soccer	2	HS Boys Soccer	2	HS Girls Soccer	1	Summit Youth Football	3	HS Football	2	HS Field Hockey	2	MS Field Hockey	1	Jr. Fall Baseball	1
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77	100	100	70	115	115	113	117	117	117	93
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93	45	3	93	1	0
117	N/A	1	40	1	0
117	N/A	3	120	2	0
117	N/A	3	120	2	0
113	221	6	138	2	0
115	N/A	3	105	1	0
115	N/A	6	105	1	0
70	480	26	390	6-9	4-7
100	195	14	301	3	1
100	240	15	323	4	0
77	262	16	120	2	1

316	20	150	2	1
264	17	366	4	0
215	16	344	4	2
526	26	420	6-9	4-7
N/A	6	105	1	0
N/A	3	105	1	0
250	7	161	2	0
N/A	3	120	2	0
N/A	3	120	2	0
N/A	1	40	1	0
45	3	93	1	0

316	20	150	2	1
268	18	387	4	0
234	17	366	4	2
576	31	465	7-10	5-8
N/A	6	105	1	0
N/A	3	105	1	0
300	8	184	2	0
N/A	3	120	2	0
N/A	3	120	2	0
N/A	1	40	1	0
45	3	93	1	0

EVENTS DRIVEN APPROACH -- CENSUS DATA

Note: Required fields identified as (ie. 7 min.); is based on the individual leagues limited game schedules.

SPRING

Current

Short Term (2007)

Long Term (2014)

Recreational	Field Usage	Estimated per Field	Maximum
Summit Softball/Men's Fast/Slow Pitch	1	30	96
Summit Jr. Softball Girls	1	69	126
MS Softball Girls	1	60	N/A
HS Softball Girls	1	98	N/A
Summit Jr. Baseball	7	92	520
Summit T-Ball	1	60	266
HS Baseball	2	99	N/A
Summit Soccer	1	70	510
Summit Boys Lacrosse	3	119	314
Summit Girls Lacrosse	2	119	290
HS Boys Lacrosse	2	120	N/A
HS Girls Lacrosse	2	120	N/A

Required Fields	Required Fields	Events	Team	Registrants
3	4	96	8	96
3	4	225	9	126
0	1	50	1	N/A
2	2	120	2	N/A
1	13	1125	45	534
9	10	575	23	276
0	2	180	3	N/A
0	3	344	16	247
1	3	366	17	232
3-5	3-5	21	315	525
0	3	300	15	323
0	2	220	10	299
0	2	156	3	N/A
0	2	156	3	N/A

Required Fields	Required Fields	Events	Team	Registrants
3	4	108	9	99
3	4	225	9	130
0	1	50	1	N/A
2	2	120	2	N/A
6	13	1175	47	534
9	10	575	23	276
0	2	180	3	N/A
0	3	344	16	247
1	3	366	17	232
3-5	3-5	21	315	525
0	3	300	15	323
0	2	220	10	299
0	2	156	3	N/A
0	2	156	3	N/A

Required Fields	Required Fields	Events	Team	Registrants
3	4	104	9	104
3	4	250	10	136
0	1	50	1	N/A
2	2	120	2	N/A
6	13	1175	47	560
9	10	600	24	289
0	2	180	3	N/A
0	3	366	17	259
2	4	387	16	243
3-5	3-5	22	330	549
0	3	352	16	338
0	2	242	11	313
0	2	156	3	N/A
0	2	156	3	N/A

Summit Jr. Baseball	2
Legion Sr./Jr. Baseball	1

51	51
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200	11	88	2	1	0
N/A	2	36	1	0	0

206	11	88	2	1	0
N/A	2	36	1	0	0

216	12	96	2	1	0
N/A	2	36	1	0	0

Recreation Soccer	3
Summit Soccer Club U11 and Over	4
Under U11	2
YMCA Soccer	2
HS Boys Soccer	2
HS Girls Soccer	1
Summit Youth Football	3
HS Football	2
HS Field Hockey	2
MS Field Hockey	1
Jr. Fall Baseball	1

77	100	115	113	117	117	117	93
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262	16	120	2	0	0	0	0	0	1	3	93	45
N/A	15	323	4	0	1	0	0	0	1	1	40	N/A
240	14	301	3	1	4-7	6-9	26	480	N/A	3	105	N/A
N/A	105	1	0	0	1	105	3	N/A	3	120	2	N/A
2	2	138	2	0	2	138	6	221	N/A	3	120	N/A
0	2	120	2	0	2	120	3	N/A	3	120	2	N/A
0	1	40	1	0	1	40	1	N/A	1	40	1	N/A
0	1	124	2	0	2	124	4	47	N/A	1	40	N/A

270	17	128	2	0	0	0	2	4-7	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	105	1	0	N/A	3	
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283	16	135	2	0	0	0	0	4-7	N/A	3	105	N/A	49
259	17	366	4	0	2	4	15	210	N/A	3	105	N/A	N/A
28	28	420	6-9	4	4	6-9	323	4	N/A	3	120	N/A	N/A
0	2	135	2	0	2	2	161	238	N/A	3	120	N/A	N/A
0	1	105	1	0	1	105	3	N/A	3	120	2	N/A	N/A
0	1	40	1	0	1	40	1	N/A	1	40	1	N/A	N/A
0	1	124	2	0	2	2	4	49	N/A	1	40	N/A	N/A

FALL

SPRING

Recreational Activity	Summit Softball/Men's Fast/Slow Pitch	Summit Jr. Softball Girls	MS Softball Girls	HS Softball Girls	Summit Jr. Baseball	Summit T-Ball	HS Baseball	Summit Girls Lacrosse	HS Boys Lacrosse	HS Girls Lacrosse
Existing Field Usage	1	1	1	1	7	1	2	2	2	2
Medium per Field	103	103	103	103	103	103	103	69	69	69

Registration Events	96	126	N/A	N/A	520	268	N/A	290	314	510
Teams	8	9	2	2	43	22	3	10	14	20
Fields Required	1	3	1	1	11	6	2	4	5	5
Fields Available	0	2	0	1	4	5	0	2	3	4

Current

Registration Events	120	139	N/A	N/A	572	295	N/A	319	346	516
Teams	10	10	1	2	48	25	3	11	16	22
Fields Required	2	3	1	2	1200	625	180	242	352	330
Fields Available	1	2	0	1	5	5	2	4	6	5

Short Term (2007)

Registration Events	120	151	N/A	N/A	624	322	N/A	346	377	612
Teams	10	11	1	2	52	27	3	12	18	24
Fields Required	2	3	1	2	1300	675	180	264	396	360
Fields Available	1	2	0	4	6	7	2	4	6	5

Long Term (2014)

Summit Jr. Summer Baseball	2
Legion Sr./Jr. Baseball	1

103

200	11	88	1	0
N/A	2	36	1	0

FALL

Recreation Soccer	3
Summit Soccer Club U11 and Over	4
Under U11 Soccer	2
YMCA Soccer	2
HS Boys Soccer	2
HS Girls Soccer	1
Summit Youth Football	3
HS Football	2
Field Hockey HS	2
Field Hockey MS	1
Baseball Jr. Fall	1

69	69	69	69	69	69	69	69	69	69	69	103
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262	16	120	2	0
240	15	323	5	1
195	14	301	5	3
490	26	390	6	4
N/A	3	105	2	0
N/A	3	105	2	1
221	6	136	2	0
N/A	3	120	2	0
N/A	3	120	2	0
N/A	1	40	1	0
45	3	93	1	0

316	20	150	3	0
264	17	366	6	2
215	16	344	5	3
528	28	420	6	4
N/A	3	105	2	0
N/A	3	105	2	1
250	7	161	3	0
N/A	3	120	2	0
N/A	3	120	2	0
N/A	1	40	1	0
45	3	93	1	0

316	20	150	3	0
288	18	387	6	2
234	17	366	6	4
576	31	465	7	5
N/A	3	105	2	0
N/A	3	105	2	1
300	8	184	3	0
N/A	3	120	2	0
N/A	3	120	2	0
N/A	1	40	1	0
45	3	93	1	0

SPRING

Recreational Activity	Feld Usage	Maximum Events per Field
Summit Softball/Men's Fast/Slow Pitch	1	103
Summit J.V. Softball Girls	1	103
MS Softball Girls	1	103
HS Softball Girls	1	103
Summit Jr. Softball	7	103
Baseball	1	103
Summit T-Ball	2	103
HS Baseball	2	103
Summit Soccer Club U11 and Over	3	69
Under U11	2	69
VIAA Soccer	1	69
Summit Boys Lacrosse	2	69
Summit Girls Lacrosse	2	69
HS Boys Lacrosse	2	69
HS Girls Lacrosse	2	69

Current

Registrants	96	8	96	1	0	2	0	1	0	1	4	5	0	N/A	290	N/A	N/A	1	1
Teams	8	96	225	3	0	2	1	50	2	120	2	11	6	2	180	5	344	5	3
License Fees	96	96	225	3	0	2	1	50	2	120	2	11	6	2	180	5	344	5	3
Required Funds	0	1	0	0	0	1	4	5	0	N/A	2	11	6	2	180	5	344	5	3

Short Term (2007)

Registration	Teams	Events	Required	Results
99	9	108	1	0
130	9	225	3	0
N/A	1	50	1	0
N/A	2	120	2	1
534	47	1125	11	4
276	23	575	6	0
N/A	3	180	2	0
247	16	344	5	2
232	17	366	6	4
525	21	315	5	4
283	15	330	5	3
220	10	220	4	2
N/A	3	156	3	1
N/A	3	156	3	1

Long Term (2014)

Registration	Team	Events	Required Fields	Photo Upload
104	9	108	1	0
136	10	250	3	0.5
N/A	1	50	1	0
N/A	2	120	2	1
560	47	1175	12	5
289	24	600	6	5
N/A	3	180	2	0
259	17	366	6	3
243	18	387	6	4
549	22	330	5	4
338	16	352	6	4
313	11	242	4	2
N/A	3	156	3	1
N/A	3	156	3	1

FALL

Summit Jr. Summer Baseball	2	103
Legion Sr./Jr. Baseball	1	103

0	1	36	2	N/A
0	1	88	11	200

0	1	36	2	N/A
0	1	88	11	206

0	1	36	2	N/A
0	1	96	12	216

3	Recreation Soccer	
4	Summit Soccer Club U11 and Over	Under U11
2	YMCA Soccer	
2	HS Boys Soccer	
1	HS Girls Soccer	
3	Summit Youth Football	HS Football
2		HS Field Hockey
1	MS Field Hockey	
1	Jr. Fall Baseball	

262	16	120	2
240	15	223	5
195	14	301	5
480	26	390	6
N/A	3	105	2
N/A	3	105	2
221	6	138	2
N/A	3	120	2
N/A	3	120	2
N/A	1	40	1
45	3	93	1

270	17	128	2	0
247	16	344	5	1
201	15	323	5	3
494	26	390	6	4
N/A	3	105	2	0
N/A	3	105	2	0
N/A	3	105	2	1
228	6	138	2	0
N/A	3	120	2	0
N/A	3	120	2	0
N/A	1	40	1	0
47	4	124	2	1

[illegible]

FINAL NEEDS ANALYSIS, EVENTS DRIVEN APPROACH

	S P R I N G														S U M M E R		F A L L							
Recreational Activity	Summit Soccer/Slow Pitch	Summit Jr. Softball	Girls MS Softball	Girls HS Softball	Summit T-Ball	HS Baseball	Summit Soccer Club (full-size)	Under U11 (short-side)	YMCA Soccer (full-size)	Under U11 (short-side)	Summit Boys Lacrosse	Summit Girls Lacrosse	HS Boys Lacrosse	HS Girls Lacrosse	Summit Jr. Summer Baseball	Legion Sr./Jr. Baseball	Recreation Soccer	HS Boys Soccer	HS Girls Soccer	Summit Youth Football	HS Football	HS Field Hockey	MS Field Hockey	Jr. Fall Baseball

[illegible]

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[illegible][illegible]

FINAL NEEDS ANALYSIS, IOWA STATE UNIVERSITY STUDY APPROACH

Recreational	Summit Softball/Men's Fast/Slow Pitch	Summit Jr. Softball	Girls	MS Softball	Girls	HS Softball	Girls	Summit Jr. Baseball	Summit T-Ball	HS Baseball	Summit Soccer Club U11 and Over	Under U11	YMCA Soccer (full-size)	Under U11 (short-sided)	YMCA Soccer	Summit Boys Lacrosse	Summit Girls Lacrosse	Summit Boys Lacrosse	HS Boys Lacrosse	HS Girls Lacrosse	Summit Jr. Baseball	Legion Sr./Jr. Baseball	Recreation Soccer	HS Boys Soccer	HS Girls Soccer	Summit Youth Football	HS Football	Field Hockey	MS Field Hockey	Jr. Field Baseball
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COMPARISON

CURRENT		SHORT TERM		LONG TERM	
LEAGUE	CENSUS	LEAGUE	CENSUS	LEAGUE	CENSUS
0	0	0	0	1	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
1	1	1	1	1	1
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
1	1	1	1	1	1
1	1	1	1	1	1
2	2	2	2	2	2
3	3	4	3	4	4
8	8	8	8	10	8
4	4	4	4	5	4
3	3	3	3	3	3
6	3	7	3	5	5
0	0	0	0	0	0
5	5	5	5	6	5
4	4	5	4	6	5
1	1	1	1	1	1
0	0	0	0	0	0
2	2	2	2	2	2
0	0	1	0	1	0

RESULTS

CURRENT	SHORT TERM	LONG TERM
0	1	0
0	0	0
0	0	0
0	0	0
0	0	0
1	0	0
0	0	0
0	0	0
0	0	0
0	0	0
1	0	0
1	0	0
2	0	0
3	1	0
8	0	2
2	3	1
6	1	0
3	2	2
0	0	0
5	0	1
4	1	1
1	0	0
0	0	0
2	0	0
0	1	0

TOTALS

1	0	0	0	0	1	0	0	0	0	1	1	2	4	10	2	6	5	9	0	6	6	1	0	2	1
---	---	---	---	---	---	---	---	---	---	---	---	---	---	----	---	---	---	---	---	---	---	---	---	---	---

CITY OF SUMMIT
9-14-04

Monday		Tuesday		Wednesday		Thursday		Friday		Saturday		Sunday	
Jefferson School	Jr. Baseball	Jr. Baseball	Jr. Baseball	Jr. Baseball	Jr. Baseball	Jr. Baseball	Jr. Baseball	Jr. Baseball	Jr. Baseball	Jr. Baseball	Jr. Baseball	Jr. Baseball	Jr. Baseball
Fraklin School	HS Girls Lacrosse	HS Girls Lacrosse	HS Girls Lacrosse	HS Girls Lacrosse	HS Girls Lacrosse	HS Girls Lacrosse	HS Girls Lacrosse	HS Girls Lacrosse	HS Girls Lacrosse	HS Girls Lacrosse	HS Girls Lacrosse	HS Girls Lacrosse	HS Girls Lacrosse
Lincoln School	open lawn area	open lawn area	open lawn area	open lawn area	open lawn area	open lawn area	open lawn area	open lawn area	open lawn area	open lawn area	open lawn area	open lawn area	open lawn area
Washington School	HS Boys Lacrosse	HS Boys Lacrosse	HS Boys Lacrosse	HS Boys Lacrosse	HS Boys Lacrosse	HS Boys Lacrosse	HS Boys Lacrosse	HS Boys Lacrosse	HS Boys Lacrosse	HS Boys Lacrosse	HS Boys Lacrosse	HS Boys Lacrosse	HS Boys Lacrosse
Wilson School	baseball field	baseball field	baseball field	baseball field	baseball field	baseball field	baseball field	baseball field	baseball field	baseball field	baseball field	baseball field	baseball field
Middle School	softball field #1	MS Softball	MS Softball	MS Softball	MS Softball	MS Softball	MS Softball	MS Softball	MS Softball	MS Softball	MS Softball	MS Softball	MS Softball
	softball field #2	MS Softball	MS Softball	MS Softball	MS Softball	MS Softball	MS Softball	MS Softball	MS Softball	MS Softball	MS Softball	MS Softball	MS Softball
High School	baseball field	HS Baseball	HS Baseball	HS Baseball	HS Baseball	HS Baseball	HS Baseball	HS Baseball	HS Baseball	HS Baseball	HS Baseball	HS Baseball	HS Baseball
	multi-purpose upper	Summit Lacrosse	Summit Lacrosse	Summit Lacrosse	Summit Lacrosse	Summit Lacrosse	Summit Lacrosse	Summit Lacrosse	Summit Lacrosse	Summit Lacrosse	Summit Lacrosse	Summit Lacrosse	Summit Lacrosse
lower	softball field	Jr. Baseball	Jr. Baseball	Jr. Baseball	Jr. Baseball	Jr. Baseball	Jr. Baseball	Jr. Baseball	Jr. Baseball	Jr. Baseball	Jr. Baseball	Jr. Baseball	Jr. Baseball
Recreation Center	baseball field	Oak Knoll Softball	Oak Knoll Softball	Oak Knoll Softball	Oak Knoll Softball	Oak Knoll Softball	Oak Knoll Softball	Oak Knoll Softball	Oak Knoll Softball	Oak Knoll Softball	Oak Knoll Softball	Oak Knoll Softball	Oak Knoll Softball
Glenside	upper field	Soccer Club	Soccer Club	Soccer Club	Soccer Club	Soccer Club	Soccer Club	Soccer Club	Soccer Club	Soccer Club	Soccer Club	Soccer Club	Soccer Club
Tallock	main field	HS Track	HS Track	HS Track	HS Track	HS Track	HS Track	HS Track	HS Track	HS Track	HS Track	HS Track	HS Track
	upper field	HS Boys Lacrosse	HS Boys Lacrosse	HS Boys Lacrosse	HS Boys Lacrosse	HS Boys Lacrosse	HS Boys Lacrosse	HS Boys Lacrosse	HS Boys Lacrosse	HS Boys Lacrosse	HS Boys Lacrosse	HS Boys Lacrosse	HS Boys Lacrosse
Memorial	greenfield	HS	HS	HS	HS	HS	HS	HS	HS	HS	HS	HS	HS
	soccer field #1	Soccer Club	Soccer Club	Soccer Club	Soccer Club	Soccer Club	Soccer Club	Soccer Club	Soccer Club	Soccer Club	Soccer Club	Soccer Club	Soccer Club
Memorial	soccer field #2	baseball field	baseball field	baseball field	baseball field	baseball field	baseball field	baseball field	baseball field	baseball field	baseball field	baseball field	baseball field
	lower field	HS Softball	HS Softball	HS Softball	HS Softball	HS Softball	HS Softball	HS Softball	HS Softball	HS Softball	HS Softball	HS Softball	HS Softball

indicates field/area not available due to adjacent/shared use

CITY OF SUMMIT
9-14-04

indicates field/area not available due to adjacent/shared use

Events Driven Approach Analysis

Analysis method specifically developed to determine athletic field availability within the City of Summit.

(Sample Formula):

Activity (A) current registrants = 300
Activity (A) registrants per team = 20
Activity (A) number of teams (300÷20) = 15 teams
Activity (A) Events = 12 home games per team, 20 practices per team
(12 x 15 = 180 games) or 180 events
(20 x 15 = 300 practices) or 300 events

Total No. of Events for Activity (A) (180 + 300) = 480

Activity (A) season =
Sept. 22 wk days & 8 wk end days
Oct. 21 wk days & 10 wk end days
Nov. 22 wk days & 8 wk end days
65 wk days & 26 wk end days

Activity (A) potential playable days (65 + 26) = 91
Rain/Recovery day factor (30 rain days + 15 recovery days) = 45 days

65 wk days - 32 rain/recovery days = 33 playable wk days
26 wk end days - 13 (50%) rain/recovery days = 13 playable wk end days
91 days - 45 rain/recovery days = 46 playable days

Activity (A) potential playable days (91 - 45) = 46 days

Activity (A) schedules is 6pm - 8 pm on wk days = 2 hrs
9am - 5 pm on wk end days = 8 hrs
Events Duration: 2 hrs. (Games and Practices)
Playable wk days = 33 @ 1 (2hr. event) = 33 events
Playable wk end days = 13 @ 4 (2hr. events) = 52 events
Activity (A) total possible events per field = 85 events

Activity (A) total number of events = 480
Activity (A) total number of possible events per field = 85

Total number of fields required for Activity (A) (480 ÷ 85) = 5.65
or 6 fields

* Important to note: Events Driven Approach measures only field availability and does not consider the impact of events on the field and the requirements of maintenance, including the resting of fields and restoration.

RAIN DATA -- SUMMIT, NJ 2003-2004

Amount of Rain Days 0.05" and over

based on AccuWeather.com information

Weekdays Weekend Days

Month	Weekdays	Weekend Days	Total:
March	11	2	
April	9	1	
May	13	2	
June	6	1	
July	8	1	
August	6	6	
September	8	3	
October	7	0	
November	9	0	
Total:	76	16	

Total Rain Days:	92
Total Days:	275
Total Rain Days per year:	122
Total Days per year:	365
Rain Days - Spring:	40
Rain Days - Summer:	15
Rain Days - Fall:	30
	4 mo. x 10 rain days per month = 40 rain days
	1.5 mo. x 10 rain days per month = 15 rain days
	3 mo. x 10 rain days per month = 30 rain days

122/12 mo. = 10 rain days per month

PRELIMINARY

**SUMMIT
SPRING
ATHLETIC LEAGUES**

EVENTS DRIVEN APPROACH: (DATA)

Possible events per league calculations:

2003
SUMMIT SOFTBALL/MEN'S FAST/SLOW PITCH (SPRING)
League

Given:

- Registrants = 96
- Teams = 8
- Home games = 20
- Practices = 2
- No travel leagues

Calculation:

- No travel leagues = Games = .5 Event, Practices = 1 Event
- Players per team (96 ÷ 8) = 12

- 8 Teams x 20 Games = 160 ÷ 2 (.5 Event) = 80 Game Events
- 8 Teams x 2 Practices = 16 Practice Events

□ 80 Game Events + 16 Practice Events = 96 Events

2007
League

Given:

➤ Registrants = 120

○ Teams = (120 ÷ 12) = 10

Calculation:

- 10 Teams x 20 Games = 200 ÷ 2 (.5 Event) = 100 Game Events
- 10 Teams x 2 Practices = 20 Practice Events

□ 100 Game Events + 20 Practice Events = 120 Events

2007
Census

Given:

➤ Registrants = 99

○ Census Data

1990 pop = 19,757

2000 pop = 21,131

○ Population increase $(21,131 - 19,757) = 1,374$ over 10 years

○ Percent of increase $(1,374 \div 19,757) = 6.95\%$ over 10 years

Calculation:

○ 1 year growth $(6.95 \div 10 \text{ years}) = .695\%$ over 1 year

○ 4 year growth $(.695 \times 4 \text{ years}) = 2.78\%$ over 4 years

○ Registrant increase $(96 \times 1.0278\%) = 98.7$

➤ Teams = $(98.7 \div 12) = 8.23$ or 9 Teams

• 9 Teams x 20 Games = 180 ÷ 2 (.5 Event) = 90 Game Events

• 9 Teams x 2 Practices = 18 Practice Events

□ 90 Game Events + 18 Practice Events = 108 Events

2014
League

Given:

➤ Registrants = 120

○ Teams = $(120 \div 12) = 10$

Calculation:

• 10 Teams x 20 Games = 200 ÷ 2 (.5 Event) = 100 Game Events

• 10 Teams x 2 Practices = 20 Practice Events

□ 100 Game Events + 20 Practice Events = 120 Events

2014
Census

Given:

➤ Registrants = 104

○ Census Data

1990 pop = 19,757

2000 pop = 21,131

○ Population increase (21,131-19,757) = 1,374 over 10 years

○ Percent of increase (1,374 ÷ 19,757) = 6.95% over 10 years

Calculation:

○ 1 year growth (6.95 ÷ 10 years) = .695% over 1 year

○ 11 year growth (.695 x 11 years) = 7.65% over 11 years

○ Registrant increase (96 x 1.0765%) = 103.3

➤ Teams = (103.3 ÷ 12) = 8.6 or 9 Teams

• 9 Teams x 20 Games = 180 ÷ 2 (.5 Event) = 90 Game Events

• 9 Teams x 2 Practices = 18 Practice Events

□ 90 Game Events + 18 Practice Events = 108 Events

SUMMIT SOFTBALL/MEN'S FAST/SLOW PITCH (SPRING) (Cont.)

