1988

Feasibility of Enacting an Impact Fee System in Cranston, Rhode Island

Michael John DeLuca
University of Rhode Island

AN IMPACT FEE SYSTEM

CRANSTON, R.I.

FEASIBILITY OF ENACTING
AN IMPACT FEE SYSTEM
IN
CRANSTON, RHODE ISLAND

BY

MICHAEL JOHN DELUCA

A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT

OF THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF COMMUNITY PLANNING

UNIVERSITY OF RHODE ISLAND

1988

MASTER OF COMMUNITY PLANNING

RESEARCH PROJECT

OF

MICHAEL JOHN DELUCA

APPROVED:

Major Professor _____

John J. Kupa

ACKNOWLEDGED:

Director _____

Howard H. Foster, Jr.

ABSTRACT

This report addresses the problem faced by the City of Cranston, Rhode Island, of how to provide adequate public facilities for city residents in response to rapid expansion of residential construction. Six functional areas of public facilities are the main focus of this analysis. They are educatiion, libraries, recreation, roadways, police and fire protection.

The method of this analysis focuses on assessing the City's current inventory of public facilities, projecting needs into the future, and determining their costs as related to those responsible for the growth in that time frame. The formula for the impact fee is based on the population growth, needs projection, cost of facilities in current dollars, and adjustments made necessary by existing deficiencies or anticipated outside financial aid. Three scenarios are developed which are based on different zoning configurations west of Interstate Route 295. A full set of impact fees are proposed for each scenario.

Through this analysis it was found that four of the six functional areas studied could benefit from imposition of an impact fee on new developments and legally defended in court if need be. A number of implementation options were considered resulting in proposals for amendment of the Cranston Building Code and the Cranston Subdivision Regulations.

ACKNOWLEDGEMENT

The preparation of this thesis was highly dependent upon the involvement and input of many others. I would like to acknowledge the Cranston City Council and the City Administration, particularly Mayor Michael A. Traficante and Planning Director Mr. Kevin M. Flynn for providing the public concern and impetus to address today's difficult growth issues in Cranston. The Cranston Departments of City Planning, Public Works, Recreation, Education, Libraries, Police and Fire provided the data on which this analysis is based and ample guidance on how to apply it. Individually, I would like to acknowledge my colleagues in the City Planning Department, Mr. Flynn, Edward A. Davidson, Lynn Furney, Arthur W. Butler, and Martha J. Cornell, along with Finance Director Mary Gliottone and Tax Assessor Carlo DelBonis for their time and assistance in completing this research. In addition, I would like to acknowledge a handful of confidants from whom I drew the energy it took to complete this project: Mary Lou Barrett, Charles N. Hirst, Brian Van Couyghen, John J. Matuszek, Jr., Angelina Zuchowski, and Mary Reynolds.

Finally, I am grateful to Dr. John Kupa for the unique and lively academic atmosphere his courses in environmental planning always provided.

Many thanks to Toryka Pescosolido and Paula Badessa for typing the final copy.

DEDICATION

I dedicate this thesis to my parents Michael and Theresa DeLuca, who supported my every educational endeavor from elementary school through graduate school. Without their love, patience, and encouragement this thesis and all of my graduate education would have gone unrealized.

PREFACE

In the short period of time between the economic recession of the early 1980's and the spring of 1986, the City of Cranston experienced an enormous boom of residential construction activity. While viewed favorably at first by the city administration, this intensification of activity soon burdened the city's infrastructure and threatened to adversely impact the public well-being. In the spring of 1986 the Cranston City Council passed a resolution authorizing the Planning Department to conduct a study assessing how impact fees may help alleviate the part of the burden this new residential construction was creating.

This report is the product of the research and analysis conducted in response to that mandate. The issue of rapid residential growth outpacing the city's ability to provide adequate public facilities underlies the purpose of this study. Without definitive data at hand, the ability of the city's administration to respond was severly limited. The severity of the problem as well as the number of potential solutions was unknown. Ideas for action were based mostly on opinion and assumption.

The City Council chose to study the situation before making any decisions. The study encompassed six months of research and writing and an additional three months for

editing and final printing. Integral to the research was a complete land use study, population growth projection, and estimates of capital facilities needs.