Season	April	22 weekdays	8 weekend days
	May	21 weekdays	10 weekend days
	June	22 weekdays	8 weekend days
		65	26
		+	=
			91 days

91 playdays - 48 rain/recovery days = **43 playable days**

(65 - 35 rain = 30 days; 26 - 13 rain = 13 days)

30 available weekdays (6pm - 8pm) x 1 (2 hr.) events/day = 30 events
 0 available weekend days (No Saturdays) = +0 events
 0 available weekend days (No Sundays) = +0 events
 total possible events = **30 events**

EVENTS DRIVEN APPROACH: (DATA)

Possible events per league calculations:

SUMMIT JUNIOR SOFTBALL GIRLS (SPRING)

2003
League

Given:

- Registrants = 126
- Teams = 9
- Home games = 10
- Practices = 20
- No travel leagues

Calculation:

- No travel leagues = Games = .5 Event, Practices = 1 Event
- Players per team ($126 \div 9$) = 14

- 9 Teams x 10 Games = 90 ÷ 2 (.5 Event) = 45 Game Events
- 9 Teams x 20 Practices = 180 Practice Events

□ 45 Game Events + 180 Practice Events = 225 Events

2007
League

Given:

- Registrants = 139

- Teams = ($139 \div 14$) = 9.9 or 10

Calculation:

- 10 Teams x 10 Games = 100 ÷ 2 (.5 Event) = 50 Game Events
- 10 Teams x 20 Practices = 200 Practice Events

□ 50 Game Events + 200 Practice Events = 250 Events

2007
Census

Given:

➤ Registrants = 130

○ Census Data

1990 pop = 19,757

2000 pop = 21,131

○ Population increase (21,131-19,757) = 1,374 over 10 years

○ Percent of increase (1,374 ÷ 19,757) = 6.95% over 10 years

Calculation:

○ 1 year growth (6.95 ÷ 10 years) = .695% over 1 year

○ 4 year growth (.695 x 4 years) = 2.78% over 4 years

○ Registrant increase (126 x 1.0278%) = 129.5

➤ Teams = (129.5 ÷ 14) = 9.3 or 9 Teams

• 9 Teams x 10 Games = 90 ÷ 2 (.5 Event) = 45 Game Events

• 9 Teams x 20 Practices = 180 Practice Events

□ 45 Game Events + 180 Practice Events = 225 Events

2014
League

Given:

➤ Registrants = 151

○ Teams = (151 ÷ 14) = 10.79 or 11

Calculation:

• 11 Teams x 10 Games = 110 ÷ 2 (.5 Event) = 55 Game Events

• 11 Teams x 20 Practices = 220 Practice Events

□ 55 Game Events + 220 Practice Events = 275 Events

SUMMIT JUNIOR SOFTBALL GIRLS (SPRING) (Cont.)

2014
Census

Given:

➤ Registrants = 136

○ Census Data

1990 pop = 19,757

2000 pop = 21,131

○ Population increase (21,131-19,757) = 1,374 over 10 years

○ Percent of increase (1,374 ÷ 19,757) = 6.95% over 10 years

Calculation:

○ 1 year growth (6.95 ÷ 10 years) = .695% over 1 year

○ 11 year growth (.695 x 11 years) = 7.65% over 11 years

○ Registrant increase (126 x 1.0765%) = 135.6

➤ Teams = (135.6 ÷ 14) = 9.7 or 10 Teams

• 10 Teams x 10 Games = 100 ÷ 2 (.5 Event) = 50 Game Events

• 10 Teams x 20 Practices = 200 Practice Events

□ 50 Game Events + 200 Practice Events = 250 Events

SUMMIT JUNIOR SOFTBALL GIRLS (SPRING) (Cont.)

Season	April	22 weekdays	8 weekend days	
	May	21 weekdays	10 weekend days	
	June	22 weekdays	8 weekend days	
		65	26	= 91 days

91 playdays - 48 rain/recovery days = 43 playable days

(65 - 35 rain = 30 days; 26 - 13 rain = 13 days)

30 available weekdays (6pm - 8pm) x 1 (2 hr.) events/day = 30 events
 7 available weekend days (Sat. 9am - 8pm)
 x 5.5 (2 hr.) events/day = +38.5 events
 (No Sundays)
 +0.0 events

 68.5 events
 say 69 events

EVENTS DRIVEN APPROACH: (DATA)

Possible events per league calculations:

2003 SUMMIT MIDDLE SCHOOL GIRLS SOFTBALL (SPRING)

Given:

- Teams = 1
- Home games = 20 per team
- Practices = 30 per team

Calculation:

- Travel league: Games = 1 Event, Practice = 1 Event
- 1 Team x 20 Games = 20 Game Events
- 1 Team x 30 Practices = 30 Practice Events
- 20 Game Events + 30 Practice Events = 50 Events

2007: No change (1 Team)

2014: No change (1 Team)

SUMMIT MIDDLE SCHOOL GIRLS SOFTBALL (SPRING) (Cont.)

Season	April	22 weekdays	8 weekend days
	May	21 weekdays	10 weekend days
	June	22 weekdays	8 weekend days
		65	26
		+	=
			91 days

91 playdays - 48 rain/recovery days = **43 playable days**

(65 - 35 rain = 30 days; 26 - 13 rain = 13 days)

30 available weekdays (4pm - 8pm) x 2 (2 hr.) events/day = 60 events
 0 available weekend days (No Saturdays)(No Sundays) = +0 events
60 events

total possible events =

EVENTS DRIVEN APPROACH: (DATA)

Possible events per league calculations:

2003
league
SUMMIT HIGH SCHOOL GIRLS SOFTBALL (SPRING)

Given:

- Teams = 2
- Home games = 10 per team
- Practices = 50 per team

Calculation:

- Travel league: Games = 1 Event, Practice = 1 Event
- 2 Teams x 10 Games = 20 Game Events
- 2 Teams x 50 Practices = 100 Practice Events
- **20 Game Events + 100 Practice Events = 120 Events**

2007:

No change (2 Teams)

2014:

No change (2 Teams)

SUMMIT HIGH SCHOOL GIRLS SOFTBALL (SPRING) (Cont.)

Season	April	22 weekdays	8 weekend days	
	May	21 weekdays	10 weekend days	
	June	22 weekdays	8 weekend days	
		65	26	=
		+		
				91 days

91 playdays - 48 rain/recovery days = 43 playable days

(65 - 35 rain = 30 days; 26 - 13 rain = 13 days)

30 available weekdays (4pm - 8pm) x 2 (2 hr.) events/day = 60 events
 7 available weekend days (Sat. 9am - 8pm)(No Sundays)
 x 5.5 (2 hr.) events/day = +38.5 events
 = 98.5 events
 say 98 events

EVENTS DRIVEN APPROACH: (DATA)

Possible events per league calculations:

SUMMIT JUNIOR BASEBALL (SPRING)

2003
League

Given:

- Registrants = 520
- Teams = 43
- Home games = 10
- Practices = 20
- No travel leagues

Calculation:

- No travel leagues = Games = .5 Event, Practices = 1 Event
- Players per team (520 ÷ 43) = 12

- 43 Teams x 10 Games = 430 ÷ 2 (.5 Event) = 215 Game Events
- 43 Teams x 20 Practices = 860 Practice Events

□ 215 Game Events + 860 Practice Events = 1,075 Events

2007
League

Given:

- Registrants = 572

- Teams = (572 ÷ 12) = 47.6 or 48 Teams

Calculation:

- 48 Teams x 10 Games = 480 ÷ 2 (.5 Event) = 240 Game Events
- 48 Teams x 20 Practices = 960 Practice Events

□ 240 Game Events + 960 Practice Events = 1,200 Events

SUMMIT JUNIOR BASEBALL (SPRING) (Cont.)

2007
Census

Given:

➤ Registrants = 534

○ Census Data

1990 pop = 19,757

2000 pop = 21,131

○ Population increase (21,131-19,757) = 1,374 over 10 years

○ Percent of increase (1,374 ÷ 19,757) = 6.95% over 10 years

Calculation:

○ 1 year growth (6.95 ÷ 10 years) = .695% over 1 year

○ 4 year growth (.695 x 4 years) = 2.78% over 4 years

○ Registrant increase (520x 1.0278%) = 534

➤ Teams = (534 ÷ 12) = 44.5 or 45 Teams

• 45 Teams x 10 Games = 450 ÷ 2 (.5 Event) = 225 Game Events

• 45 Teams x 20 Practices = 900 Practice Events

□ 225 Game Events + 900 Practice Events = 1,125 Events

2014
League

Given:

➤ Registrants = 624

○ Teams = (624 ÷ 12) = 52 Teams

Calculation:

• 52 Teams x 10 Games = 520 ÷ 2 (.5 Event) = 260 Game Events

• 52 Teams x 20 Practices = 1,040 Practice Events

□ 260 Game Events + 1,040 Practice Events = 1,300 Events

SUMMIT JUNIOR BASEBALL (SPRING) (Cont.)

2014
Census

Given:

➤ Registrants = 560

○ Census Data

1990 pop = 19,757

2000 pop = 21,131

○ Population increase (21,131-19,757) = 1,374 over 10 years

○ Percent of increase (1,374 ÷ 19,757) = 6.95% over 10 years

Calculation:

○ 1 year growth (6.95 ÷ 10 years) = .695% over 1 year

○ 11 year growth (.695 x 11 years) = 7.65% over 11 years

○ Registrant increase (520 x 1.0765%) = 559.8

➤ Teams = (559.8 ÷ 12) = 46.65 or 47 Teams

• 47 Teams x 10 Games = 470 ÷ 2 (.5 Event) = 235 Game Events

• 47 Teams x 20 Practices = 940 Practice Events

□ 235 Game Events + 940 Practice Events = 1,175 Events

SUMMIT JUNIOR BASEBALL (SPRING) (Cont.)

Season	April	22 weekdays	65	+	26	=	91 days
	May	21 weekdays					8 weekend days
	June	22 weekdays					10 weekend days
							8 weekend days

91 playdays - 48 rain/recovery days = 43 playable days

(65 - 35 rain = 30 days; 26 - 13 rain = 13 days)

30 available weekdays (6pm - 8pm) x 1 (2 hr.) events/day = 30 events

13 available weekend days

(Sat. 9am - 8 pm)(Sun. 12pm - 8pm)

x 4.75 (2 hr.) events/day = +61.75 events

total possible events = 91.75 events

say 92 events

EVENTS DRIVEN APPROACH: (DATA)

Possible events per league calculations:

SUMMIT JUNIOR T-BALL (SPRING)

2003
League

Given:

- Registrants = 268
- Teams = 22
- Home games = 10
- Practices = 20
- No travel leagues

Calculation:

- No travel leagues = Games = .5 Event, Practices = 1 Event
- Players per team (268 ÷ 22) = 12

- 22 Teams x 10 Games = 220 ÷ 2 (.5 Event) = 110 Game Events
- 22 Teams x 20 Practices = 440 Practice Events

□ **110 Game Events + 440 Practice Events = 550 Events**

2007
League

Given:

- Registrants = 295

- Teams = (295 ÷ 12) = 24.5 or 25 Teams

Calculation:

- 25 Teams x 10 Games = 250 ÷ 2 (.5 Event) = 125 Game Events
- 25 Teams x 20 Practices = 500 Practice Events

□ **125 Game Events + 500 Practice Events = 625 Events**

2007
Census

Given:

➤ Registrants = 276

○ Census Data

1990 pop = 19,757

2000 pop = 21,131

○ Population increase (21,131-19,757) = 1,374 over 10 years

○ Percent of increase (1,374 ÷ 19,757) = 6.95% over 10 years

Calculation:

○ 1 year growth (6.95 ÷ 10 years) = .695% over 1 year

○ 4 year growth (.695 x 4 years) = 2.78% over 4 years

○ Registrant increase (268 x 1.0278%) = 275.5

➤ Teams = (275.5 ÷ 12) = 22.9 or 23 Teams

• 23 Teams x 10 Games = 230 ÷ 2 (.5 Event) = 115 Game Events

• 23 Teams x 20 Practices = 460 Practice Events

□ 115 Game Events + 460 Practice Events = 575 Events

2014
League

Given:

➤ Registrants = 322

○ Teams = (322 ÷ 12) = 26.8 or 27 Teams

Calculation:

• 27 Teams x 10 Games = 270 ÷ 2 (.5 Event) = 135 Game Events

• 27 Teams x 20 Practices = 540 Practice Events

□ 135 Game Events + 540 Practice Events = 675 Events

SUMMIT JUNIOR T-BALL (SPRING) (Cont.)

2014
Census

Given:

➤ Registrants = 289

○ Census Data

1990 pop = 19,757

2000 pop = 21,131

○ Population increase $(21,131 - 19,757) = 1,374$ over 10 years

○ Percent of increase $(1,374 \div 19,757) = 6.95\%$ over 10 years

Calculation:

○ 1 year growth $(6.95 \div 10 \text{ years}) = .695\%$ over 1 year

○ 11 year growth $(.695 \times 11 \text{ years}) = 7.65\%$ over 11 years

○ Registrant increase $(268 \times 1.0765\%) = 288.5$

➤ Teams = $(288.5 \div 12) = 24$ Teams

• 24 Teams x 10 Games = 240 ÷ 2 (.5 Event) = 120 Game Events

• 24 Teams x 20 Practices = 480 Practice Events

□ 120 Game Events + 480 Practice Events = 600 Events

SUMMIT JUNIOR T-BALL (SPRING) (Cont.)

Season	April	22 weekdays	+	65	
	May	21 weekdays			
	June	22 weekdays			
		8 weekend days			
		10 weekend days			
		8 weekend days			
				26	=
					91 days

91 playdays - 48 rain/recovery days = 43 playable days

(65 - 35 rain = 30 days; 26 - 13 rain = 13 days)

30 available weekdays (6pm - 8pm) x 2 (1 hr.) events/day = 60 events
 Weekend Days (No Saturday or Sunday) = +0 events
 total possible events = 60 events
 say 60 events

EVENTS DRIVEN APPROACH: (DATA)

Possible events per league calculations:

SUMMIT HIGH SCHOOL BASEBALL (SPRING)

2003
League

Given:

- Teams = 3
- Home games = 10 per team
- Practices = 50 per team

Calculation:

- Travel league = Games = 1 Event, Practice = 1 Event
- 3 Teams x 10 Games = 30 Game Events
- 3 Teams x 50 Practices = 150 Practice Events
- 30 Game Events + 150 Practice Events = 180 Events

2007: No change (3 Teams)

2014: No change (3 Teams)

SUMMIT HIGH SCHOOL BASEBALL (SPRING) (Cont.)

Season	April	22 weekdays	8 weekend days
	May	21 weekdays	10 weekend days
	June	22 weekdays	8 weekend days
		65	26
		+	=
			91 days

91 playdays - 48 rain/recovery days = **43 playable days**

(65 - 35 rain = 30 days; 26 - 13 rain = 13 days)

30 available weekdays (4pm - 8pm) x 2 (2 hr.) events/day = 60 events
 7 available weekend days
 (Sat. 9am - 8pm)(No Sundays)
 x 5.5 (2 hr.) events/day = +38.5 events
 = 98.5 events
 say **99 events**

EVENTS DRIVEN APPROACH: (DATA)

Possible events per league calculations:

2003
League
SUMMIT SOCCER CLUB , U 11 and Under (SPRING)

Given:

- Registrants = 225
- Teams = 16
- Home games = 5
- Practices = 33
- Travel leagues

Calculation:

- Travel leagues = Games = 1 Event, Practices = .5 Event
- Players per team ($225 \div 16$) = 14
- 16 Teams x 5 Games = 80 Game Events
- 16 Teams x 33 Practices = 528 $\div$ 2 (.5 Event) = 264 Practice Events

□ 80 Game Events + 264 Practice Events = 344 Events

2007
League

Given:

- Registrants = 248
- Teams = ($248 \div 14$) = 17.7 or 18 Teams

Calculation:

- 18 Teams x 5 Games = 90 Game Events
 - 18 Teams x 33 Practices = 594 $\div$ 2 (.5 Event) = 297 Practice Events
- 90 Game Events + 297 Practice Events = 387 Events

**2007
Census**

Given:

➤ Registrants = 232

○ Census Data

1990 pop = 19,757

2000 pop = 21,131

○ Population increase (21,131-19,757) = 1,374 over 10 years

○ Percent of increase (1,374 ÷ 19,757) = 6.95% over 10 years

Calculation:

○ 1 year growth (6.95 ÷ 10 years) = .695% over 1 year

○ 4 year growth (.695 x 4 years) = 2.78% over 4 years

○ Registrant increase (225 x 1.0278%) = 231.26

➤ Teams = (231.26 ÷ 14) = 16.5 or 17 Teams

• 17 Teams x 5 Games = 85 Game Events

• 17 Teams x 33 Practices = 561 ÷ 2 (.5 Event) = 280.5 Practice Events

□ 85 Game Events + 280.5 Practice Events = 365.5 or 366 Events

**2014
League**

Given:

➤ Registrants = 270

○ Teams = (270 ÷ 14) = 19.3 or 20 Teams

Calculation:

• 20 Teams x 5 Games = 100 Game Events

• 20 Teams x 33 Practices = 666 ÷ 2 (.5 Event) = 333 Practice Events

□ 100 Game Events + 333 Practice Events = 433 Events

2014
Census

Given:

➤ Registrants = 243

- Census Data
 - 1990 pop = 19,757
 - 2000 pop = 21,131
- Population increase $(21,131 - 19,757) = 1,374$ over 10 years
- Percent of increase $(1,374 \div 19,757) = 6.95\%$ over 10 years

Calculation:

- 1 year growth $(6.95 \div 10 \text{ years}) = .695\%$ over 1 year
- 11 year growth $(.695 \times 11 \text{ years}) = 7.65\%$ over 11 years
- Registrant increase $(225 \times 1.0765\%) = 242.2$
- Teams = $(242.2 \div 14) = 17.3$ or 18 Teams
- 18 Teams x 5 Games = 90 Game Events
- 18 Teams x 33 Practices = 594 $\div 2 (.5 \text{ Event}) = 297$ Practice Events
- 90 Game Events + 297 Practice Events = 387 Events

EVENTS DRIVEN APPROACH: (DATA)

Possible events per league calculations:

2003 League
SUMMIT SOCCER CLUB, U 11 and Over (SPRING)

Given:

- Registrants = 240
- Teams = 15
- Home games = 5
- Practices = 33
- Travel leagues

Calculation:

- Travel leagues = Games = 1 Event, Practices = .5 Event
- Players per team ($240 \div 15$) = 16
- 15 Teams x 5 Games = 75 Game Events
- 15 Teams x 33 Practices = 495 $\div$ 2 (.5 Event) = 247.5 Practice Events

□ **75 Game Events + 247.5 Practice Events = 322.5 or 323 Events**

2007 League

Given:

- Registrants = 264

- Teams = ($264 \div 16$) = 16.5 or 17 Teams

Calculation:

- 17 Teams x 5 Games = 85 Game Events
 - 17 Teams x 33 Practices = 561 $\div$ 2 (.5 Event) = 280.5 Practice Events
- **85 Game Events + 280.5 Practice Events = 365.5 or 366 Events**

**2007
Census**

Given:

➤ Registrants = 247

○ Census Data

1990 pop = 19,757

2000 pop = 21,131

○ Population increase $(21,131 - 19,757) = 1,374$ over 10 years

○ Percent of increase $(1,374 \div 19,757) = 6.95\%$ over 10 years

Calculation:

○ 1 year growth $(6.95 \div 10 \text{ years}) = .695\%$ over 1 year

○ 4 year growth $(.695 \times 4 \text{ years}) = 2.78\%$ over 4 years

○ Registrant increase $(240 \times 1.0278\%) = 246.7$

➤ Teams = $(246.7 \div 16) = 15.4$ or 16 Teams

• 16 Teams x 5 Games = 80 Game Events

• 16 Teams x 33 Practices = 528 $\div 2 (.5 \text{ Event}) = 264$ Practice Events

□ 80 Game Events + 264 Practice Events = 344 Events

**2014
League**

Given:

➤ Registrants = 288

○ Teams = $(288 \div 16) = 18$ Teams

Calculation:

• 18 Teams x 5 Games = 90 Game Events

• 18 Teams x 33 Practices = 594 $\div 2 (.5 \text{ Event}) = 297$ Practice Events

□ 90 Game Events + 297 Practice Events = 387 Events

2014
Census

Given:

➤ Registrants = 259

○ Census Data

1990 pop = 19,757
2000 pop = 21,131

○ Population increase (21,131-19,757) = 1,374 over 10 years
○ Percent of increase (1,374 ÷ 19,757) = 6.95% over 10 years

Calculation:

○ 1 year growth (6.95 ÷ 10 years) = .695% over 1 year
○ 11 year growth (.695 x 11 years) = 7.65% over 11 years
○ Registrant increase (240 x 1.0765%) = 258.4

➤ Teams = (258.4 ÷ 16) = 16.2 or 17 Teams

• 17 Teams x 5 Games = 85 Game Events
• 17 Teams x 33 Practices = 561 ÷ 2 (.5 Event) = 280.5 Practice Events
□ 85 Game Events + 280.5 Practice Events = 365.5 or 366 Events

SUMMIT SOCCER CLUB (SPRING) (Cont.)

Season				
March	23	weekdays	88	
April	22	weekdays	+	
May	21	weekdays	34	=
June	22	weekdays	122	days
	8	weekend days		
	10	weekend days		
	8	weekend days		
	8	weekend days		

122 playdays - 67 rain/recovery days = 55 playable days

38 available weekdays (6pm - 8pm) x 1 (2 hr.) events/day =
 17 available weekend days
 (Sat. 9am - 8pm)(Sun. 12pm - 8pm)
 x 4.75 (2 hr.) events/day =
 118.75 events
 +80.75 events
 = 119 events
 say

Note:
 Games are played on Sunday only (League Data)
 Sun 12pm-8pm (8hrs) = 8hrs / 2hrs = 4 events per field
 17 weekend days / 2 = 8.5 Sundays (8.5 x 4) = 34 possible Sunday game events

Game Events:
 2003: 155 game events/34 possible game events = 4.5 or 5 fields minimum
 2007: (League) 180 game events/34 possible game events = 5.29 or 6 fields min.
 (Census) 165 game events/34 possible game events = 4.85 or 5 fields min.
 2014: (League) 195 game events/34 possible game events = 5.73 or 6 fields min.
 (Census) 175 game events/34 possible game events = 5.15 or 6 fields min.

EVENTS DRIVEN APPROACH: (DATA)

Possible events per league calculations:

YMCA SOCCER (SPRING)

2003
League

Given:

- Registrants = 850
- Teams = 33
- Home games = 10
- Practices = 10
- Travel leagues

Calculation:

- Travel leagues = Games = 1 Event, Practices = .5 Event
- Players per team $(850 \div 33) = 25.7$ or 26

* 40% Discount = $(850 \times 60\%) = 510$ / 26 players = 19.6 or 20 teams

- 20 Teams x 10 Games = 200 Game Events
- 20 Teams x 10 Practices = 200 $\div 2$ (.5 Event) = 100 Practice Events

□ 200 Game Events + 100 Practice Events = 300 Events

2007
League

Given:

- Registrants = 561

* 40% Discount = $(935 \times 60\%) = 561$ / 26 players = 21.5 or 22 teams

Calculation:

- 22 Teams x 10 Games = 220 Game Events
 - 22 Teams x 10 Practices = 220 $\div 2$ (.5 Event) = 110 Practice Events
- 220 Game Events + 110 Practice Events = 330 Events

2007
Census

Given:

➤ Registrants = 525

- Census Data
- 1990 pop = 19,757
- 2000 pop = 21,131
- Population increase (21,131-19,757) = 1,374 over 10 years
- Percent of increase (1,374 ÷ 19,757) = 6.95% over 10 years

Calculation:

- 1 year growth (6.95 ÷ 10 years) = .695% over 1 year
- 4 year growth (.695 x 4 years) = 2.78% over 4 years
- Registrant increase (850 x 1.0278%) = 873.63

* 40% Discount = (873.63 x 60%) = 524.2 / 26 players = 20.16 or 21 teams

- 21 Teams x 10 Games = 210 Game Events
- 21 Teams x 10 Practices = 210 ÷ 2 (.5 Event) = 105 Practice Events

□ 210 Game Events + 105 Practice Events = 315 Events

2014
League

Given:

➤ Registrants = 612

* 40% Discount = (1020 x 60%) = 612 / 26 players = 23.54 or 24 teams

Calculation:

- 24 Teams x 10 Games = 240 Game Events
- 24 Teams x 10 Practices = 240 ÷ 2 (.5 Event) = 120 Practice Events

□ 240 Game Events + 120 Practice Events = 360 Events

YMCA SOCCER (SPRING) (Cont.)

2014
Census

Given:

➤ Registrants = 549

- Census Data
 - 1990 pop = 19,757
 - 2000 pop = 21,131
- Population increase (21,131-19,757) = 1,374 over 10 years
- Percent of increase (1,374 ÷ 19,757) = 6.95% over 10 years

Calculation:

- 1 year growth (6.95 ÷ 10 years) = .695% over 1 year
- 11 year growth (.695 x 11 years) = 7.65% over 11 years
- Registrant increase (850 x 1.0765%) = 915

* 40% Discount = (915 x 60%) = 549 / 26 players = 21.1 or 22 teams

- 22 Teams x 10 Games = 220 Game Events
- 22 Teams x 10 Practices = 220 ÷ 2 (.5 Event) = 110 Practice Events
- 220 Game Events + 110 Practice Events = 330 Events

YMCA SOCCER (SPRING) (Cont.)

Season	March	April	May	June
	23 weekdays	22 weekdays	21 weekdays	22 weekdays
	8 weekend days	8 weekend days	10 weekend days	8 weekend days
	88	+	34	=
	122 days			

122 playdays - 67 rain/recovery days = 55 playable days

38 available weekdays (6pm - 8pm) x 1 (2 hr.) events/day = 38 events
 8 available weekend days
 (No Saturdays)(Sun. 12pm - 8pm)
 x 4 (2 hr.) events/day = +32 events
total possible events = 70 events

Note:

Games are played on Sunday only (League Data)
 Sun 12pm-8pm (8hrs) = 4 events per field
 8 weekend days x 4 (2 hr.) events/day = 32 possible Sunday game events

Game Events:

2003: 200 game events/32 possible game events = 6.25 or 7 fields minimum
 2007: (League) 220 game events/32 possible game events = 6.87 or 7 fields min.
 (Census) 210 game events/32 possible game events = 6.56 or 7 fields min.
 2014: (League) 240 game events/32 possible game events = 7.5 or 8 fields min.
 (Census) 220 game events/32 possible game events = 6.87 or 7 fields min.

EVENTS DRIVEN APPROACH: (DATA)

Possible events per league calculations:

2003
SUMMIT BOYS LACROSSE (SPRING)
League

Given:

- > Registrants = 314
- > Teams = 14
- > Home games = 5
- > Practices = 17
- > Travel leagues

Calculation:

- Travel leagues = Games = 1 Event, Practices = 1 Event
- Players per team $(314 \div 14) = 22$

- 14 Teams x 5 Games = 70 Events = 70 Game Events
- 14 Teams x 17 Practices = 238 Practice Events

□ 70 Game Events + 238 Practice Events = 308 Events

2007
League

Given:

> Registrants = 346

○ Teams = $(346 \div 22) = 15.73$ or 16

Calculation:

- 16 Teams x 5 Games = 80 Events = 80 Game Events
- 16 Teams x 17 Practices = 272 Practice Events

□ 80 Game Events + 272 Practice Events = 352 Events

SUMMIT BOYS LACROSSE (SPRING) (Cont.)

2007
Census

Given:

➤ Registrants = 323

○ Census Data

1990 pop = 19,757

2000 pop = 21,131

○ Population increase (21,131-19,757) = 1,374 over 10 years

○ Percent of increase (1,374 ÷ 19,757) = 6.95% over 10 years

Calculation:

○ 1 year growth (6.95 ÷ 10 years) = .695% over 1 year

○ 4 year growth (.695 x 4 years) = 2.78% over 4 years

○ Registrant increase (314 x 1.0278%) = 322.7

➤ Teams = (322.7 ÷ 22) = 14.67 or 15 Teams

• 15 Teams x 5 Games = 75 Events = 75 Game Events

• 15 Teams x 17 Practices = 255 Practice Events

□ **75 Game Events + 255 Practice Events = 330 Events**

2014
League

Given:

➤ Registrants = 377

○ Teams = (377 ÷ 22) = 17.13 or 18

Calculation:

• 18 Teams x 5 Games = 90 Events = 90 Game Events

• 18 Teams x 17 Practices = 306 Practice Events

□ **90 Game Events + 306 Practice Events = 396 Events**

SUMMIT BOYS LACROSSE (SPRING) (Cont.)

2014
Census

Given:

➤ Registrants = 338

○ Census Data

1990 pop = 19,757

2000 pop = 21,131

○ Population increase (21,131-19,757) = 1,374 over 10 years

○ Percent of increase (1,374 ÷ 19,757) = 6.95% over 10 years

Calculation:

○ 1 year growth (6.95 ÷ 10 years) = .695% over 1 year

○ 11 year growth (.695 x 11 years) = 7.65% over 11 years

○ Registrant increase (314 x 1.0765%) = 338.02

➤ Teams = (338.02 ÷ 22) = 15.4 or 16 Teams

• 16 Teams x 5 Games = 80 Events = 80 Game Events

• 16 Teams x 17 Practices = 272 Practice Events

□ 80 Game Events + 272 Practice Events = 352 Events

SUMMIT BOYS LACROSSE (SPRING) (Cont.)

Season			
March	23 weekdays	88	+
April	22 weekdays	34	=
May	21 weekdays	122 days	
June	22 weekdays		
	8 weekend days		
	10 weekend days		
	8 weekend days		

122 playdays - 67 rain/recovery days = 55 playable days

38 available weekdays (6pm - 8pm) x 1 (2 hr.) event/day = 38 events
 17 weekend days (Sat. 9am - 8pm)(Sun. 12pm - 8pm)
 x 4.75 (2 hr.) events/day = 80.75 events
 total possible events = 118.75 events
 say 119 events

NOTE:

Games are played on Sunday only (League Data)
 Sun 12pm-8pm (8hrs) = 8hrs / 2hrs = 4 events per field
 17 weekend days / 2 = 8.5 Sundays (8.5x4) = 34 possible Sunday game events

Game Events:

2003: 70 game events/34 possible game events = 1 field (2 fields)
 2007: (League) 80 game events/34 possible game events = 1.18 or 2 fields (2.35 or 3 fields)
 (Census) 75 game events/34 possible game events = 1.1 or 2 fields (2.2 or 3 fields)
 2014: (League) 90 game events/34 possible game events = 1.32 or 2 fields (2.64 or 3 fields)
 (Census) 80 game events/34 possible game events = 1.18 or 2 fields (2.35 or 3 fields)

EVENTS DRIVEN APPROACH: (DATA)

Possible events per league calculations:

2003
League
SUMMIT GIRLS LACROSSE (SPRING)

Given:

- Registrants = 290
- Teams = 10
- Home games = 5
- Practices = 17
- Travel leagues

Calculation:

- Travel leagues = Games = 1 Event, Practices = 1 Event
- Players per team $(290 \div 10) = 29$
- 10 Teams x 5 Games = 50 Events = 50 Game Events
- 10 Teams x 17 Practices = 170 Practice Events

□ 50 Game Events + 170 Practice Events = 220 Events

2007
League

Given:

- Registrants = 319
- Teams = $(319 \div 29) = 11$

Calculation:

- 11 Teams x 5 Games = 55 Events = 55 Game Events
- 11 Teams x 17 Practices = 187 Practice Events

□ 55 Game Events + 187 Practice Events = 242 Events

SUMMIT GIRLS LACROSSE (SPRING) (Cont.)

2007
Census

Given:

➤ Registrants = 299

○ Census Data

1990 pop = 19,757

2000 pop = 21,131

○ Population increase $(21,131 - 19,757) = 1,374$ over 10 years

○ Percent of increase $(1,374 \div 19,757) = 6.95\%$ over 10 years

Calculation:

○ 1 year growth $(6.95 \div 10 \text{ years}) = .695\%$ over 1 year

○ 4 year growth $(.695 \times 4 \text{ years}) = 2.78\%$ over 4 years

○ Registrant increase $(290 \times 1.0278\%) = 298.06$

➤ Teams = $(298.06 \div 29) = 10.3$ or 10 Teams

• 10 Teams x 5 Games = 50 Events = 50 Game Events

• 10 Teams x 17 Practices = 170 Practice Events

□ 50 Game Events + 170 Practice Events = 220 Events

2014
League

Given:

➤ Registrants = 348

○ Teams = $(348 \div 29) = 12$

Calculation:

• 12 Teams x 5 Games = 60 Events = 60 Game Events

• 12 Teams x 17 Practices = 204 Practice Events

□ 60 Game Events + 204 Practice Events = 264 Events

SUMMIT GIRLS LACROSSE (SPRING) (Cont.)

2014
Census

Given:

➤ Registrants = 313

- Census Data
 - 1990 pop = 19,757
 - 2000 pop = 21,131
- Population increase (21,131-19,757) = 1,374 over 10 years
- Percent of increase (1,374 ÷ 19,757) = 6.95% over 10 years

Calculation:

- 1 year growth (6.95 ÷ 10 years) = .695% over 1 year
- 11 year growth (.695 x 11 years) = 7.65% over 11 years
- Registrant increase (290 x 1.0765%) = 312.2
- Teams = (312.2 ÷ 29) = 10.8 or 11 Teams
- 11 Teams x 5 Games = 55 Events = 55 Game Events
- 11 Teams x 17 Practices = 187 Practice Events
- 55 Game Events + 187 Practice Events = 242 Events

Season	March	23 weekdays	88	+	34	=	122 days
	April	22 weekdays					8 weekend days
	May	21 weekdays					10 weekend days
	June	22 weekdays					8 weekend days

122 playdays - 67 rain/recovery days = 55 playable days

38 available weekdays (6pm - 8pm) x 1 (2 hr.) event/day = 38 events
 17 weekend days
 (Sat. 9am - 8pm)(Sun. 12pm - 8pm)
 x 4.75 (2 hr.) events/day = 80.75 events
 total possible events = 118.75 events
 say 119 events

NOTE:

Games are played on Sunday only (League Data)
 Sun 12pm-8pm (8hrs) = 8hrs / 2hrs = 4 events per field
 17 weekend days / 2 = 8.5 Sundays (8.5x4) = 34 possible Sunday game events

Game Events:

2003: 50 game events/34 possible game events = 0.73 or 1 field (1.47 or 2 fields)
 2007: (League) 55 game events/34 possible game events = 0.80 1 field (1.62 or 2 fields)
 (Census) 50 game events/34 possible game events = 0.73 or 1 field (1.47 or 2 fields)
 2014: (League) 60 game events/34 possible game events = 0.88 or 1 field (1.76 or 2 fields)
 (Census) 55 game events/34 possible game events = 0.80 or 1 field (1.62 or 2 fields)

EVENTS DRIVEN APPROACH: (DATA)

Possible events per league calculations:

2003
League
SUMMIT HIGH SCHOOL BOYS LACROSSE (SPRING)

Given:

- Teams = 3
- Home games = 10
- Practices = 42

Calculation:

- Travel leagues= Games = 1 Event, Practice = 1 Event
- 3 Teams x 10 Games = 30 Game Events
- 3 Teams x 42 Practices = 126 Practice Events
- 30 Game Events + 126 Practice Events = 156 Events

SUMMIT HIGH SCHOOL BOYS LACROSSE (SPRING) (Cont.)

Season	March	23 weekdays	8 weekend days
	April	22 weekdays	8 weekend days
	May	21 weekdays	10 weekend days
	June	22 weekdays	8 weekend days
		88	34
		+	=
		<u>122 days</u>	

122 playdays - 67 rain/recovery days = 55 playable days

38 available weekdays (4pm - 8pm) x 2 (2 hr.) events/day = 76 events
 8 available weekend days
 (Sat. 9am - 8pm)(No Sundays)
 x 5.5 (2 hr.) events/day = +44 events
 = 120 events
 total possible events

**SUMMIT
SUMMER
ATHLETIC LEAGUES**

EVENTS DRIVEN APPROACH: (DATA)

Possible events per league calculations:

SUMMIT JR. BASEBALL (SUMMER)

2003

Given:

- Registrants = 200
- Teams = 11
- Home games = 12
- Practices = 2
- No travel leagues

Calculation:

- No travel leagues = Games = .5 Event, Practices = 1 Event
- Players per team $(200 \div 11) = 18.18$ or 19

- 11 Teams x 12 Games = 132 ÷ 2 (.5 Event) = 66 Game Events
- 11 Teams x 2 Practices = 22 Practice Events

□ **66 Game Events + 22 Practice Events = 88 Events**

2007
League

Given:

➤ Registrants = 220

○ Teams = $(220 \div 19) = 11.6$ or 12

Calculation:

- 12 Teams x 12 Games = 144 ÷ 2 (.5 Event) = 72 Game Events
- 12 Teams x 2 Practices = 24 Practice Events

□ **72 Game Events + 24 Practice Events = 96 Events**

2007
Census

Given:

➤ Registrants = 206

○ Census Data

1990 pop = 19,757

2000 pop = 21,131

○ Population increase (21,131-19,757) = 1,374 over 10 years

○ Percent of increase (1,374 ÷ 19,757) = 6.95% over 10 years

Calculation:

○ 1 year growth (6.95 ÷ 10 years) = .695% over 1 year

○ 4 year growth (.695 x 4 years) = 2.78% over 4 years

○ Registrant increase (200 x 1.0278%) = 205.6

➤ Teams = (205.6 ÷ 19) = 10.8 or 11 Teams

• 11 Teams x 12 Games = 132 ÷ 2 (.5 Event) = 66 Game Events

• 11 Teams x 2 Practices = 22 Practice Events

□ **66 Game Events + 22 Practice Events = 88 Events**

2014
League

Given:

➤ Registrants = 240

○ Teams = (240 ÷ 19) = 12.6 or 13

Calculation:

• 13 Teams x 12 Games = 156 ÷ 2 (.5 Event) = 78 Game Events

• 13 Teams x 2 Practices = 26 Practice Events

□ **78 Game Events + 26 Practice Events = 104 Events**

2014
Census

Given:

➤ Registrants = 216

○ Census Data

1990 pop = 19,757

2000 pop = 21,131

○ Population increase (21,131-19,757) = 1,374 over 10 years

○ Percent of increase (1,374 ÷ 19,757) = 6.95% over 10 years

Calculation:

○ 1 year growth (6.95 ÷ 10 years) = .695% over 1 year

○ 11 year growth (.695 x 11 years) = 7.65% over 11 years

○ Registrant increase (200 x 1.0765%) = 215.3

➤ Teams = (215.3 ÷ 19) = 11.3 or 12 Teams

• 12 Teams x 12 Games = 144 ÷ 2 (.5 Event) = 72 Game Events

• 12 Teams x 2 Practices = 24 Practice Events

□ 72 Game Events + 24 Practice Events = 96 Events

SUMMIT JR. BASEBALL (SUMMER) (Cont.)

Season	23 June	5 weekdays	2 weekend days
	July	21 weekdays	10 weekend days
	7 August	5 weekdays	2 weekend days
		31	14
		+	
		45 days	
45 playdays - 20 rain/recovery days = 25 playable days			
18 available weekdays (6pm - 8pm) x 1 (2 hr.) events/day =			
7 available weekend days			
(Sat. 9am - 8pm)(Sun. 12pm - 8pm)			
x 4.75 (2 hr.) events/day =			
		+33.25 events	
		51.25 events	
		=	
		say	
		51 events	

EVENTS DRIVEN APPROACH: (DATA)

Possible events per league calculations:

SUMMIT LEGION BASEBALL (SUMMER)

**2003
League**

Given:

- Teams = 2
- Home games = 15 per team
- Practices = 3 per team

Calculation:

- Travel league = Games = 1 Event, Practice = 1 Event
- 2 Teams x 15 Games = 30 Game Events
- 2 Teams x 3 Practices = 6 Practice Events
- 30 Game Events + 6 Practice Events = 36 Events

2007: No change (2 Teams)
2014: No change (2 Teams)

SUMMIT LEGION BASEBALL (SUMMER) (Cont.)

Season	23 June	5 weekdays	2 weekend days	
	July	21 weekdays	10 weekend days	
	7 August	5 weekdays	2 weekend days	
		31	+	14
		45 days		
		=		
		45 days		
		=		
		18 events		
		=		
		51.25 events		
		+ 33.25 events		
		51 events		
		say		

45 playdays - 20 rain/recovery days = 25 playable days

18 available weekdays (6pm - 8pm) x 1 (2 hr.) events/day =

7 available weekend days

(Sat. 9am - 8pm)(Sun. 12pm - 8pm)

x 4.75 (2 hr.) events/day =

total possible events =

say

51 events

**SUMMIT
FALL
ATHLETIC LEAGUES**

EVENTS DRIVEN APPROACH: (DATA)

Possible events per league calculations:

RECREATION SOCCER (FALL)

**2003
League**

Given:

- Registrants = 262
- Teams = 16
- Home games = 5
- Practices = 10
- No travel leagues

Calculation:

- No travel leagues = Games = .5 Event, Practices = .5 Event
- Players per team ($262 \div 16 = 16.37$) = 16
- 16 Teams x 5 Games = 80 ÷ 2 (.5 Event) = 40 Game Events
- 16 Teams x 10 Practices = 160 ÷ 2 (.5 Event) = 80 Practice Events
- 40 Game Events + 80 Practice Events = 120 Events

**2007
League**

Given:

- Registrants = 316
- Teams = ($316 \div 16 = 19.75$) = 20

Calculation:

- 20 Teams x 5 Games = 100 ÷ 2 (.5 Event) = 50 Game Events
- 20 Teams x 10 Practices = 200 ÷ 2 (.5 Event) = 100 Practice Events
- 50 Game Events + 100 Practice Events = 150 Events

RECREATION SOCCER (FALL) (Cont.)

2007
Census

Given:

➤ Registrants = 270

○ Census Data

1990 pop = 19,757

2000 pop = 21,131

○ Population increase (21,131-19,757) = 1,374 over 10 years

○ Percent of increase (1,374 ÷ 19,757) = 6.95% over 10 years

Calculation:

○ 1 year growth (6.95 ÷ 10 years) = .695% over 1 year

○ 4 year growth (.695 x 4 years) = 2.78% over 4 years

○ Registrant increase (262 x 1.0278%) = 269.3

➤ Teams = (269.3 ÷ 16) = 16.8 or 17 Teams

• 17 Teams x 5 Games = 85 ÷ 2 (.5 Event) = 42.5 Game Events

• 17 Teams x 10 Practices = 170 ÷ 2 (.5 Event) = 85 Practice Events

□ 42.5 Game Events + 85 Practice Events = 127.5 or 128 Events

2014
League

Given:

➤ Registrants = 316

○ Teams = (316 ÷ 16 = 19.75) = 20

Calculation:

• 20 Teams x 5 Games = 100 ÷ 2 (.5 Event) = 50 Game Events

• 20 Teams x 10 Practices = 200 ÷ 2 (.5 Event) = 100 Practice Events

□ 50 Game Events + 100 Practice Events = 150 Events

RECREATION SOCCER (FALL) (Cont.)

2014
Census

Given:

➤ Registrants = 283

- Census Data
 - 1990 pop = 19,757
 - 2000 pop = 21,131
- Population increase $(21,131 - 19,757) = 1,374$ over 10 years
- Percent of increase $(1,374 \div 19,757) = 6.95\%$ over 10 years

Calculation:

- 1 year growth $(6.95 \div 10 \text{ years}) = .695\%$ over 1 year
- 11 year growth $(.695 \times 11 \text{ years}) = 7.65\%$ over 11 years
- Registrant increase $(262 \times 1.0765\%) = 282.04$
- Teams = $(282.04 \div 16) = 17.6$ or 18 Teams

- 18 Teams x 5 Games = 90 ÷ 2 (.5 Event) = 45 Game Events
- 18 Teams x 10 Practices = 180 ÷ 2 (.5 Event) = 90 Practice Events
- 45 Game Events + 90 Practice Events = 135 Events

RECREATION SOCCER (FALL) (Cont)

Season		Sept	Oct	Nov
	22 weekend days	21 weekend days	22 weekdays	22 weekdays
	8 weekend days	10 weekend days	8 weekend days	8 weekend days
	91 days	26	65	26
	=	+	=	91 days

91 playable days = 40 rain/recovery days - 51 playable days

38 available weekdays (6pm - 8pm) x 1 (2 hr.) events/day = 38 events
 7 available weekend days
 (Sat. 9am - 8pm)(No Sundays)
 x 5.5 (2 hr.) events/day = +38.5 events
 total possible events = 76.5 events
 say 77 events

Note:

Games are played on Saturday only (League Data)
 Sat. 9am-8pm (1 hrs) = 1 hrs / 2hrs = 5.5 events per field
 13 weekend days/2 = 7 Saturdays (7x5.5) = 38 possible Saturday game events

Game Events:

2003: 40 game events/38 possible game events = 1 field minimum
 2007: (League) 50 game events/38 possible game events = 1.31 or 2 fields min.
 (Census) 42.5 game events/38 possible game events = 1.12 or 2 fields min.
 2014: (League) 50 game events/38 possible game events = 1.31 or 2 fields min.
 (Census) 45 game events/38 possible game events = 1.18 or 2 fields min.

EVENTS DRIVEN APPROACH: (DATA)

Possible events per league calculations:

2003
League
SUMMIT SOCCER CLUB , U 11 and Under (FALL)

Given:

- Registrants = 195
- Teams = 14
- Home games = 5
- Practices = 33
- Travel leagues

Calculation:

- Travel leagues = Games = 1 Event, Practices = .5 Event
- Players per team (195 ÷ 14) = 14
- 14 Teams x 5 Games = 70 Game Events
- 14 Teams x 33 Practices = 462 ÷ 2 (.5 Event) = 231 Practice Events
- 70 Game Events + 231 Practice Events = 301 Events

2007
League

Given:

- Registrants = 215
- Teams = (215 ÷ 14) = 15.4 or 16 Teams

Calculation:

- 16 Teams x 5 Games = 80 Game Events
- 16 Teams x 33 Practices = 528 ÷ 2 (.5 Event) = 264 Practice Events
- 80 Game Events + 264 Practice Events = 344 Events

2007
Census

Given:

➤ Registrants = 201

○ Census Data

1990 pop = 19,757

2000 pop = 21,131

○ Population increase $(21,131 - 19,757) = 1,374$ over 10 years

○ Percent of increase $(1,374 \div 19,757) = 6.95\%$ over 10 years

Calculation:

○ 1 year growth $(6.95 \div 10 \text{ years}) = .695\%$ over 1 year

○ 4 year growth $(.695 \times 4 \text{ years}) = 2.78\%$ over 4 years

○ Registrant increase $(195 \times 1.0278\%) = 200.4$

➤ Teams = $(200.4 \div 14) = 14.3$ or 15 Teams

• 15 Teams x 5 Games = 75 Game Events

• 15 Teams x 33 Practices = 495 $\div 2$ (.5 Event) = 247.5 Practice Events

□ 75 Game Events + 247.5 Practice Events = 322.5 or 323 Events

2014
League

Given:

➤ Registrants = 234

○ Teams = $(2234 \div 14) = 16.7$ or 17 Teams

Calculation:

• 17 Teams x 5 Games = 85 Game Events

• 17 Teams x 33 Practices = 561 $\div 2$ (.5 Event) = 280.5 Practice Events

□ 85 Game Events + 280.5 Practice Events = 365.6 or 366 Events

SUMMIT SOCCER CLUB, U 11 and Under (FALL) (Cont.)

2014
Census

Given:

➤ Registrants = 210

- Census Data
 - 1990 pop = 19,757
 - 2000 pop = 21,131
- Population increase $(21,131 - 19,757) = 1,374$ over 10 years
- Percent of increase $(1,374 \div 19,757) = 6.95\%$ over 10 years

Calculation:

- 1 year growth $(6.95 \div 10 \text{ years}) = .695\%$ over 1 year
- 11 year growth $(.695 \times 11 \text{ years}) = 7.65\%$ over 11 years
- Registrant increase $(195 \times 1.0765\%) = 209.9$
- Teams = $(209.9 \div 14) = 15$ Teams
- 15 Teams x 5 Games = 75 Game Events
- 15 Teams x 33 Practices = 495 $\div 2 (.5 \text{ Event}) = 247.5$ Practice Events
- 75 Game Events + 247.5 Practice Events = 322.5 or 323 Events

EVENTS DRIVEN APPROACH: (DATA)

Possible events per league calculations:

2003
League
SUMMIT SOCCER CLUB , U 11 and Over (FALL)

Given:

- Registrants = 240
- Teams = 15
- Home games = 5
- Practices = 33
- Travel leagues

Calculation:

- Travel leagues = Games = 1 Event, Practices = .5 Event
- Players per team (240 ÷ 15) = 16
- 15 Teams x 5 Games = 75 Game Events
- 15 Teams x 33 Practices = 495 ÷ 2 (.5 Event) = 247.5 Practice Events
- 75 Game Events + 247.5 Practice Events = 322.5 or 323 Events

2007
League

Given:

- Registrants = 264
- Teams = (264 ÷ 16) = 16.5 or 17 Teams

Calculation:

- 17 Teams x 5 Games = 85 Game Events
- 17 Teams x 33 Practices = 561 ÷ 2 (.5 Event) = 280.5 Practice Events
- 85 Game Events + 280.5 Practice Events = 365.5 or 366 Events

**2007
Census**

Given:

➤ Registrants = 247

○ Census Data

1990 pop = 19,757

2000 pop = 21,131

○ Population increase (21,131-19,757) = 1,374 over 10 years

○ Percent of increase (1,374 ÷ 19,757) = 6.95% over 10 years

Calculation:

○ 1 year growth (6.95 ÷ 10 years) = .695% over 1 year

○ 4 year growth (.695 x 4 years) = 2.78% over 4 years

○ Registrant increase (240 x 1.0278%) = 246.7

➤ Teams = (246.7 ÷ 16) = 15.4 or 16 Teams

• 16 Teams x 5 Games = 80 Game Events

• 16 Teams x 33 Practices = 528 ÷ 2 (.5 Event) = 264 Practice Events

□ 80 Game Events + 264 Practice Events = 344 Events

**2014
League**

Given:

➤ Registrants = 288

○ Teams = (288 ÷ 16) = 18 Teams

Calculation:

• 18 Teams x 5 Games = 90 Game Events

• 18 Teams x 33 Practices = 594 ÷ 2 (.5 Event) = 297 Practice Events

□ 90 Game Events + 297 Practice Events = 387 Events

SUMMIT SOCCER CLUB, U 11 and Over (FALL) (Cont.)

2014
Census

Given:

➤ Registrants = 259

○ Census Data

1990 pop = 19,757

2000 pop = 21,131

○ Population increase (21,131-19,757) = 1,374 over 10 years

○ Percent of increase (1,374 ÷ 19,757) = 6.95% over 10 years

Calculation:

○ 1 year growth (6.95 ÷ 10 years) = .695% over 1 year

○ 11 year growth (.695 x 11 years) = 7.65% over 11 years

○ Registrant increase (240 x 1.0765%) = 258.4

➤ Teams = (258.4 ÷ 16) = 16.2 or 17 Teams

• 17 Teams x 5 Games = 85 Game Events

• 17 Teams x 33 Practices = 561 ÷ 2 (.5 Event) = 280.5 Practice Events

□ 85 Game Events + 280.5 Practice Events = 365.5 or 366 Events

SUMMIT SOCCER CLUB (FALL) (Cont.)

Season	Sept	22 weekdays	+	26	=	91 days
	Oct	21 weekdays				10 weekend days
	Nov	22 weekdays				8 weekend days

91 playdays - 40 rain/recovery days = 51 playable days

38 available weekdays (6pm - 8pm) x 1 (2 hr.) events/day = 38 events
 13 available weekend days
 (Sat. 9am - 8pm)(Sun. 12pm - 8pm)
 4.75 (2 hr.) events/day = 61.75 events
 total possible events = 99.75 events
 say 100 events

Note:

Games are played on Sunday only (League Data)
 Sun 12pm-6pm (6hrs) = 6hrs / 2hrs = 3 events per field
 13 weekend days/2 = 7 Sundays (7x3) = 21 possible Sunday game events

Game Events:

2003: 145 game events/21 possible game events = 6.9 or 7 fields minimum
 2007: (League) 165 game events/21 possible game events = 7.86 or 8 fields min.
 (Census) 155 game events/21 possible game events = 7.38 or 8 fields min.
 2014: (League) 180 game events/21 possible game events = 8.57 or 9 fields min.
 (Census) 160 game events/21 possible game events = 7.61 or 8 fields min.

EVENTS DRIVEN APPROACH: (DATA)

Possible events per league calculations:

2003
YMCA SOCCER (FALL)
League

Given:

- Registrants = 480
- Teams = 43
- Home games = 10
- Practices = 10
- Travel leagues

Calculation:

- Travel leagues = Games = 1 Event, Practices = .5 Event
- Players per team $(800 \div 43) = 18.6$ or 19
- * 40% Discount = $(800 \times 60\%) = 480 / 19 = 25.26$ or 26 Teams
- 26 Teams x 10 Games = 260 Game Events
- 26 Teams x 10 Practices = 260 Practices = 260 ÷ 2 (.5 Event) = 130 Practice Events

□ **260 Game Events + 130 Practice Events = 390 Events**

2007
League

Given:

- Registrants = 528
- * 40% Discount = $(880 \times 60\%) = 528 / 19 = 27.28$ or 28 Teams

Calculation:

- 28 Teams x 10 Games = 280 Game Events
 - 28 Teams x 10 Practices = 280 ÷ 2 (.5 Event) = 140 Practice Events
- **280 Game Events + 140 Practice Events = 420 Events**

YMCA SOCCER (FALL) (Cont.)

2007
Census

Given:

➤ Registrants = 494

○ Census Data

1990 pop = 19,757

2000 pop = 21,131

○ Population increase (21,131-19,757) = 1,374 over 10 years

○ Percent of increase (1,374 ÷ 19,757) = 6.95% over 10 years

Calculation:

○ 1 year growth (6.95 ÷ 10 years) = .695% over 1 year

○ 4 year growth (.695 x 4 years) = 2.78% over 4 years

○ Registrant increase (800x 1.0278%) = 822.24

* 40% Discount = (822.24 x 60%) = **493.34** / 19 = 25.96 or 26 Teams

• 26 Teams x 10 Games = 260 Game Events

• 26 Teams x 10 Practices = 260 ÷ 2 (.5 Event) = 130 Practice Events

□ **260 Game Events + 130 Practice Events = 390 Events**

2014
League

Given:

➤ Registrants = 576

* 40% Discount = (960 x 60%) = **576** / 19 = 30.3 or 31 Teams

Calculation:

• 31 Teams x 10 Games = 310 Game Events

• 31 Teams x 10 Practices = 310 ÷ 2 (.5 Event) = 155 Practice Events

□ **310 Game Events + 155 Practice Events = 465 Events**

YMCA SOCCER (FALL) (Cont.)

2014
Census

Given:

➤ Registrants = 517

- Census Data
 - 1990 pop = 19,757
 - 2000 pop = 21,131
- Population increase (21,131-19,757) = 1,374 over 10 years
- Percent of increase (1,374 ÷ 19,757) = 6.95% over 10 years

Calculation:

- 1 year growth (6.95 ÷ 10 years) = .695% over 1 year
- 11 year growth (.695 x 11 years) = 7.65% over 11 years
- Registrant increase (800 x 1.0765%) = 861.2
- * 40% Discount = (861.2 x 60%) = **516.72** / 19 = 27.19 or 28 Teams
- 28 Teams x 10 Games = 280 Game Events
- 28 Teams x 10 Practices = 280 ÷ 2 (.5 Event) = 140 Practice Events
- **280 Game Events + 140 Practice Events = 420 Events**

YMCA SOCCER (FALL) (Cont.)

Season			
Sept	22 weekdays	65	+
Oct	21 weekdays	26	=
Nov	22 weekdays	91 days	
	8 weekend days		
	10 weekend days		
	8 weekend days		

91 playdays - 40 rain/recovery days = 51 playable days

38 available weekdays (6pm - 8pm) x 1 (2 hr.) events/day = 38 events
 8 available weekend days
 (No Saturday)(Sun. 12pm - 8pm)
 x 4 (2 hr.) events/day = +32 events
total possible events = 70 events

Note:

Games are played on Sunday only (League Data)
 Sun 12pm-8pm (8hrs) = 8hrs / 2hrs = 4 events per field
 8 Sundays (8x4) = 32 possible Sunday game events

Game Events:

2003: 260 game events/32 possible game events = 8.12 or 9 fields minimum
 (League) 280 game events/32 possible game events = 8.75 or 9 fields min.
 (Census) 260 game events/32 possible game events = 8.12 or 9 fields min.
 2014: (League) 310 game events/32 possible game events = 9.68 or 10 fields min.
 (Census) 280 game events/32 possible game events = 8.75 or 9 fields min.

EVENTS DRIVEN APPROACH: (DATA)

Possible events per league calculations:

2003 SUMMIT HIGH SCHOOL BOYS SOCCER (FALL) **League**

Given:

- Teams = 3
- Home games = 10 per team
- Practices = 50 per team

Calculation:

- Travel league = Games = 1 Event, Practice = .5 Event
- 3 Teams x 10 Games = 30 Game Events
- 3 Teams x 50 Practices = (150 ÷ 2) = 75 Practice Events
- 30 Game Events + 75 Practice Events = 105 Events

2007: No change (3 Teams)

2014: No change (3 Teams)

SUMMIT HIGH SCHOOL BOYS SOCCER (FALL) (Cont.)

Season			
Sept	22 weekdays	8 weekend days	
Oct	21 weekdays	10 weekend days	
Nov	22 weekdays	8 weekend days	
	65	26	
	+	=	
			91 days

91 playdays - 40 rain/recovery days = 51 playable days

38 available weekdays (4pm - 8pm) x 2 (2 hr.) events/day = 76 events
 7 available weekend days (Sat. 9am - 8pm)(No Sundays)
 x 5.5 (2 hr.) events/day = 38.5 events
 = 114.5 events
 Say 115 events

EVENTS DRIVEN APPROACH: (DATA)

Possible events per league calculations:

2003 **SUMMIT HIGH SCHOOL GIRLS SOCCER (FALL)** **League**

Given:

- Teams = 3
- Home games = 10 per team
- Practices = 50 per team

Calculation:

- Travel league = Games = 1 Event, Practice = .5 Event
- 3 Teams x 10 Games = 30 Game Events
- 3 Teams x 50 Practices = (150 ÷ 2) = 75 Practice Events
- 30 Game Events + 75 Practice Events = 105 Events

2007: No change (3 Teams)
2014: No change (3 Teams)

SUMMIT HIGH SCHOOL GIRLS SOCCER (FALL) (Cont.)

Season	Sept	22 weekdays	8 weekend days	
	Oct	21 weekdays	10 weekend days	
	Nov	22 weekdays	8 weekend days	
		65	26	=
			91 days	

91 playdays - 40 rain/recovery days = **51 playable days**

38 available weekdays (4pm - 8pm) x 2 (2 hr.) events/day =	76 events
7 available weekend days	
(Sat. 9am - 8pm)(No Sundays)	
x 5.5 (2 hr.) events/day =	+38.5 events
total possible events =	114.5 events
Say	115 events

EVENTS DRIVEN APPROACH: (DATA)

Possible events per league calculations:

2003
League
SUMMIT YOUTH FOOTBALL (FALL)

Given:

- Registrants = 221
- Teams = 6
- Home games = 5
- Practices = 36
- Travel leagues

Calculation:

- Travel leagues = Games = 1 Events, Practices = .5 Event
- Players per team ($221 \div 6 = 36.8$) = 37

- 6 Teams x 5 Games = 30 Game Events
- 6 Teams x 36 Practices = 216 $\div 2$ (.5 Event) = 108 Practice Events

□ 30 Game Events + 108 Practice Events = 138 Events

2007
League

Given:

- Registrants = 250

- Teams = ($250 \div 37$) = 6.76 or 7

Calculation:

- 7 Teams x 5 Games = 35 Game Events
- 7 Teams x 36 Practices = 252 $\div 2$ (.5 Event) = 126 Practice Events

□ 35 Game Events + 126 Practice Events = 161 Events

**2007
Census**

Given:

➤ Registrants = 228

○ Census Data

1990 pop = 19,757

2000 pop = 21,131

○ Population increase (21,131-19,757) = 1374 over 10 years

○ Percent of increase (1,374 ÷ 19,757) = 6.95% over 10 years

Calculation:

○ 1 year growth (6.95 ÷ 10 years) = .695% over 1 year

○ 4 year growth (.695 x 4 years) = 2.78% over 4 years

○ Registrant increase (221 x 1.0278%) = 227.1

➤ Teams = (227.1 ÷ 37) = 6.14 or 6 Teams

• 6 Teams x 5 Games = 30 Game Events

• 6 Teams x 36 Practices = 216 ÷ 2 (.5 Event) = 108 Practice Events

□ 30 Game Events + 108 Practice Events = 138 Events

**2014
League**

Given:

➤ Registrants = 300

○ Teams = (300 ÷ 37) = 8

Calculation:

• 8 Teams x 5 Games = 40 Game Events

• 8 Teams x 36 Practices = 288 ÷ 2 (.5 Event) = 144 Practice Events

□ 40 Game Events + 144 Practice Events = 184 Events

SUMMIT YOUTH FOOTBALL (FALL) (Cont.)

2014
Census

Given:

➤ Registrants = 238

- Census Data
 - 1990 pop = 19,757
 - 2000 pop = 21,131
- Population increase (21,131-19,757) = 1,374 over 10 years
- Percent of increase (1,374 ÷ 19,757) = 6.95% over 10 years

Calculation:

- 1 year growth (6.95 ÷ 10 years) = .695% over 1 year
- 11 year growth (.695 x 11 years) = 7.65% over 11 years
- Registrant increase (221 x 1.0765%) = 237.9
- Teams = (237.9 ÷ 37) = 6.4 or 7 Teams
- 7 Teams x 5 Games = 35 Game Events
- 7 Teams x 36 Practices = 252 ÷ 2 (.5 Event) = 126 Practice Events
- 35 Game Events + 126 Practice Events = 161 Events

SUMMIT YOUTH FOOTBALL (FALL) (Cont.)

Season	16 August	13 weekdays	4 weekend days
	Sept	22 weekdays	8 weekend days
	Oct	21 weekdays	10 weekend days
	23 Nov	17 weekdays	6 weekend days
		73	28
		+	=
		101 days	

101 playdays - 48 rain/recovery days = **53 playable days**

39 available weekdays (6pm - 8pm) x 1 (2 hr.) events/day = 39 events

14 available weekend days

(Sat. 9am - 8pm)(Sun. 10am - 8pm)

= 5.25 (2 hr.) events/day = +73.5 events

= total possible events = 112.5 events

say **113 events**

EVENTS DRIVEN APPROACH: (DATA)

Possible events per league calculations:

2003
League
SUMMIT HIGH SCHOOL FOOTBALL (FALL)

Given:

- Teams = 3
- Home games = 5 per team
- Practices = 70 per team

Calculation:

- Travel league = Games = 1 Event, Practice = .5 Event
- 3 Teams x 5 Games = 15 Game Events
- 3 Teams x 70 Practices = (210 ÷ 2) = 105 Practice Events
- 15 Game Events + 105 Practice Events = 120 Events

2007: No change (3 Teams)

2014: No change (3 Teams)

SUMMIT HIGH SCHOOL FOOTBALL (FALL) (Cont.)

Season	16 August	13 weekdays	4 weekend days
Sept	22 weekdays	8 weekend days	
Oct	21 weekdays	10 weekend days	
23 Nov	17 weekdays	6 weekend days	
		73	28
		+	=
		101 days	

101 playdays - 48 rain/recovery days = 53 playable days

39 available weekdays (4pm - 8pm) x 2 (2 hr.) events/day = 78 events

7 available weekend days

(Sat. 9am - 8pm)(No Sundays)

x 5.5 (2 hr.) events/day = +38.5 events

total possible events = 116.5 events

say 117 events

EVENTS DRIVEN APPROACH: (DATA)

Possible events per league calculations:

2003
League
SUMMIT HIGH SCHOOL FIELD HOCKEY (FALL)

Given:

- Teams = 3
- Home games = 15 per team
- Practices = 50 per team

Calculation:

- Travel league = Games = 1 Event, Practice = .5 Event
- 3 Teams x 15 Games = 45 Game Events
- 3 Teams x 50 Practices = (150 ÷ 2) = 75 Practice Events
- 45 Game Events + 75 Practice Events = 120 Events

2007: No change (3 Teams)
2014: No change (3 Teams)

SUMMIT HIGH SCHOOL FIELD HOCKEY (FALL)

Season	16 August	13 weekdays	4 weekend days
	Sept	22 weekdays	8 weekend days
	Oct	21 weekdays	10 weekend days
	23 Nov	17 weekdays	6 weekend days
		73	28
		+	=
		101 days	

101 playdays - 48 rain/recovery days = **53 playable days**

39 available weekdays (4pm - 8pm) x 2 (2 hr.) events/day = 78 events
 7 available weekend days
 (Sat. 9am - 8pm)(No Sundays)
 x 5.5 (2 hr.) events/day = +38.5 events
total possible events = 116.5 events
 say **117 events**

EVENTS DRIVEN APPROACH: (DATA)

Possible events per league calculations:

2003 SUMMIT MIDDLE SCHOOL FIELD HOCKEY (FALL) League

Given:

- Teams = 1
- Home games = 15 per team
- Practices = 50 per team

Calculation:

- Travel league = Games = 1 Event, Practice = .5 Event
- 1 Teams x 15 Games = 15 Game Events
- 1 Teams x 50 Practices = (50 ÷ 2) = 25 Practice Events
- 15 Game Events + 25 Practice Events = 40 Events

2007: No change (1 Teams)

2014: No change (1 Teams)

SUMMIT MIDDLE SCHOOL FIELD HOCKEY (FALL) (Cont.)

Season	16 August	13 weekdays	4 weekend days
	Sept	22 weekdays	8 weekend days
	Oct	21 weekdays	10 weekend days
	23 Nov	17 weekdays	6 weekend days
		73	28
		+	=
		101 days	

101 playdays - 48 rain/recovery days = **53 playable days**

39 available weekdays (4pm - 8pm) x 2 (2 hr.) events/day = 78 events
 7 available weekend days
 (Sat. 9am - 8pm)(No Sundays)
 x 5.5 (2 hr.) events/day = +38.5 events
total possible events = 116.5 events
 say **117 events**

EVENTS DRIVEN APPROACH: (DATA)

Possible events per league calculations:

2003 SUMMIT JR. BASEBALL (FALL) League

Given:

- Registrants = 45
- Teams = 3
- Home games = 15
- Practices = 16
- No travel leagues

Calculation:

- Travel league = Games = 1 Event, Practice = 1 Event
- Players per team $(45 \div 3) = 15$

- 3 Teams x 15 Games = 45 Game Events
- 3 Teams x 16 Practices = 48 Practice Events
- 45 Game Events + 48 Practice Events = 93 Events

2007 League

Given:

- Registrants = 45
- Teams = $(45 \div 15) = 3$

Calculation:

- 3 Teams x 15 Games = 45 Game Events
- 3 Teams x 16 Practices = 48 Practice Events
- 45 Game Events + 48 Practice Events = 93 Events

2007
Census

Given:

➤ Registrants = 47

○ Census Data

1990 pop = 19,757

2000 pop = 21,131

○ Population increase $(21,131 - 19,757) = 1,374$ over 10 years

○ Percent of increase $(1,374 \div 19,757) = 6.95\%$ over 10 years

Calculation:

○ 1 year growth $(6.95 \div 10 \text{ years}) = .695\%$ over 1 year

○ 4 year growth $(.695 \times 4 \text{ years}) = 2.78\%$ over 4 years

○ Registrant increase $(45 \times 1.0278\%) = 46.3$ or 47

➤ Teams = $(47 \div 15) = 3.13$ or 4 Teams

• 4 Teams x 15 Games = 60 Game Events

• 4 Teams x 16 Practices = 64 Practice Events

□ **60 Game Events + 64 Practice Events = 124 Events**

2014
League

Given:

➤ Registrants = 45

○ Teams = $(45 \div 15) = 3$

Calculation:

• 3 Teams x 15 Games = 45 Game Events

• 3 Teams x 16 Practices = 48 Practice Events

□ **45 Game Events + 48 Practice Events = 93 Events**

2014
Census

Given:

- Registrants = 49
- Census Data
 - 1990 pop = 19,757
 - 2000 pop = 21,131
- Population increase (21,131-19,757) = 1,374 over 10 years
- Percent of increase (1,374 ÷ 19,757) = 6.95% over 10 years

Calculation:

- 1 year growth (6.95 ÷ 10 years) = .695% over 1 year
- 11 year growth (.695 x 11 years) = 7.65% over 11 years
- Registrant increase (45 x 1.0765%) = 48.4 or 49
- Teams = (49 ÷ 15) = 3.2 or 4 Teams
- 4 Teams x 15 Games = 60 Game Events
- 4 Teams x 16 Practices = 64 Practice Events
- 60 Game Events + 64 Practice Events = 124 Events

Season		Sept	22 weekdays	8 weekend days	
		Oct	21 weekdays	10 weekend days	
			43	18	= 61 days

61 playdays - 29 rain/recovery days = 34 playable days
(43 - 18 rain = 25 days; 18 - 9 rain = 9 days)

25 available weekdays (4pm-8pm) x 2 events (2hr.) per day = 50 events
9 available weekend days (Sat. 9am-8pm)
(Sun. 12pm-8pm) x 4.75 events (2hr.) per day = +42.75 events

total possible events = 92.75 events
say 93 events

Iowa State Survey Analysis

Analysis method based on an Iowa State University athletic field durability survey study to determine athletic field needs for the City of Summit.

(Sample Formula):

Iowa State University provided data:

- One (1) athletic game or 1 civic event = one (1) athletic field event
- One (1) athletic practice = one-half (.5) athletic field event
- Maximum of 64 athletic field events per year to allow for seasonal field recovery.
- Maximum of 79 athletic field events before field degradation requiring 1 year resting period to regenerate thatch layer.

Athletic Field Recovery Rationale (i.e. soccer, football, lacrosse, etc.):

CME Associates assumed a maximum of 33% of the difference between the 64 events for recovery and the 79 events for resting.
 $79 - 64 = 15$, $15 \times 0.33 = 5$, $64 + 5 = 69$

Baseball Field Recovery Rationale

CME Associates assumed a maximum of 1.5 times the amount of athletic events determined in the above, considering a lesser amount of field degradation for baseball compared with the intensity and impact of other field sports.
 $69 \times 1.5 = 103.5$, say 103

Sample Analysis

Activity (A) current registrants = 300
 Activity (A) registrants per team = 20
 Activity (A) number of teams ($300 \div 20$) = 15 teams

Each Activity (A) = 12 home games per team, 20 practices per team
 $(12 \times 15) = 180$ games or 180 events
 $(20 \times 15) = 300 \div 2(.5) = 150$ practices or 150 events

Total No. of Events for Activity (A) (180 + 150) = 330

Total number of fields required for Activity (A) ($330 \div 69$) = 4.78 or 5 fields

IOWA STUDY APPROACH -- CENSUS DATA

1 GAME = 1 EVENT; 1 PRACTICE = .5 EVENT

SPRING

Current

2007

2014

Recreational Activity	Games/Practice
Summit Softball/Men's Fast/Slow Pitch	20 / 2
Summit Jr. Softball Girls	10 / 20
MS Softball Girls	20 / 30
HS Softball Girls	10 / 50
Summit Jr. Baseball/T-Baseball	10 / 20
HS Baseball	10 / 50
Summit Soccer Club	5 / 33
YMCA Soccer 40% Discount	10 / 10
Summit Boys Lacrosse	5 / 17
Summit Girls Lacrosse	5 / 17
HS Boys Lacrosse	10 / 42
HS Girls Lacrosse	10 / 42

Teams	Events
8	168
9	180
1	35
2	70
65	1,300
3	105
31	666.5
20	300
14	189
10	135
3	93
3	93

Teams	Events
9	189
9	180
1	35
2	70
67	1,340
3	105
33	710
21	315
15	203
10	135
3	93
3	93

Teams	Events
9	189
10	200
1	35
2	70
70	1,400
3	105
35	753
22	330
16	216
11	149
3	93
3	93

SUMMER

Summit Jr. Baseball	12 / 2
Legion Sr./Jr. Baseball	15 / 3

11	143
2	33

11	143
2	33

12	156
2	33

FALL

Summit Soccer	5 / 10
Summit Soccer Club	5 / 33
YMCA Soccer 40% Discount	10 / 10
HS Soccer	10 / 50
Summit Youth Football	5 / 36
HS Football	5 / 70
HS Field Hockey	15 / 50
MS Field Hockey	15 / 50

18	160
29	624
26	390
6	210
6	138
3	120
3	120
1	40

17	170
31	667
26	390
6	210
6	138
3	120
3	120
1	40

18	180
32	668
28	420
6	210
7	161
3	120
3	120
1	40

IOWA STUDY APPROACH -- LEAGUE DATA

1 GAME = 1 EVENT; 1 PRACTICE = .5 EVENT

SPRING

Current

2007

2014

Recreational Games/Activity	Summit Softball/Men's Fast/Slow Pitch	Summit Jr. Softball	MS Softball	HS Softball	Summit Jr. Baseball/T-Baseball	HS Baseball	Summit Soccer Club	YMCA Soccer	40% Discount	Summit Boys Lacrosse	Summit Girls Lacrosse	HS Girls Lacrosse
20 / 2	10 / 20	20 / 30	10 / 50	10 / 20	10 / 50	5 / 33	10 / 10	5 / 17	10 / 42	5 / 17	10 / 42	10 / 42

Teams	Events	8	180	9	35	2	65	105	31	20	14	10	3	93
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Teams	Events	10	210	10	200	1	2	71	105	36	22	16	11	3	93
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Teams	Events	10	220	1	35	3	78	105	39	24	18	12	3	93
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SUMMER

Summit Jr. Baseball	12 / 2	Legion Sr./Jr. Baseball	15 / 3
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11	143	2	33
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12	156	2	33
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13	169	2	33
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FALL

Summit Recreation Soccer	5 / 10	Summit Soccer Club	5 / 33	YMCA Soccer	10 / 10	HS Soccer	10 / 50	Summit Youth Football	5 / 36	HS Football	5 / 70	HS Field Hockey	15 / 50	MS Field Hockey	15 / 50
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16	160	29	624	26	390	6	210	6	138	3	120	3	120	1	40
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20	200	33	710	28	420	6	210	7	161	3	120	3	120	1	40
----	-----	----	-----	----	-----	---	-----	---	-----	---	-----	---	-----	---	----

20	200	36	774	31	465	6	210	8	184	3	120	3	120	1	40
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Appendix C
City of Summit Recreational Survey
Questions and Responses

City of Summit Recreation Survey - Page 1

Please return by October 29, 2004 to Recreation Survey, City Hall, 512 Springfield Ave., Summit, NJ 07901
Only original surveys will be accepted. Photocopies and faxes will not be accepted.

Name _____
Address _____

Please circle the methods that you use to keep informed about recreational activities:

Direct mail of brochure _____
Flyers coming home from schools _____
Recreation website _____
Public access cable TV _____
Brochures or posters at public facilities _____
Newspapers _____
Word of mouth _____
Email _____

AREAS OF NEED

Please indicate whether you feel the following additional facilities and programs are needed in Summit.

Yes	No		Yes	No
1	2	Tennis courts	1	2
1	2	Squash courts	1	2
1	2	Trips	1	2
1	2	Cycling Clubs	1	2
1	2	All purpose gymnasium	1	2
1	2	Playground areas in parks	1	2
1	2	Teen Center	1	2
1	2	Ice skating/hockey rink	1	2
1	2	In-line hockey rink	1	2
1	2	Weight/Exercise facility	1	2
1	2	Nature areas	1	2
1	2	Performing/fine arts center	1	2
1	2	Outdoor basketball courts	1	2
1	2	Running clubs/running events	1	2
1	2	Dog Park	1	2
1	2	Skateboard parks	1	2

RECREATION INTERESTS

Listed below are a range of recreational activities that can be enjoyed year-round. Please indicate family interest level

Category	Example	Great	Some	No	Interest	Interest	Interest
Arts & Crafts	Ceramics, photography, calligraphy, drawing, painting textiles, etc.	3	2	1	1	1	1
Performing Arts	Theater, concerts, ballet, music, plays, etc.	3	2	1	1	1	1
Sports and Athletics	Baseball, soccer, basketball, badminton, tennis, etc.	3	2	1	1	1	1
Clubs	Chess clubs, bridge clubs, reading clubs etc.	3	2	1	1	1	1
Environmental	Gardening, natural landscaping, nature study, nature walks, etc.	3	2	1	1	1	1
Self Improvement	Self-defense, home improvement, computer, health, etc.	3	2	1	1	1	1
Social	Dancing, teen clubs, senior club, bridge, etc.	3	2	1	1	1	1
Hobbies	Cooking, flower arranging, models, chess, etc.	3	2	1	1	1	1
Travel & Tourism	Trips to points of interest within 3 hour drive, etc.	3	2	1	1	1	1
Special Events	One or two day events, festivals, shows, etc.	3	2	1	1	1	1
Outdoor Fitness	Hiking, training, walking, biking, etc.	3	2	1	1	1	1
Aquatics	Lap swim, swim lessons, open swim, etc.	3	2	1	1	1	1
Indoor Fitness	Exercise, equipment, free weights, jogging track, aerobics, etc.	3	2	1	1	1	1
Family Programs	Splash parties, and parent/child dances, family nights, etc.	3	2	1	1	1	1
Special Needs Programs	Special Olympics/ Other	3	2	1	1	1	1

PERSONAL OPINIONS

ATTENDANCE

ATTENDANCE

ATTENDANCE

ATTENDANCE

ATTENDANCE

ATTENDANCE

Summit Master Plan

Recreation Survey Results

12/20/04

AREAS OF NEED

YES NO OMIT

Bike Trails
Jogging/Walking Trails
Athletic fields in general
Symphonies, Park Concerts
Nature Areas
Playground areas in parks
Senior Activities
Landscaped Parks/Gardens
Senior Center

67.28%
63.97%
56.25%
55.15%
42.28%
42.28%
22.06%
27.57%
41.91%
41.91%
37.13%
35.29%
13.60%
13.60%
22.43%
27.21%
23.53%
34.56%
35.66%
30.51%
37.13%
20.96%
27.94%

RECREATION INTERESTS

GREAT SOME NO OMIT

Sports and Athletics
Outdoor Fitness
Environmental
Performing Arts
Self Improvement
Arts & Crafts
Special Events
Hobbies
Aquatics
Indoor Fitness

55.88%
45.96%
20.22%
31.25%
9.93%
44.49%
43.01%
24.63%
27.57%
35.29%
28.31%
25.00%
22.79%
33.09%
11.76%
22.06%
14.34%
32.35%
13.24%
12.87%
11.76%
13.24%
10.66%
11.40%

PERSONAL OPINIONS

STRONGLY AGREE
AGREE
DISAGREE
STRONGLY DISAGREE
OMIT
DON'T KNOW

Need for More Fields
Support Lighted Facilities

38.24%
32.72%
19.85%
28.31%
14.71%
10.29%
13.97%
18.38%
3.68%
2.94%
9.56%
7.35%

ATTENDANCE

12 to 24
6 to 12
2 to 6
ONCE
NEVER
OMIT

Athletic Fields, Memorial

43.01%
13.24%
9.19%
5.51%
23.16%
5.88%

C3

In an effort to determine the needs and wants of the residents of the City of Summit, the Summit Board of Recreation sent out a Recreation Survey to 8,100 residents in August 2004. Of the 8,100 residents that were offered the survey 272 responded, about 3.4%. The categories consist of Areas of Need, Recreation Interests, Personal Opinions, and Attendance. Our office determined a priority list to the survey responses of the residents.

The Areas of Need portion of the survey indicates what additional facilities the residents believe are needed. The results from the survey indicates that bike trails are the most needed amenity for the City of Summit with 67.28% responding YES, 19.12% responding NO, and 13.60% OMITTING. Jogging/Walking Trails are next with 63.97% responding YES, 22.43% responding NO, and 13.60% OMITTING. And third on the list are Athletic Fields with 56.25% responding YES, 27.21% responding NO, and 16.54% OMITTING. The summary list includes all categories in which the percentage of YES responses are higher than the percentage of NO responses. These categories include Symphonies and Park Concerts, Nature Areas, Playground Areas in Parks, Senior Activities, Landscaped Park/Gardens, and a Senior Center.

The Recreation Interests portion of the survey indicates what recreational activities the residents and their families are interested in. The results from the survey indicate that Sports and Athletics are of most interest to the residents with 55.88% responding with GREAT INTEREST, 22.79% with SOME INTEREST, 13.60% with NO INTEREST, and 7.72% OMITTING. Outdoor Fitness is next with 45.96% responding with GREAT INTEREST, 33.09% with SOME INTEREST, 11.76% with NO INTEREST, and 9.19% OMITTING. And third on the list are Environmental Interests with 20.22% responding with GREAT INTEREST, 48.53% with SOME INTEREST, 22.06% with NO INTEREST, and 9.19% OMITTING. The summary list includes all categories in which the percentage of GREAT INTEREST responses or SOME INTEREST responses is higher than the percentage of NO INTEREST responses. These categories include Performing Arts, Self Improvement, Arts and Crafts, Special Events, Hobbies, Aquatics, and Indoor Fitness.

The Personal Opinions portion of the survey indicates what the resident's personal opinions about a variety of issues are. The results from the survey indicate that a Need for More Fields are of most interest to the residents with 38.24% STRONGLY AGREEING, 19.85% AGREEING, 14.71% DISAGREEING, 13.97% STRONGLY DISAGREEING, 3.68% OMITTING, and 9.56% NOT KNOWING. Supported Lighted Facilities is next with 32.72% STRONGLY AGREEING, 28.31% AGREEING, 10.29% DISAGREEING, 18.38% STRONGLY DISAGREEING, 2.94% OMITTING, and 7.35% NOT KNOWING. The summary list does not include answers to any other categories for this section.

Summit Master Plan
Recreation Survey Results Summary (Cont.)

The **Attendance** portion of the survey indicates approximately the number of times residents and their family members visited certain facilities within the City of Summit. The results from the survey indicate that Memorial Athletic Fields are frequented most by the residents with 43.01% visiting 12 to 24 TIMES A YEAR, 13.24% visiting 6 to 12 TIMES A YEAR, 9.19% visiting 2 to 6 TIMES A YEAR, 5.51% visiting ONCE A YEAR, 23.16% NEVER visiting, and 5.88% OMITTING. The remainder of the list of facilities in the survey all had the highest response percentages indicating that the residents NEVER have visited the sites.

**Recreational Concept Improvement Plans and Cost
Estimates**

Appendix D

CONCEPTUAL IMPROVEMENT COST ESTIMATE FOR

LOT 1, BLOCK 4901 – 2 ACRES GLENSIDE FIELDS

Site Location

The Glenside Fields is a 2-acre park and is contiguous with the Watchung Preserve Area, known as Lot 1, Block 4901 on the city tax map. The 2-acre parcel is leased by the City of Summit from Union County for soccer field use. It is located on Glenside Avenue, north of Rt. 78, in the southern portion of the city. Rt. 78 borders it to the south, and the Watchung Reservoir to the north and east. The park site is also adjacent to the Union County Police K-9 training Facility.

Recommended Site Improvements

The topographic character of this site contains steep slopes requiring limited maintenance and prohibiting lawn mowing on the slopes. Due to the steep topography a radical play field reconstruction is not recommended since significant expenditures for retaining walls would likely be incurred. Although the two existing soccer fields are non-regulation in size and are not suitable for scholastic athletic use, it has been expressed that the existing field sizes function well for the current youth/recreation soccer organizations. It is recommended that the existing soccer fields be reconstructed to provide adequate drainage and eliminate the subsurface conditions that now result in debris and rocks migrating to the field surface. Bleachers should also be considered for this facility. It is further recommended that the City consider reconstruction of the natural turf fields to provide a synthetic surface which will address the drainage concerns and correct the subsurface condition as well as extend and improve available field time and field quality.

The existing site does not afford adequate parking facilities or parking space quantity to service the two fields. It is recommended that the existing parking lot be reconstructed to provide an additional 48 parking spaces and improve pavement quality, traffic circulation, and handicapped accessibility. A grant application for lighting of the fields is pending.

The site currently does not address auxiliary facilities such as bathrooms, concession area, or play area. It is recommended that these standard amenities be provided at all public recreational sites. Since the existing onsite building is a secure structure (Union County police K-9 training facility), public accessibility to the building's restrooms is not presently an option. The standard amenities suggested will require new facility construction.

The incorporation of an inline skating rink at the rear of the site as a future recreational component of the park area should be considered, provided access and security for such a facility are addressed.

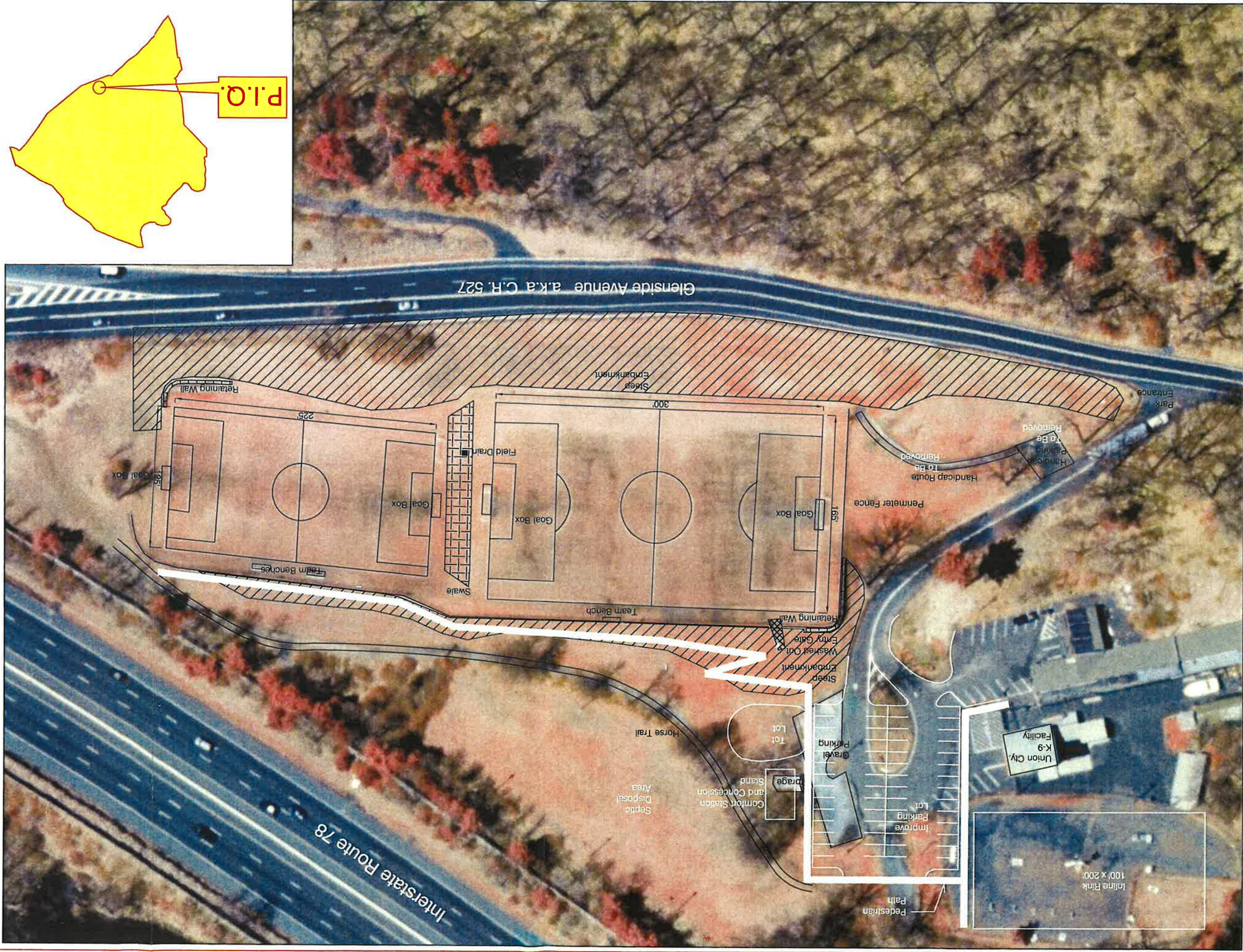
GLENSIDE FIELDS (Cont.)

Site Improvement Cost Estimate = \$2,553,500.00 - \$3,064,200.00

Notes:

All field and court construction estimates
do not include sports lighting.

This cost estimate is intended for use as a
planning tool and actual construction costs will vary.



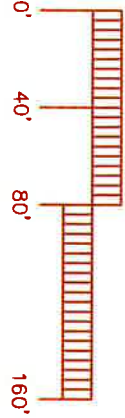
Glenside Fields

City of Summit, Union County, New Jersey

Lot 1, Block 4901
Park Dedication: 1999
Tract Size : 433 Acres
Developed Area : 2 Acres



GRAPHIC SCALE 1"=80'



CONCEPTUAL IMPROVEMENT COST ESTIMATE FOR

LOT 27, BLOCK 4101 – 6.7 ACRES SUMMIT RECREATION CENTER

Site Location

The Summit Recreation Center (aka Edison Recreation Center) is a 6.7-acre park owned by the City of Summit, known as Lot 27, Block 4101 on the city tax map. It is located on Morris Avenue, just east of Morris Court, in the southeastern portion of the city. Residential houses on Morris Court to the west, Morris Avenue to the north, and a corporate drive to the east border this park site.

Recommended Site Improvements

The Summit Recreation Center provides outdoor baseball, fall soccer and play lot facilities as well as indoor basketball and recreational program activities. The indoor basketball court is limited and does not provide for spectator viewing or player changing rooms. The expansion of the indoor basketball facility has been a point of discussion with the Board of Recreation to meet the needs and expand the recreation basketball programs in the City. Through this concept plan it is recommended that the existing recreation building be expanded toward Morris Court to accommodate 2 new regulation sized basketball courts (50' x 84').

The expansion of the recreation building and added indoor activities will require the expansion of the existing vehicle parking facility, which is currently inadequate to meet the peak parking demands for the existing building. It is recommended that the existing parking lot of the recreation building be expanded to provide an additional access aisle and an additional 22 parking spaces. This parking lot expansion will require the construction of a structural sound retaining wall to mitigate the severe topographic changes in the immediate area. Additional angled vehicle parking of 8 spaces has been included in front of the recreation building along with an access road running parallel to Morris Avenue and connecting the expanded lot to Morris Court, west of the building. The total additional parking facility expansion associated with the building is 30 vehicle spaces.

Located behind the recreation center is a recently reconstructed ball field with a clay infield, which will remain undisturbed. It is recommended that one additional baseball field be considered and located south of the existing ball field to increase Summits recreational inventory. The new ball field will require the construction of a retaining wall, creating an upper terrace for the existing field and a lower terrace for the new field. The existing miscellaneous play equipment and paved play court area located in the area of the new field is in less than fair condition and would have to be removed.

Also proposed with this plan is the construction of a small, 20-vehicle parking lot to be located west of the new ball field. This improvement would serve the new field directly and provide overflow parking for the existing recreation center.

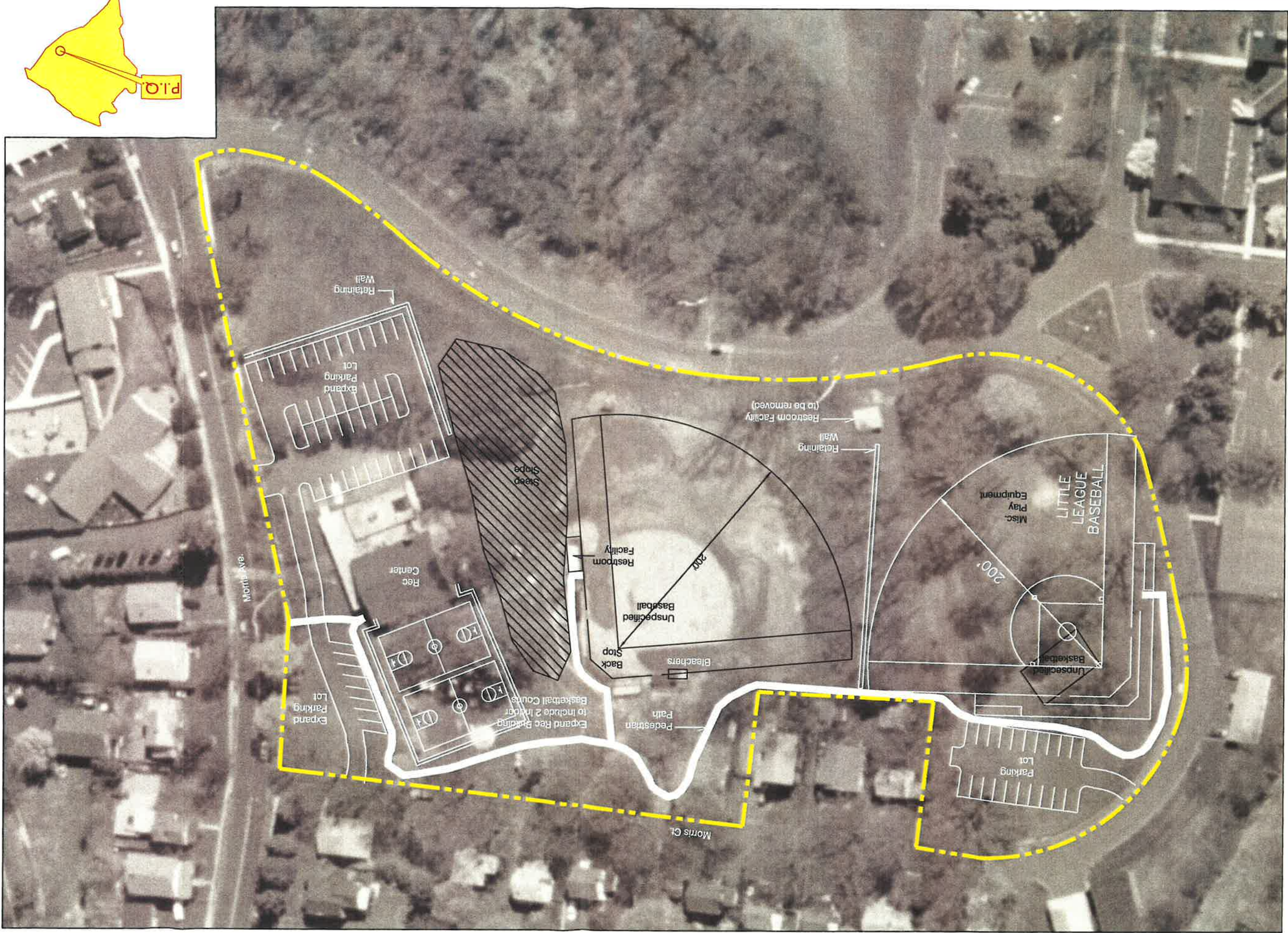
SUMMIT RECREATION CENTER (Cont.)

The existing and proposed site amenities should be connected by a pedestrian/bicycle path located along the west side of the parcel from the lower field to the upper field and to the expanded existing parking lot as well as the existing recreation center building.

Site Improvement Cost Estimate = \$1,065,300.00 – \$1,278,400.00

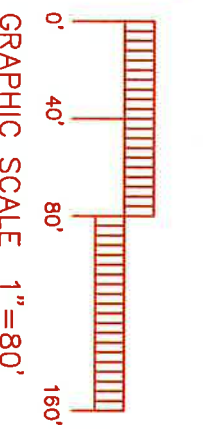
Notes:
All field and court construction estimates
do not include sports lighting.

This cost estimate is intended for use as a
planning tool and actual construction costs will vary.



Summit Recreation Center

(Prior to Renovations)
City of Summit, Union County, New Jersey



CONCEPTUAL IMPROVEMENT COST ESTIMATE FOR

LOT 1, BLOCK 401 – 29.8 ACRES TATLOCK CENTER

Site Location

The Tatlock Center is a 29.8-acre site owned by the City of Summit, known as Lot 1, Block 401 on the city tax map. The site is located on Butler Parkway, northeast of Washington School, in the northwest section of the City. The athletic field, Metro Homes Field, has been improved; by removing the existing natural turf play field and installing a synthetic turf playfield. In addition the perimeter track will be resurfaced with a rubberized track surface as well as the rubberizing the high jump, long jump and pole vault areas of the facilities.

This area is adjacent to the multipurpose field next to Washington School, which is traditionally utilized for organized scholastic and youth lacrosse and football practices and games. The use of Metro Homes Field and the multipurpose field at Washington School by the football and lacrosse teams are tied to the needs of those teams to use the changing facilities and lockers located in Anderson field house. This concept plan should be considered in conjunction with the Washington School concept plan.

Recommended Site Improvements

The existing Tatlock Center recreation area consists of a stadium play field surrounded by a standard 440 meter running track and track and field amenities, a field house with locker room facilities, a moderately sized paved parking lot for 89 vehicles, one basketball court, a bank of four, lighted tennis courts, and a tot lot play area that is used by the students of Washington School. The existing parking lot located along Butler Parkway, in front of the existing field house, provides controlled access through the park to Aubrey Street at the north side of the park.

Metro Homes Field was recently renovated with drainage improvements and synthetic turf. The Summit High School football, boys lacrosse and track and field teams currently utilize the facilities as their home field for games and practices. The synthetic turf will expand the available field utilization time for games and practices as well as expanding the variety of field utilization by lacrosse, soccer, and field hockey teams and organizations. The track and field amenities will also be improved with the addition of a rubberized track surface, which will centralize these related activities.

The concept plan identifies the construction of one additional tennis court within the existing bank of four courts creating a total of 5 tennis courts. This addition, together with other tennis court construction recommendations, specifically in the Memorial Field area, will satisfy the need for courts utilized by the High School and Middle School intramural tennis teams as well as the needs of the Summit Tennis Association, providing a total of fifteen (15) municipal tennis courts.

The relocation and expansion of the existing play lot area, adjoining the Washington School area will enhance and update the functionality, safety, and aesthetics of the play lot for visitors to the site and Washington School students.

The existing parking lot expansion of an additional 20 parking spaces will eliminate the one-way aisles and provide two-way vehicular aisles for improved circulation. The increased parking spaces will provide better service for the added facility amenities and reduce the currently experienced on-street parking congestion along Butler Parkway and alleviate some adjoining resident concern.

While the concept plan recommends improvement and expansion of the current programmed athletic facilities of the site, improvement of the passive recreational facilities of the site are also recommended. Proposed for the site is approximately 3,250 linear feet of pedestrian/bicycle trail to be constructed through the woodlands along Butler Parkway. The trail will provide an access route that transects the park site providing opportunity for environmental and wildlife education along the northern end of the trail route within the natural woodland area.

Site Improvement Cost Estimate = \$613,550.00.00 – \$736,260.00

Notes:
All field and court construction estimates
do not include sports lighting.

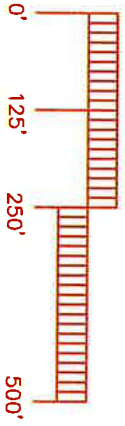
This cost estimate is intended for use as a
planning tool and actual construction costs will vary.



Tract Size: 20.8 Acres

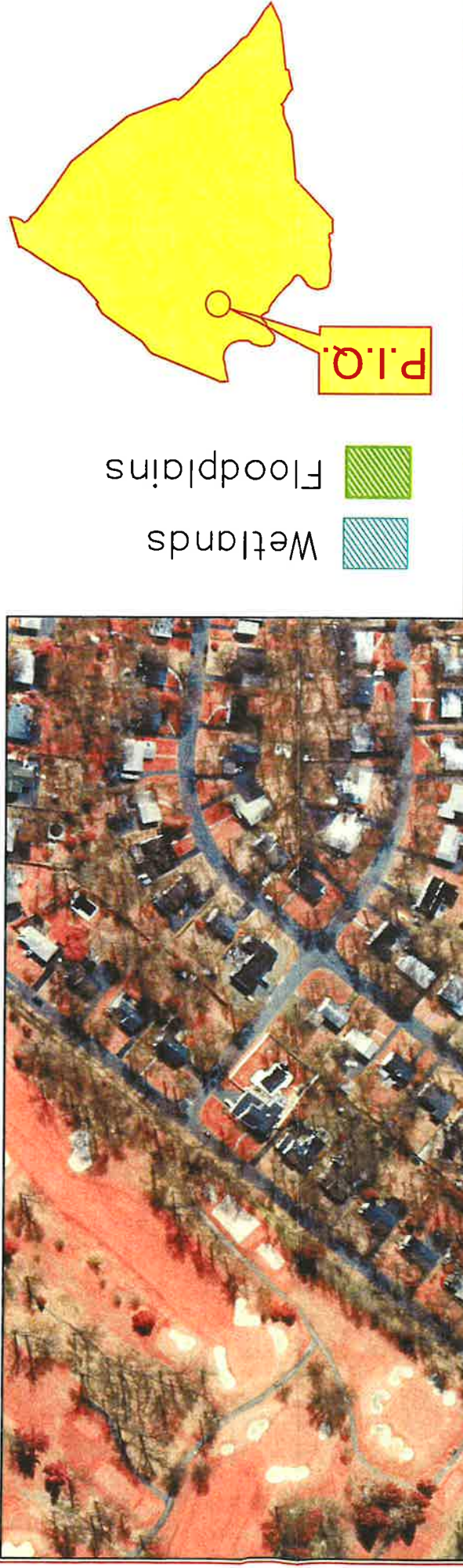


GRAPHIC SCALE 1"=250'



Tatlock Center

City of Summit, Union County, New Jersey



CONCEPTUAL IMPROVEMENT COST ESTIMATE FOR

LOT 2, BLOCK 401 – 5.8 ACRES WASHINGTON ELEMENTARY SCHOOL

Revisions and Discussions in 2003 – 2004 in connection with
Proposal of the Joint Committee of the Summit Board of Recreation and
Summit Board of Education to improve Washington and Tatlock Fields

Site Location

Washington Elementary School is located on Morris Avenue between Butler Parkway and Lafayette Avenue, known as Lot 2, Block 401 on the city tax map. Washington Elementary School adjoins Tatlock Center along the easterly property line and utilizes the playground equipment of the Tatlock Center and shares an adjoining open lawn area for recreational purposes.

Recommended Site Improvements

The existing multipurpose field adjacent to Washington School was the focus of meetings, prior to the preparation of this Recreational Master Plan, to review and determine the extent of the anticipated field improvements. The open lawn/play field area is currently utilized by the Washington school students for recess activities, by City residents for special annual functions, and by organized athletic games and practices of the High School football team, Recreation Department football program and the Summit Lacrosse teams. The excessive use of the field has resulted in constant degradation requiring continuous maintenance to maintain a below acceptable field surface. During the fall season the condition of the field is reduced to soil and mud with nearly no turf cover. As described during the public meetings related to the improvements to this lawn area, it is recommended that the field area be expanded to accommodate a multipurpose play field allowing for flexibility of scheduling for football, soccer, lacrosse, and field hockey sporting events after school hours, while providing a safe playground area for the students of Washington school and the surrounding residential community. Further, to assure usage of the field for games and practices it is recommended that a synthetic surface be installed on the expanded field.

The proposed enlargement of the play field to provide for the multipurpose uses requires the reggrading of the existing area's topography and the installation of a 350 linear feet retaining wall, located on the northwest corner of the new play field.

Also proposed is the installation of a sidewalk to provide a formal connection and to afford adequate pedestrian circulation from the Tatlock Center and the facilities at the Washington school site. The sidewalk would extend from an existing parking lot, located at the northeast corner of the school, past the new field and upgraded tot lot area to the existing pathway located behind the field house. In addition to the formal sidewalk, a pedestrian/bicycle path is proposed to extend the from the same parking lot at the school to the south of the new field and connect to the proposed pathway described in the Tatlock Center concept plan, extending the 3,250 linear feet environmental path.

WASHINGTON ELEMENTARY SCHOOL (Cont.)

The existing parking lot and paved play lot, located in the northeast corner of the school property will remain to function as an overflow parking area for special play field events scheduled with the City's Recreation Department.

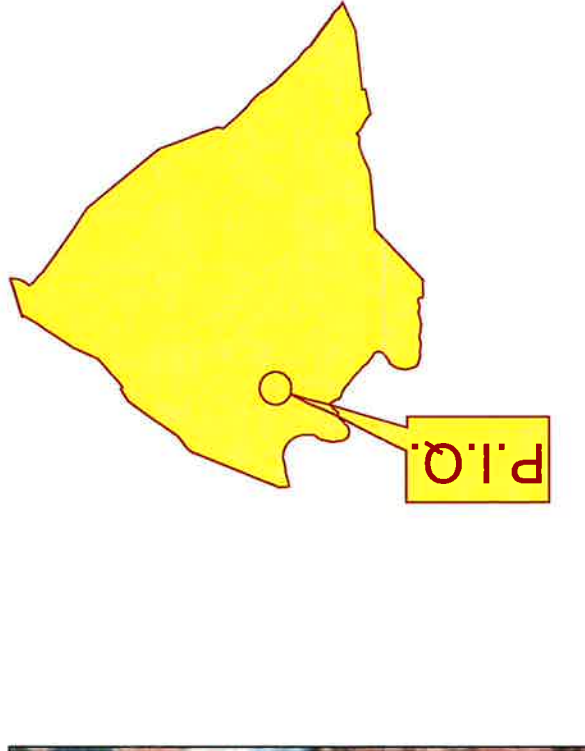
Site Improvement Cost Estimate = \$1,182,600.00 – \$1,419,100.00

Notes:

All field and court construction estimates do not include sports lighting.

This cost estimate is intended for use as a planning tool and actual construction costs will vary.

0' 50' 100' 200'



P.1.0.

CONCEPTUAL IMPROVEMENT COST ESTIMATE FOR

LOT 1, BLOCK 4601 – 3.4 ACRES BRAYTON ELEMENTARY SCHOOL

Site Location

Brayton Elementary School is located at the southwest corner of Ashland Avenue and Tulip Street, known as Lot 1, Block 4601 on the city tax map. The school adjoins the recreational facilities of Cornog Field House and Memorial Field, to the west.

Recommended Site Improvements

The existing three (3) tennis courts of the Brayton Elementary School are in essence part of the Cornog Field House recreational site and the larger Memorial Field Park recreational facility. The outdoor recreational amenities existing at the site are limited to a tot lot area, located at the corner of Ashland Avenue and Tulip Street, and a paved play court located at the center of the school site.

The concept plan identifies the construction of an additional tennis court. This improvement combined with the currently existing 3 three (3) tennis courts, and the court improvements at the Cornog Field House property will provide a bank of ten (10) functioning tennis courts at this Memorial Field Park facility. The addition of the five (5) courts at Tatlock Center will provide a total of fifteen (15) operational municipal tennis courts and will satisfy the tennis needs of the City of Summit.

Also identified on this concept plan is the recommended realignment of the existing parking lot along the frontage of Ashland Avenue. The new alignment will afford the existing parking lot a better quality of traffic circulation as well as increase the available parking spaces for the Cornog recreational amenities.

Site Improvement Cost Estimate = \$27,200.00.00 - \$32,600.00

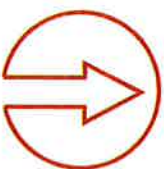
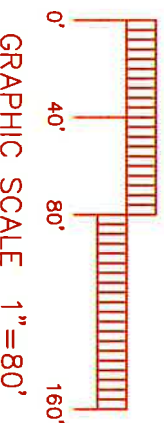
Notes:
All field and court construction estimates
do not include sports lighting.

This cost estimate is intended for use as a
planning tool and actual construction costs will vary.



Brayton Elementary School

City of Summit, Union County, New Jersey



Lot 1, Block 4601
Park Dedication: Circa 1928
Tract Size: 3.4 Acres
Developed Area: 3.4 Acres



CONCEPTUAL IMPROVEMENT COST ESTIMATE FOR

LOT 2, BLOCK 4601 – 3.2 ACRES CORNOG FIELD HOUSE

Site Location

The Cornog Field House and the Board of Recreation Maintenance Building is owned by the City of Summit, known as Lot 2, Block 4601 on the city tax map. It is located east of Memorial field along Ashland Avenue and is bordered by Brayton School to the east, Myrtle Avenue to the south and is considered as part of Memorial Field Park.

Recommended Site Improvements

The existing field house is a historical field stone structure that adds identity and exceptional character to the Memorial Field Park area and functions as a limited locker room and meeting room facility for various sport groups and recreational functions. The rectangular shaped parcel also contains a significant lot, a tennis court facility, a basketball court, a handball court, a maintenance building, and limited parking lot facilities.

The existing tennis court facilities are divided between the Cornog Field House site and the Brayton school site. Two tennis courts were eliminated over the years and since have been rendered non-playable and unsafe for tennis. A basketball court at the site was also removed several years ago because subsurface conditions rendered the playing surface unusable.

It is recommended that the existing tennis courts at this site be refurbished and reconstructed to serve as the hub for tennis activity in the City. The concept plan identifies the reconstruction of two past ice rink area to provide for the reestablishment of the lost tennis court and the addition of two new tennis courts to be located over the removed basketball court and the handball court. These improvements combined with the tennis court improvements on the Brayton school property will provide a bank of ten (10) functioning tennis courts. This facility of ten (10) courts plus the five (5) courts at Tatlock Center will satisfy the tennis needs of the City of Summit.

Because the site of the basketball court that was removed will be used for one of the tennis courts, it is recommended that two new basketball courts be constructed and located north of the existing tot lot area. The remaining lawn delineated by the existing Brayton School, existing Cornog Field House, the new basketball courts and the reconstructed tennis courts, should remain undisturbed and function as open space lawn for Brayton school students as well as the surrounding Summit residents.

CORNOG FIELD HOUSE (Cont.)

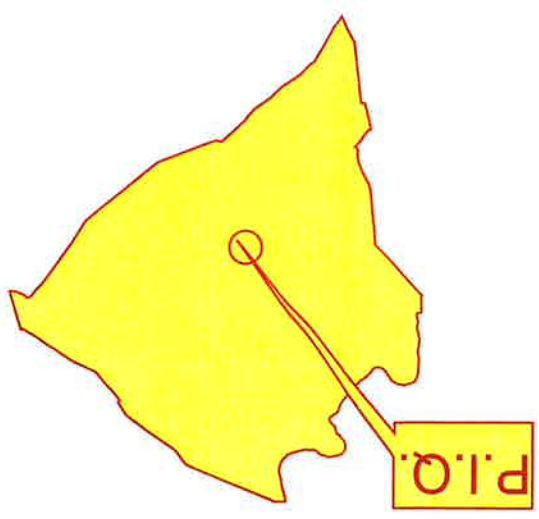
The existing Recreation Department Maintenance building is in a state of disrepair and serves only a limited function to the Summit Recreation Department. The maintenance functions and facilities currently at the site can be consolidated within other operations and facilities of the Department of Community Services elsewhere in the City. It is recommended that the maintenance building be removed and the area be renovated to provide additional parking facilities with improved traffic circulation for the new and existing amenities. In addition to the existing parking lot expansion it is recommended that a new parking lot be constructed on this parcel and is identified on the concept plan and located along Ashland Avenue. The new and expanded parking lots can provide an additional 52 parking spaces to this recreational facility.

Site Improvement Cost Estimate = \$590,850.00 - \$708,400.00

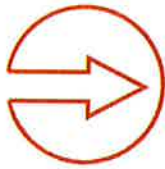
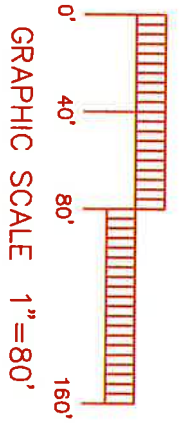
Notes:

All field and court construction estimates do not include sports lighting.

This cost estimate is intended for use as a planning tool and actual construction costs will vary.



Cornog Field House
City of Summit, Union County, New Jersey



Lot 2, Block 4601
Park Dedication: Circa 1928
Tract Size: 3.2 Acres
Developed Area: 3.2 Acres



CONCEPTUAL IMPROVEMENT COST ESTIMATE
FOR
LOT 3, BLOCK 4601 – 16.7 ACRES
MEMORIAL FIELD

Site Location

Memorial Field is a 16.7-acre city owned park and is known as Lot 3, Block 4601 on the city tax map. It is located in the southern portion of the City on Ashland Avenue, and is bordered by Clearview Drive to the west, Parkview Terrace to the south and Larned Road and the City of Summit's Board of Recreation Building, Cornog Field House, to the east.

Recommended Site Improvements

The existing recreational field amenities at this location consist of two shared, little league ball fields located within a non-regulation gravel running track and a late 1950's, concrete, roller skating oval, located on the northern half of the site. The southern half of the site contains a multipurpose senior baseball field with a regulation sized soccer field sharing the outfield area, and a stand alone regulation sized soccer field located along the southern property boundary.

The southern half of the site functions well as a multipurpose field. The existing soccer fields will need to be adjusted to allow for the conversion of the southerly soccer field into a larger multipurpose play field that would provide for a variety of play field sport uses. The recommended adjustments would require limited labor consisting of only of new field striping to identify field limits. With the implementation of the new striping this field would accommodate soccer (195' x 330'), field hockey (180' x 330'), boys lacrosse (180' x 330') and girls lacrosse (210' x 330'). The proposed reconfiguration could also accommodate football (160' x 360'), though this use may not be desired at this location. An adequate 30' safety run-out area can be provided around the play fields, provided the run-out between the two fields is shared. Field hockey and lacrosse at levels above the sixth grade are not currently played at Memorial Field and would require the installation of fencing to protect spectators and passersby.

The shared use of the two existing baseball fields, on the northern half of this park site invites safety concerns related to player collisions during practices, if used simultaneously. The City's recreation department has indicated that the dual use of the fields is not permitted. During game events only one field is occupied. Although practices can be considered less intensive than actual games, user safety should always be considered. It is recommended that the existing orientation of the two baseball fields be redesigned to locate the outfields away from each other allowing for dual use. It is also recommended that the resulting area of the new combined outfield be utilized as a multipurpose play field whereby making field use safer and expanding the facility's functionality. The recommended concept plan demonstrates the new ball field orientation and incorporated multipurpose play field. It should be noted that while permitting the simultaneous use of the two

MEMORIAL FIELD (Cont.)

baseball fields, the recommended reconfiguration would not permit the use of the multipurpose field while the baseball fields are in use. With the implementation of this design the existing non-regulation track will require reconstruction and relocation creating a longer track length. Additionally it is recommended that the new gravel track be expanded to contiguously loop around the perimeter of the entire facility providing greater workout opportunity and a pedestrian/bicycle linkage to the park as an alternate mode of transportation.

The expansion of the gravel running track will also require the elimination of the existing shuffleboard courts located on the east side of the track. It is recommended that the shuffleboard courts be reconstructed on the adjoining Cornog field house side of this recreational park facility.

As determined by field observations and a review of the sites amenities, the existing concrete roller-skating oval is underutilized and has become obsolete to the new skating genre of the City. Considering the facility requirements of a new skating generation, it is recommended that the existing oval rink be removed and a new state of the art skate park be constructed. The new skate park area will require expansion of the space currently occupied by the existing location of the oval rink to accommodate a minimal sized skate park (10,000 sf minimum). This location will also afford high visibility for security purposes.

This area of the park does not contain any parking facilities. It is recommended that vehicle parking spaces be constructed to serve this section of the recreational complex. The concept plan proposed identifies the construction of 20 parking spaces shown as 90 degree angled, on-street parking, located along the existing paved, public roadway of Larned Road. Singularly, this minimal amount of parking is not adequate for the facility; therefore other parking for the park should be considered and is identified on the Cornog Field House plans that in combination make up the complete Memorial Field recreational area.

Site Improvement Cost Estimate = \$1,145,100.00 - \$1,374,100.00

Notes:
All field and court construction estimates
do not include sports lighting.

This cost estimate is intended for use as a
planning tool and actual construction costs will vary.

Memorial Field

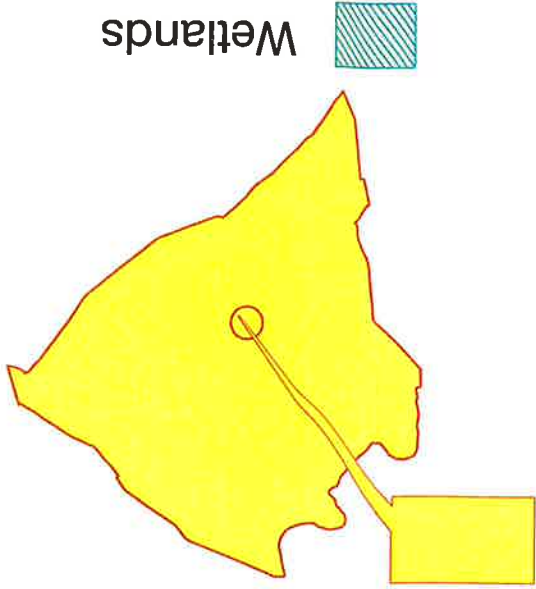
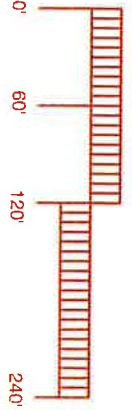
City of Summit, Union County, New Jersey



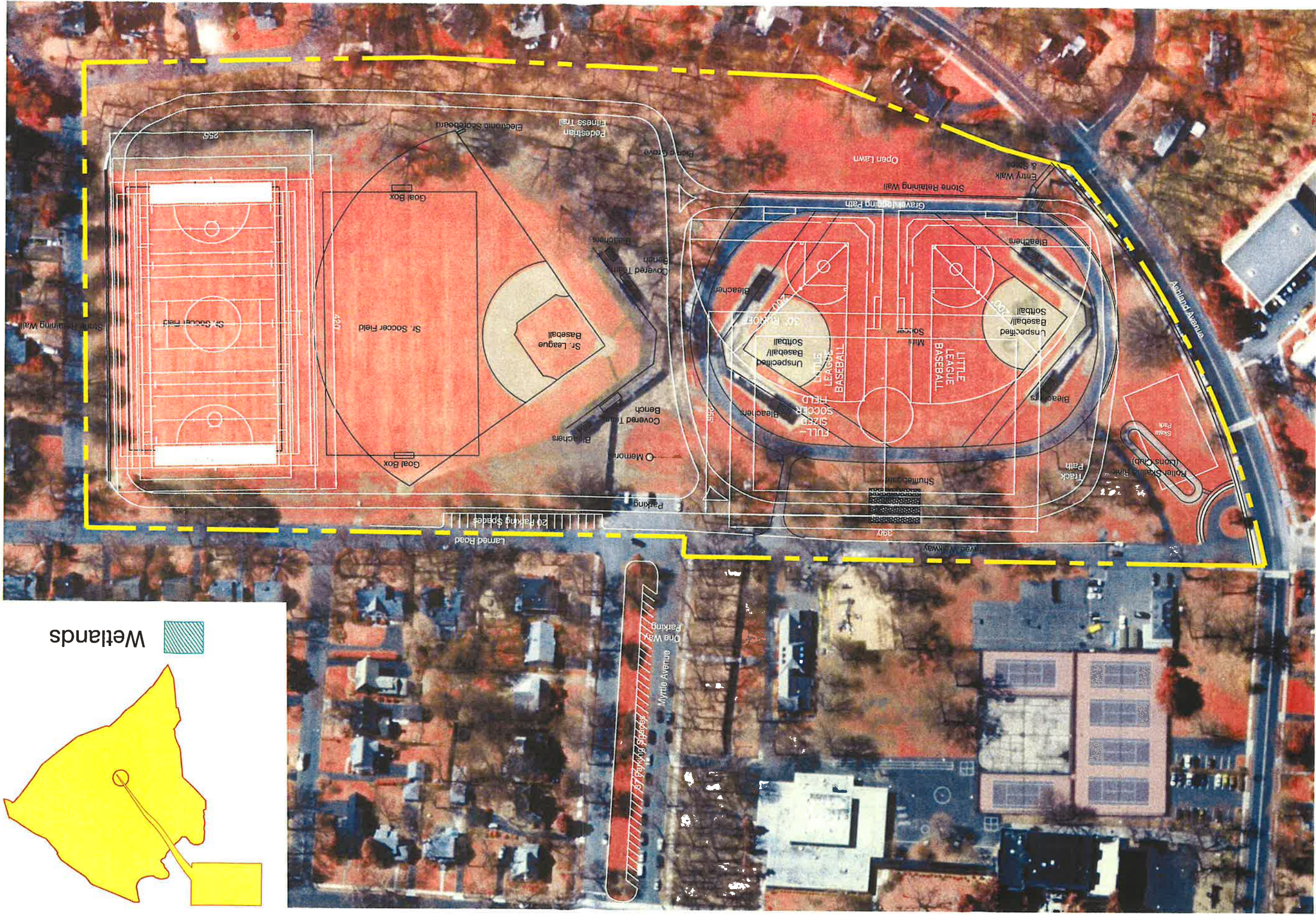
Lot 3, Block 4601
Park Dedication: Circa 1930
Tract Size: 16.7 Acres
Developed Area: 16.7 Acres



GRAPHIC SCALE 1"=120'



Wetlands



CONCEPTUAL IMPROVEMENT COST ESTIMATE
FOR
LOT 42-46, 48, BLOCK 1702 – 10 ACRES
WILSON PARK

Site Location

Wilson Park is owned by the City of Summit and is known as Lots 43, 46 & 48, Block 1702 on the city tax map. The park is located off Oakley Ave. between Springfield Ave. and Beekman Terrace in the western part of the City. The Wilson Park site adjoins Wilson elementary school to the south and contains the out parcel of Summit Red-Cross located along Springfield Avenue. The undeveloped lands of this site are generally wooded providing a mature shade tree canopy.

Recommended Site Improvements

The Wilson Park site is an existing recreational facility that offers two areas of active recreation; both areas adjoin the existing Wilson elementary school property lines. The southeast corner of the park, adjoining the easterly school property line, contains a bank of six (6) tennis courts, a bank of two (2) raised platform tennis courts, a basketball court, a play lot, and a small building structure providing limited bathroom facilities. The northern portion of the park, adjoining the northern school property line, contains a multi purpose senior league baseball field, batting cage, and a play field area. The northern perimeter of the park, fronts on Oakley Avenue and contains existing woodlands with mature shade trees and Summits display garden featuring varieties of rhododendrons and other plant species.

The present configuration of the park limits the ability to provide additional active recreational field amenities. The existing tennis facilities at the site are not utilized by the City because of the unsafe condition of the court surface and have been the focus of engineering and structural reports, which identify subsurface conditions that would require the courts be completely reconstructed rather than resurfaced in order to be playable. The additional tennis courts proposed at Tallock Center, Cornog Field House and Brayton Elementary School provides 15 municipal tennis courts for the City's use to satisfy the intended needs. It is recommended that the existing tennis facility at this park be removed without replacement. The concept plan identifies the removal of the existing six (6) tennis courts and the utilization of that area as an open play field for school use and general lawn area for Summit residents and park users. The existing raised paddle tennis courts are in fair condition and currently maintained in an operational condition and should remain undisturbed. The play lot structures are available for children using the school facilities and other residents. The structures and equipment are out-dated and worn, it is recommended that the play area be renovated to enhance aesthetic appearances and meet current safety requirements. Further it is recommended that the existing basketball court in this area be removed and relocated to the northern end of the park and that the play lot expanded.

WILSON PARK (Cont.)

The conceptual plan proposes additional parking spaces within the existing parking lot of the Wilson school. An additional 20+ parking spaces are recommended with the expansion at the north end of the lot. The recommended parking lot expansion utilizes a portion of the existing play lot area and provides justification for the enhancement of the play lot as previously identified.

The northern area of the park contains the multi purpose play field. It is recommended that the baseball field be slightly adjusted to allow for the expansion of the existing playfield area to support a variety of sport field sizes and increase the sites functionality. The baseball field should be relocated approximately 60 feet to the east and 20 feet to the north, thus situating the infield of the ball field outside of the enlarged playfield area and providing an uninterrupted and uniform turf surface. It is suggested that the ball field be enlarged to provide a 300-foot outfield with a 360-foot pocket and the play field enlarged to accommodate football, soccer, lacrosse, and field hockey regulation dimensions.

Additionally, the northern end of the park in the wooded area of the existing Oakley Avenue road frontage is recommended for new facility improvements, which will add to the existing recreational inventory of the City. It is recommended that a satellite parking lot be constructed just north of the existing Red-Cross out parcel site to serve the additional recommended improvements consisting of 2 basketball courts, a new comfort building, a play ground area, and a new picnic area near the existing display garden. The access for the proposed parking lot should be provided via the existing ingress and egress of the Red-Cross site. These recommendations are premised on the assumption that the City can negotiate the access agreement with through the existing site with the caveat of providing existing parking lot improvements and expansion that would benefit both sites uses.

Finally, all the facility improvements should be connected by a pedestrian path system that will link the site recreational features with the existing and proposed parking lots as well as providing an alternate access route from Oakley Avenue.

Site Improvement Cost Estimate = \$1,051,300.00 – \$1,261,560.00

Notes:

All field and court construction estimates do not include sports lighting.

This cost estimate is intended for use as a planning tool and actual construction costs will vary.



0' 60' 120'

GRAPHIC SCALE



CONCEPTUAL IMPROVEMENT COST ESTIMATE FOR

LOT 49, BLOCK 3004 – 6.4 ACRES FRANKLIN ELEMENTARY SCHOOL

Site Location

Franklin Elementary School is located at the corner of Blackburn Road and Warwick Road, known as Lot 49, Block 3004 on the city tax map. The school is located in the western portion of the City.

Recommended Site Improvements

The recreational opportunities at the Franklin Elementary School site are limited to an existing multipurpose little league baseball field and a regulation sized soccer field, two swing set play structures, two play lots, a tot lot, and a paved play court area. The existing fields have been shut down due to the field conditions.

Summit High School girls lacrosse team, Summit Lacrosse Club, and Summit Soccer Club currently utilize the multipurpose field in the spring. Summit High School girls soccer and the Summit Soccer Club use the multipurpose field in the fall. The baseball field is in disrepair and is not currently utilized by any of the Summit organized athletic leagues. The existing arrangement of the multipurpose field places the clay infield of the baseball field within the playing area of the multipurpose field.

The concept plan identifies reconstruction of the existing baseball field, shifting the field to the west and shifting the soccer field to the east, allowing full use of both fields without interference of the clay infield. While the conceptual plan does present the benefit of restoring the baseball field to the City's active field inventory, it should be noted that the use of the restored baseball field would conflict with the use of the multipurpose field in the spring for lacrosse and soccer. Since the lacrosse and soccer programs are heavily dependent upon access to Franklin, the use of the baseball field in the spring may be limited. It should also be noted that the limited dimensions of the restored baseball field and its orientation on the site, may create a potential hazard with the close proximity of Blackburn Road and the play area next to the school building. Protection from batted balls should be considered.

Since Franklin Field is currently out of service due to its deteriorated condition and the field does not have irrigation or drainage, it is recommended that the City consider the installation of a synthetic surface, which will extend and improve available field time and field quality. If the existing baseball field is also reconstructed, consideration should be given to install the synthetic surface to cover the entire outfield, since it overlaps with the multipurpose field.

FRANKLIN ELEMENTARY SCHOOL (Cont.)

Additionally, it is recommended that one new basketball court be constructed on this site, located in the open lawn area along Warwick Road. The addition of this new court will add to the recreational inventory of the City and will more evenly distribute recreational and organized basketball opportunities. The remaining existing recreational amenities are currently utilized by the Franklin School students and should remain undisturbed.

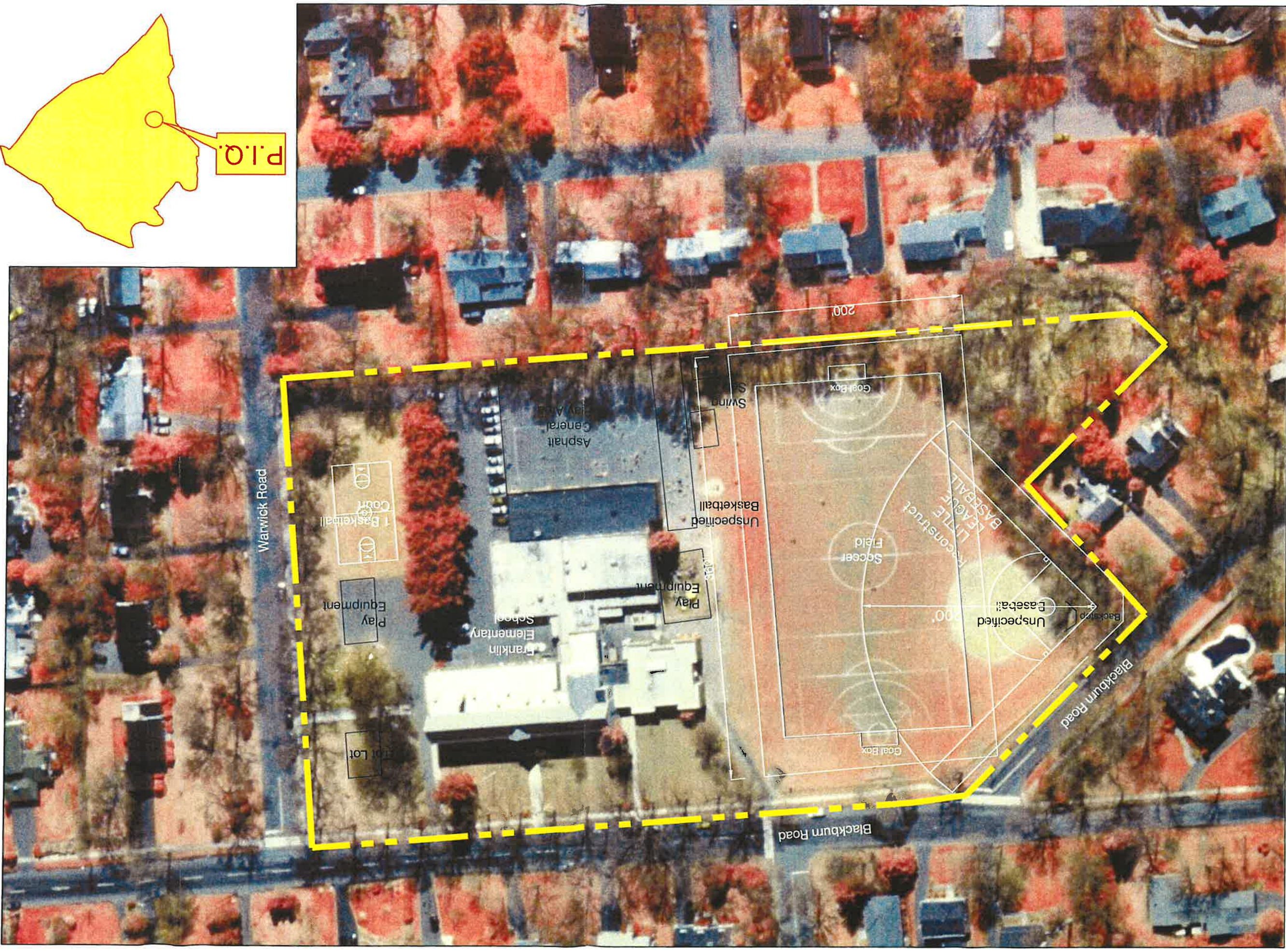
Site Improvement Cost Estimate = \$1,129,820.00 - \$1,155,784.00

Notes:

All field and court construction estimates

do not include sports lighting.

This cost estimate is intended for use as a planning tool and actual construction costs will vary.



CONCEPTUAL IMPROVEMENT COST ESTIMATE FOR

LOT 25, BLOCK 4301 – 8.4 ACRES JEFFERSON ELEMENTARY SCHOOL

Site Location

Jefferson Elementary School is located adjacent to the Summit Community Pool on Ashwood Avenue and Hidden Valley County Park, along the southern boundary of Summit, known as Lot 25, Block 4301 on the city tax map.

Recommended Site Improvements

The existing Jefferson elementary school property is considered to be the premier field of the Summit Junior Baseball league. This league almost exclusively occupies the facility every day of the week in the spring for practices and games. Considering the extensive utilization of the field it is imperative that the field remain functional.

The addition of a multipurpose field suitable for soccer (195' x 330') and field hockey (180' x 330') field is recommended. This would permit this site to be used in the fall season. The ball field does not utilize an outfield fence line and therefore lends itself to the suggested multipurpose field use. The existing light poles would require relocation; additional lights could be added, if desired, to provide adequate lighting for the proposed field. Tree removal will be required along with topographic grading of the play field to ensure adequate storm drainage and a safe playing surface. With the addition of the multipurpose field, the existing batting cage structure will be relocated from the left field line to a location alongside of the existing bullpen, northwest of the ball field.

The addition of a formal basketball court is recommended as an overlay of the existing paved play court area located on the west side of the ball fields backstop. In addition to one full basketball court, the existing pavement area can accommodate one half court for basketball use.

The existing play area located along the right field foul line of the existing ball field should be relocated away from the foul line to provide separation and safety from erroneous foul balls. It is recommended that the play area and existing play equipment be relocated to the west side of the new basketball court area and north of the existing lot. This new arrangement of the play areas will provide added safety for the users, functional continuity with user age groups, and convenience for parental supervision. Within the newly designed play area additional lot lot equipment and structures are recommended for enhanced use and enjoyment of the users.

JEFFERSON ELEMENTARY SCHOOL (Cont.)

In conjunction with any renovation of this site, the addition of permanent restroom facilities is strongly recommended.

The relocation of the play area requires the relocation of the existing picnic area west of the new basketball courts. It is recommended that the picnic area and associated site furnishings be relocated into the remaining woodlands just north of the play area, near the Summit Community Pool entrance road. Considering the close proximity to the traveled way, additional traffic safety barriers should be considered to provide a physical separation between the two uses.

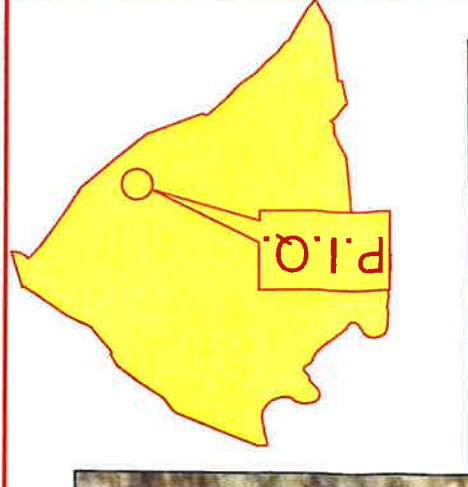
The Board of Education has agreed to address the entrance to the Community Pool with the entrance to Jefferson School.

Finally, the proposed incorporation of an accessible pedestrian/bicycle path is recommended to support an alternate mode of transportation between the recreational facilities at Jefferson School and those of the Community Pool site.

Site Improvement Cost Estimate = \$432,925.00 - \$519,600.00

Notes:
All field and court construction estimates do not include sports lighting.

This cost estimate is intended for use as a planning tool and actual construction costs will vary.



CONCEPTUAL IMPROVEMENT COST ESTIMATE FOR

LOT 1, BLOCK 1902 – 6 ACRES LINCOLN – HUBBARD ELEMENTARY SCHOOL

Site Location

Lincoln-Hubbard Elementary School is located on Woodland Avenue between Crescent Avenue and McGregor Place, known as Lot 1, Block 1902 on the city tax map. The Lincoln Hubbard School is located in the center of Summit, east of the Summit High School.

Recommended Site Improvements

The recreational opportunities at the Lincoln-Hubbard Elementary School site are limited to an existing little league baseball field, two play lot areas, a non-regulation sized basketball court, and a paved play court area.

The recommendations for improving the existing recreational opportunities at this location are limited to upgrading of existing amenities only due to the limited available open space. It is recommended that the existing tot lot and the non-regulation sized basketball court area be removed and relocated in other appropriate onsite locations. The removal and relocation of these two amenities will allow for a clear and unobstructed outfield for the existing little league baseball field.

The existing tot lot equipment should be upgraded and relocated into the currently existing play area located north of the existing asphalt play court.

The existing non-regulation sized basketball court should be relocated out of the baseball field outfield and reconstructed along the westerly property line of the school site, west of the existing asphalt play area.

Site Improvement Cost Estimate = \$76,800.00 - \$92,200.00

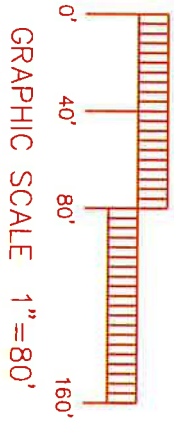
Notes:
All field and court construction estimates
do not include sports lighting.

This cost estimate is intended for use as a
planning tool and actual construction costs will vary.



Lincoln-Hubbard Elementary School

City of Summit, Union County, New Jersey



Tract Size: 6 Acres
Lot 1, Block 1902



CONCEPTUAL IMPROVEMENT COST ESTIMATE FOR

LOT 13, BLOCK 1302 – 18.3 ACRES SUMMIT HIGH SCHOOL

Site Location

The Summit High School is located on Kent Place Boulevard between Colonial Road and Morris Avenue, known as Lot 13, Block 1302 on the city tax map.

Recommended Site Improvements

The existing recreational field amenities at this location consist of two separate areas containing fields commonly referred to as: the upper field and the lower field. These fields were reconstructed by the Board of Education in 2001, with drainage and irrigation being installed. The topographic character of this site contains a steep slope between the two multipurpose fields. The upper field is comprised of a baseball field, an overlapping multipurpose field and a perimeter-jogging track. Although the High School freshman team uses the baseball field, the field is of non-regulation size, with the following dimensions: right field 300 feet; left field 287 feet and center field 330 feet. Regulation dimensions are: 300 feet left and right field and 350 feet center field.

The lower field is comprised of a junior ball field (200' outfield) and a multipurpose play field. A review of the current field arrangements revealed that additional play field facilities are not possible within the limitations of the sites boundaries. Although the conditions of the existing multipurpose fields could be improved through renovation/reconstruction work, additional fields are not feasible and reconstruction of the ball fields to obtain a more appropriate orientation is not considered economically practical.

Considering the spatial constraints of the site and the already maximized field design, the recommended improvements for this site are limited to minor amenities. A play lot area may be at the southeast corner of the site near Morris Avenue. The play lot would service the fields of the high school when they are utilized by Summits youth sport organizations and nearby residents. It is noted, however, that the available location and access for such a facility is not ideal.

An accessible pedestrian path is recommended to extend from the existing jogging path at the upper field to the southern end of the site and Morris Avenue. The pedestrian route will afford the High School property complete access from all surrounding public street and provide the pedestrian/bicycle link described in this report. Public access to the site from Morris Avenue should also be considered.

SUMMIT HIGH SCHOOL (Cont.)

Site Improvement Cost Estimate = \$98,650.00 - \$118,400.00

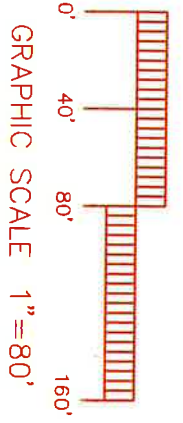
Notes:

All field and court construction estimates
do not include sports lighting.

This cost estimate is intended for use as a
planning tool and actual construction costs will vary.

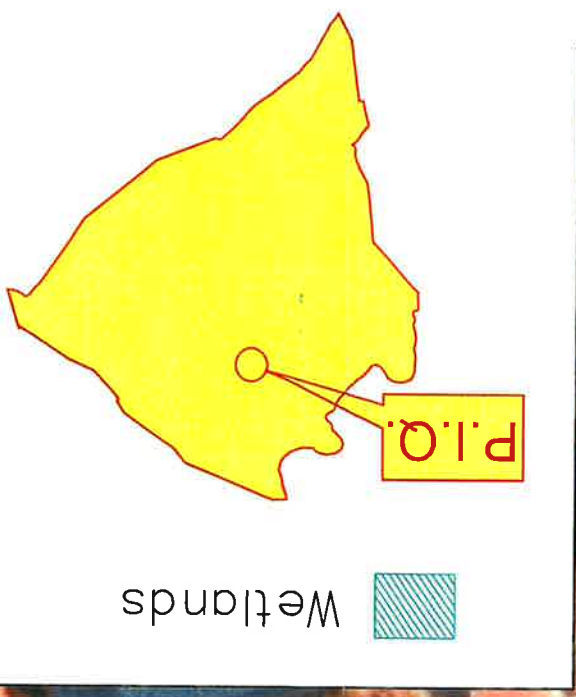


Lot 13, Block 1302
Tract Size: 18.3



Summit High School

City of Summit, Union County, New Jersey



CONCEPTUAL IMPROVEMENT COST ESTIMATE FOR

LOT 41, BLOCK 4301 – 11.1 ACRES SUMMIT COMMUNITY POOL

Site Location

The Summit Community Pool is an 11.1-acre site owned by the City of Summit, known as Lot 41, Block 4301 on the city tax map. The site is located on Ashwood Avenue, between Baltusrol Road and Michigan Avenue. The pool site adjoins Jefferson School to the southeast and is generally located in the southeast corner of the city.

Recommended Site Improvements

At the outset it is acknowledged that the recommended recreational opportunities at this site are considered aggressive and will undoubtedly require significant budgetary review by the City. The intent of the concept plan for this parcel is to identify the potential for recreational improvements. The most limiting factor of this site is the existing steep topography and the density of the mature woodlands that currently surround the existing recreational amenities.

The recommended improvements include the construction of two little league baseball fields, to be located along the southern property line of the site, one regulation sized basketball court, to be located on the south side of the existing pool building, and one multipurpose play field to be located on the east side of the existing pool and extending into a wooded parcel of land to be acquired by the City. The proposed field improvements would be situated on a raised terrace, above and at the perimeter of the existing pool facility. With the inclusion of these new facilities, it is suggested that the existing parking lot, approximately 250 vehicle spaces, be reconstructed.

To adequately construct these proposed additional recreational amenities, the areas of existing mature woodlands will have to be removed along with the construction of a significantly sized retaining wall and grading work will also be required. The plan proposes the removal and grading of approximately 7 acres of woodlands and the construction of a continuous 8 feet to 10 feet high retaining wall, approximately 850 linear feet.

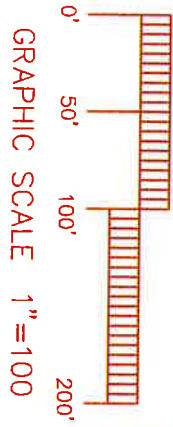
Site Improvement Cost Estimate = \$1,566,000.00 - \$1,880,000.00

Notes:
All field and court construction estimates
do not include sports lighting.

This cost estimate is intended for use as a
planning tool and actual construction costs will vary.



Tract Size: 11.1
Lot 41, Block 4301



Summit Community Pool

City of Summit, Union County, New Jersey



P.I.Q.

NOTE: Objects in blue indicate an Aggressive Design Approach.

Field Maintenance Program

Appendix E

SUMMIT BOARD OF RECREATION

**SCHEDULE OF MAINTENANCE FOR THE FACILITIES AND ATHLETIC FIELDS
OF THE DEPARTMENT OF RECREATION**

AND

**SCHEDULE OF MAINTENANCE FOR THE ATHLETIC FIELDS
OF THE SUMMIT BOARD OF EDUCATION**

PREPARED BY

**CHRISTOPHER HOLENSTEIN
MAINTENANCE AND PROJECT MANAGER
SUMMIT BOARD OF RECREATION**

March, 2004

It is the objective of this plan to provide a schedule of the routine maintenance activities that are necessary to maintain the athletic fields and grounds of the Board of Recreation and the athletic fields of the Board of Education, in a condition fit for the staging of interscholastic and recreational sports competitions.

OBJECTIVE:

With an emphasis on turf grass management as the primary key to maintaining safe, well-performing athletic fields, these facility schedules provide a framework of operations that are to be performed by Recreation Department staff on a daily, weekly and monthly basis. The operations listed for each facility are both general and specific; general in terms of basic agronomic practices, and specific relative to site characteristics, soils analyses, sports schedules and frequency of use. The manpower analyses that accompany each facility schedule are based on historical time data and estimations of the time needed to accomplish each task, extrapolated to determine the number of staff needed to perform the entire maintenance program. The accompanying material cost data have been compiled for budgetary purposes, and are meant to portray average costs of commonly used maintenance materials. Actual costs will vary as efficiencies are realized and usage rates, based on need, fluctuate. Actual materials used may vary in response to specific site needs.

The maintenance program lists many field operations that have historically been performed by department personnel, such as mowing, infield maintenance and field lining. Additional operations previously not performed have been added to the maintenance plan to improve field conditioning. The frequency of all operations is listed within the schedules, many at higher rates that are reflective of the increased usage of the fields and dictated by the agronomic principles of turf grass maintenance.

In an effort to reflect the diversity of tasks currently performed by the Recreation Department staff, including maintenance of the Municipal Golf Course and the Community Pool, and operation of the Summit Recreation Center, many non-field operations are listed in the program schedule. The listed non-field operations are by no means all-inclusive, but are presented to provide balance to the program. Non-routine tasks such as snow removal and severe storm cleanup are not reflected in the analyses, as these operations are handled on an as-needed basis with non-specific staff. Time spent to address these types of events divert staff from routine operations, adding to the work load until things return to "normal". Likewise, because all field maintenance activities are affected by adverse weather, all schedules are subject to change according to field conditions and game scheduling. Furthermore, with respect to Tatlock Field and Washington School Field, the scheduled assumes that such facilities, for the time being will be natural turf surfaces.

It is the intention of the Recreation Department to provide suitable conditions for field use by performing the operations necessary to maintain the fields. This includes restricting the use of the fields at times when such use would cause excessive damage. The maintenance plan provided here will, in time, improve the resiliency and wear tolerance of the fields through improved drainage, increased turf grass vigor and enhanced recuperation from damage. This plan, with the efforts of a dedicated, capable staff, should result in improved playing conditions at all athletic facilities.

INTERPRETATION:

The following is an explanation of the terms and format of the facility maintenance schedules. The basic layout of each facility's schedule includes a list of maintenance operations to be performed, with the frequency each operation is scheduled each month. Each operation has an estimated time required for one occurrence to be completed. The total hours estimated to complete all scheduled occurrences is calculated, with the total hours per month displayed. The number of staff required to complete these operations is computed based on the available hours per man per month. All facilities are then totaled together to determine department staffing needs for the entire program.

Many of the basic operations are common to all the facilities. Site-specific variations, such as equipment type or materials used, occur based on the parameters of each facility. Fields with in-ground irrigation systems are considered "primary" turf and have more inclusive maintenance plans than non-irrigated fields. Each facility plan is based on the type of sports to be played, the existing conditions and limitations of each site, and potential future plans for renovations and improvements.

The schedule of operations for the golf course is unique compared to all the other sites. Brief descriptions of the terms for the golf course schedule are as follows:

Lime Greens: The application of granular lime to the putting greens, using push-type rotary spreaders.

Lime Fairways: The application of granular lime to the fairways, using a tow-behind rotary spreader.

Fertilize Greens: The application of granular fertilizer to the putting greens, using push-type rotary spreaders.

Fertilize Fairways: The application of granular fertilizer to the fairways, using a tow-behind rotary spreader.

Pre-emergent Greens: The application of a pre-emergent herbicide to the greens to inhibit crabgrass seed germination. Various products are available; can be applied as a fertilizer-based product using rotary spreaders, or as a sprayable solution with a turf sprayer.

Mow Fairways Triplex: The mowing of the fairways using a three-cutting-unit riding reel mower. Frequency is three times per week in-season.

Mow Collars: The mowing of the fringe area around the greens, using walk-behind reel mowers. Frequency is two- to three times per week.

Mow Greens: The mowing of putting greens using reel-type walk-behind mowers. Frequency is based on the growth rate of the turf, at a minimum of three times per week in-season. Putting green quality is directly affected by mowing frequency, with increased frequency resulting in higher quality of the putting surface.

Growth Regulator, Greens (and Fairways): The application of turf growth regulators to control the growth rate and habit of turf grass on greens and fairways. Various products are available, usually applied as a sprayable solution, with specific chemistries for specific desired responses.

Spray Round-up, Edges and Tree Rings: The application of a non-selective herbicide to fencelines, mulched areas and tree rings to control weed growth. Applied as a sprayable solution with hand-held or backpack sprayers.

Pre-emergent Beds: The application of pre-emergent herbicides to shrub and ornamental bed areas to control weed growth. Applied as granular or sprayable solution.

Wetting Agent Greens: The application of soil wetting agents to improve the penetration and movement of water through the soil profile of putting greens. Enhances the efficiency of the irrigation system, and helps remove excess water from the soil. Can be applied as a granular or sprayable solution.

Post-emergent Fairways (and Roughs): The application of herbicides to control broadleaf and grassy weeds. Applied by turf sprayer.

Insecticide Greens (and Fairways, and Roughs): The application of insecticides to control over-threshold levels of insects damaging to turf grass on putting greens (and fairways and roughs). Products applied are specific to the target insects, and can be applied as granular or sprayable products.

Fungicide Fairways: Same as above, to fairways.

Fungicide Greens: The application of fungicides to control turf grass diseases. Various products are available, with disease-specific chemistries. Usually applied as a sprayable solution.

Pre-emergent Fairways: Same as above, to fairways.

Mow Rough GM 72: The mowing of the rough areas using a riding rotary 72" deck mower.

Mow Trim Rotary: The mowing of areas inaccessible to the larger mowers, using push-type rotary mowers.

Weedat Trim: The mowing of trim areas using string trimmers where push mowers are ineffective.

Collect Litter, Fenceline, Parking Lot: Clean up of litter along property boundary and in the parking lot.

Spring Cleanup: Hand raking and removal throughout the golf course of winter debris and leftover leaves.

Dragmat Greens: The removal of dew from the putting surface using a hand-dragged net whenever the greens are not mowed in-season. Aids drying of the putting surface for improved disease control.

Remove Goose Droppings, Greens: Self-explanatory; this operation is done prior to dragmattin or mowing on the putting surfaces.

Blow Clippings, Fairways: Removal of excess clippings from fairways with vehicle-mounted leaf blower, as needed.

Aerate, Dragmat, Blow Greens: The labor-intensive practice of core aeration and cleanup of the putting greens to offset soil compaction, and improve water penetration, turf rooting, and soil gas exchange. This operation is done using a self-propelled greens aerator and other specialized equipment, at a minimum of twice per year.

Topdress, Brush Greens: Done in conjunction with core aeration, this process helps smooth the putting surface and control thatch by applying select sand to the greens and dragging with a greens brush to move sand into the aeration holes.

Aerate, Dragmat, Blow Fairways: Core aeration of fairways using vehicle-drawn equipment for similar reasons as above. Soil cores are broken up and dragged into the turf, and remaining debris is blown to the side and removed.

Change Cups: The specialized operation of moving the holes on each putting green to distribute wear evenly across the putting surfaces, and to change the hole location for variety and interest.

Repair Ballmarks: Done prior to mowing and in conjunction with changing cups, this operation is the physical repair of the pitch marks made by golf balls and left

on the putting surfaces by irresponsible golfers. Proper repairs help promote a smoother surface and reduced weed infestations.

Service Ballwashers: Changing of the soap solution inside ballwashers and replacement of dirty tee towels.

Empty Trash Cans: Trash disposal from receptacles on the course, near the pavilion and in the parking lot.

Rake Sand Bunkers: Hand-raking of all bunkers on the course to smooth the surface, reduce compaction and control weed growth.

Edge Sand Bunkers: Cutting of encroaching grass growth to maintain shape and integrity of all bunkers, by hand spade.

Start-up Irrigation: The preparation, filling and testing of the irrigation system at the start of each season. Includes assembly of the pumping station and adjustment of pressure settings, testing for leaks and removal of air from the system.

Set, Adjust Irrigation: Frequent inspection, evaluation and adjustment of the time clock settings for irrigation water management.

Repair Irrigation: Time allocated for repair of leaks, replacement of worn parts and general upkeep of the irrigation system.

Winterize Irrigation: Time allocated for draining and blowing out the system at the end of the season. This operation involves the use of compressed air to blow out each valve, pipe and sprinkler head to prevent freeze damage over winter.

Install Pond Fountains: The placement, anchoring and power connection of the two pond aerators.

Remove, Winterize Pond Fountains: The removal from the pond and preparation for winter of the two pond aerators.

Edge, Weed Beds: The care and maintenance of flower and shrub beds on the course and near the pavilion.

Mulch Beds: The installation of mulch into the flower and shrub beds.

Prune Shrubs and Ornamentals: Hand pruning of shrubs and ornamental trees.

Install Flowers, Tee Boxes: The planting of annuals in raised planters at the tee areas.

Blow Leaves LA: Blow leaves, large area with tractor-mounted blowers to make windrows or piles for removal.

Blow Leaves SA: Blow leaves, small area with push-type or backpack blowers, on greens and other areas inaccessible to larger equipment.

Vacuum Leaves: Removal of leaf piles by truck-mounted equipment for transport to the city recycling area.

Clean Out Drainage Basins: The removal of leaves and debris from storm drain inlets.

Rake and Remove Locust Pods: The cleanup of bean pods fallen from the honeylocust trees present on the course.

Clean Bathrooms, Shop, Storage Area: Housekeeping items for maintenance of public areas and work spaces.

Clean Gutters: Maintenance item of removing leaves and debris from roof gutters.

Paint Woodwork: Off-season maintenance of the facility.

Winterize Fountains, Plumbing: Preparation of the drinking fountains and outside plumbing to prevent winter damage.

Inspect Building, Check Heaters: Off-season inspections to check security of building.

The maintenance schedules of the other Recreation Department facilities have many operations that are similar to the golf course. There are also common features that occur among all the other maintenance schedules. In general, operations that include the word "Field" are performed to the actual playing fields at that facility. Operations that include the word "Surrounds" are performed on the turf areas around the playing fields.

Brief descriptions of these operations are as follows:

Lime Fields: The application of granular lime to playing fields using a tow-behind rotary spreader.

Fertilize Fields (or Surrounds): The application of granular fertilizer using a tow-behind rotary spreader.

Pre-emerge Beds: The application of an herbicide to shrub and flower beds to control weed seed germination.

Overseed Field: The spreading of grass seed into an existing stand of grass. This operation can be done by broadcasting seed over an area prepared for seeding with aerators, or by "drilling" seed into the soil using tractor-powered equipment.

Dragmat Field: The dragging of a steel mat on turf areas to break up aeration cores or to work topdressing into aeration holes.

Aerate Field, Core: Cultivation of turf areas using a hollow-tine aerator. Used when the extraction of soil cores is desired and/or tolerated.

Aerate Field, Solid: Cultivation of turf areas using the solid tine Aeravator or the Blec Groundbreaker, to reduce soil compaction, prepare soil for seeding, or to improve drainage.

Blow Clippings: The removal of excess grass clippings using leaf blowers.

Weedat Trim: Detail trimming operation using string trimmers; also used on steep banks where rotary mowers can't be used safely.

Mow 22: The trim mowing operation using 22" rotary push mowers, used to mow small areas along edges, etc. inaccessible to larger mowers.

Mow Triplex: The mowing operation using the National 70" Triplex Reel Mower on athletic fields that benefit from the better quality of cut from a reel-type mower.

Mow GM 72: The mowing operation using the Toro Groundsmaster 72" deck mowers. Used for mowing open areas on and off fields, and for large area trimming.

Mow Progressive: A mowing operation using the 15' PTO-powered rotary mower, used on some fields and in large open areas. Pulled behind the tractor, this mower is the largest production mower in the equipment inventory.

Spray Growth Regulator: The application of turf growth regulators to control the growth habit of turf grasses.

Wetting Agent (Fields): The application of soil wetting agents to improve the movement of water into and through soil, to improve the efficiency of irrigation.

Post-emerge Fields (or Surrounds): The application of a selective herbicide to control existing broadleaf weeds.

Pre-emerge Fields (or Surrounds): The application of an herbicide to control grassy weed seed germination.

Shape, Condition Infield: The initial edging and shaping of the skinned infield portion of a baseball or softball field to maintain the dimensions of the infield. This operation also includes the mixing of special infield conditioners into the infield soil mix to manage soil moisture levels and inhibit the hardening of the skinned areas.

Edge Skinned Areas: Maintenance edging to keep infields at the proper dimensions.

Drag and Rake Skinned Areas: The daily raking and grooming of the skinned infield to smooth and level the infield mix in preparation for games.

Fill Holes, Clay Areas: Additional infield work that involves filling in and smoothing the holes that develop around home plate, the pitcher's mound and other areas on the infield.

Add, Spread Infield Mix: The addition of new infield mix to a skinned infield to replace material lost by runoff, wind, etc. Part of the ongoing work to prevent and eliminate puddle areas.

Roll Ballfield: Use of a tow-behind roller to smooth turf or skinned areas, useful in reestablishing good soil contact of turf after winter frost-heaving.

Paint Lines, Initial Setup: Applies to all sports, this is the operation where the initial layout of a field is done in preparation for lining. This involves finding corner points, and measuring out all the dimensions of the playing fields for each sport each season.

Paint Lines, Repeat: This is the reapplication of painted lines to the fields, usually done by following the existing lines on the field. Occasionally the field needs to be re-measured due to loss of the visible lines from wear, rain or mowing.

Empty Trash Cans, Pick Up Litter: The job of collecting and disposing of litter and trash from all the receptacles located at each facility.

Inspect Playground Equipment: Visual safety inspection of playground equipment for early detection of wear, vandalism and breakage.

Rake Playground Surface Material: Hand-raking of Wood Carpet back into kicked-out holes around playground equipment and under swings to maintain the safety features of the material.

Replenish Playground Surface Material: The addition of new material in the use zones of playground equipment to maintain the necessary depth of the safety surface.

Replenish Sandbox Sand: The replacement of sand into sandboxes at the playgrounds.

Blow Paddle Tennis, Basketball Courts, etc.: The cleaning of these sports areas using powered blowers to remove leaves, acorns, twigs and other debris.

Prune Shrubs and Ornamentals: Hand pruning of ornamental trees and shrubs in landscaped areas.

Leaf Blowing and Vacuuming: Leaf removal using powered blowers and the large truck loader vacuum; also involves transport of collected leaves to the City's recycling area.

Topdress Fields: Planned operation using the new large area topdresser, to spread select sand onto the athletic fields for soil modification, thatch control and drainage improvements.

Building maintenance items are listed in all the schedules where they apply. These items involve daily cleaning of bathrooms, offices and other public spaces indoors. Many of the painting and repair items are listed for off-season periods when field work is not going on. Due to the intensity of use of all the facilities, this work is an important part of the maintenance program. Additional work accounted for in the plan is the set-up and break-down of rooms for meetings and rentals, and the time devoted to the Recreation Department Showmobile, which is used at many events within the City of Summit and in surrounding towns. The "Miscellaneous" schedule accounts for vacation, sick, personal time and holidays as "non-productive" time in the sense that field maintenance work is not being done. This schedule also accounts for the indirect time associated with running errands, delivering flyers, picking up repair parts, holding staff meetings and safety training sessions, etc.

Some of the line items are unique to certain facilities. For example, "July 4th, Fireworks Preparations" shows the time allocated for the preparation and maintenance of Memorial Field for the Independence Day festivities. "Maintain Bocce Courts" is a line item of maintenance on the Mabie Playground Schedule.

As with the Golf Course Maintenance Schedule, the Community Pool requires unique maintenance services. Some of the line items appearing on the Pool Schedule include:

Clean Pools: The intensive operation involving the preparation of the two pools for opening season.

Filter Preparation, Spring: Again, preparation of the filtration systems for opening.

Pressure Wash Decks: Cleaning of the concrete decks around the pools.

Clean, Set Deck Furniture: The preparation and movement of all tables, chairs and umbrellas for the season.

Finally, the available resources to implement this plan will dictate its success. The performance of an athletic field is dependent on many related factors, and all factors must be addressed. The limiting factors will be those items not provided for either by manpower availability or funding for materials. It is through this comprehensive plan that these factors have been identified. It is through a concerted effort by a well-equipped, trained and dedicated staff that this plan will succeed.

The maintenance plan presented in this document has been prepared to account for many of the diverse tasks undertaken by the Recreation Department staff. It is, in effect, a "living" document that will be modified as necessary to adjust maintenance practices with time, based on the results achieved. The intensity of the maintenance to be performed on the playing fields as presented in this plan is designed to reflect the minimum level of care necessary to ensure acceptable field conditions for use by the athletes under current use levels. This maintenance plan is not meant to be a substitute for reconstruction or renovation if existing conditions are realistically beyond improvement through maintenance practices alone.

CONCLUSION:

The Building Maintenance items at the pool include the cleaning of the Bathhouse and the Concession Area in preparation for opening, and service items that occur during the season. Winter preparation of plumbing systems in the unheated Bathhouse and the pools is also included.

Check Water Levels: Inspection times to verify proper operation of the filtration system in season, and water levels off-season.

Install and Remove Pool Cover: Time allocated for seasonal covering of the pools.