Before any development growth data was collected, an analysis of the legal ramifications of this innovative land regulatory mechanism was undertaken. Findings show a great deal of case law on the books. One analyst identified seventy-two cases related to exactions and impact fees. While the discussion of legal implications is brief in this report, it focuses on those cases considered relevant to the current situation. The ordinances drafted as a result of this study fully reflect the requirements identified in these case summaries to ensure constitutionality.

The end results are ordinances amending the City's Subdivision Regulations and City Building Code. The impact fees established therein are based on findings of fact regarding the city public facility inventory, current deficits/surpluses, projected growth, and estimated cost of providing new or expanded facilities.

Upon completion of this study, the City Council held a public hearing wherein the proposed ordinances were presented for public comment. The response was generally favorable and was highlighted by high commendation from the legal counsel of the Rhode Island Builders Association.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF MAPS

CHAPTER I

INTRODUCTION

A. PROBLEM

Residents and elected officials in Cranston have recently expressed serious concern for the effects that rapid development in the city is having on public facilities and services. It is feared that Cranston will be unable to provide adequate schools, libraries, police and fire services, roadways or recreational facilities to the same capacity in the future as at present. A major cause of concern is the rapid expansion of residential subdivisions taking place, particularly in Western Cranston. The number of building permits issued in this time frame rose from 93 in 1982 to 303 in 1985.[1]

Two possible approaches to this issue have been identified. The first focuses on strategies for the city to use in expanding public services at a pace consistent with the city's projected growth. The second focuses on mechanisms the city may want to implement to limit residential growth to a manageable level.

B. PURPOSE

The purpose of this report is to investigate measures

available to mitigate the effects of rapid residential development on Cranston's infrastructure. The method of mitigation focused on is called an "impact fee" system. Impact fees are defined as "charges assessed against new development to offset the cost of providing additional capital facilities necessitated by the new development". The goal is to remain capable of providing necessary public services and facilities to city residents as Cranston grows. The focus of this report is to determine how this objective may be achieved without overburdening any one segment of the population.

Information is assembled here regarding the city's current level of services, projected needs and the costs of projected facilities. Because projected needs are directly related to projected growth, this report will concentrate on making estimates for the public facilities needs through the next ten years, using 1985 as a base date. In some cases, projections past 1995 will be noted, though for illustrative purposes only.

C. METHODOLOGY

The methodology of the analysis is based on the carrying capacity concept, which is measured, in this case, by the city's zoning. That is, given a certain zoning designation, every parcel has a definable amount of development potential.

There are seven general steps involved in determining the impact fee:

1. inventory current facilities,
2. determine current facility inadequacies, if any,
3. project residential carrying capacity based upon zoning,
4. project future municipal facilities needs,
5. estimate cost of projected municipal facilities needs,
6. develop formula for each functional area,
7. incorporate formula into impact fee ordinance.

For the purposes of this analysis, capital facilities are considered under the broad functional categories of roadway, recreation, education, libraries, police, fire. Each functional category is assessed separately. Facilities currently available are inventoried and compared with national or local standards. All current inadequacies are noted and later factored out of the total projection for facility needs. Future facility needs are determined by first projecting residential growth for the city as a whole and calculating the proportion to be located within the service area of each area for each facility type varies. Service area standards for Cranston are elaborated upon in Chapter 3.

There are three projection scenarios presented in this report. The carrying capacity of each scenario has been developed by varying the zoning scheme of the land west of Interstate Route 295 (I-295). Estimated residential growth in each scenario dictates the absolute quantity of public facilities required. Once the projected need for each facility is estimated, the cost of the necessary improvements is calculated, then factored for a ten-year time frame. The ten-year cost is in turn divided by the ten-year residential growth projection to determine the cost per unit.

The key variables involved in the impact fee formula are:

1. cost of facilities required by 1995,
2. service standards applicable to each functional category,
3. service area of projected needs,
4. anticipated outside aid.

The following analysis reveals a tiered fee system based directly upon population projections in definable service areas for three growth scenarios. Also included is an assessment of measures alternative to the impact fee system with explanations of their usefullness to the city. The report concludes with a review of Cranston's prospective needs for the future and policy recemmendations for responding to those needs.

CHAPTER II

BACKGROUND

A. HISTORY

In the past, infrastructure improvements have been financed through local taxes, bonds, Federal and State aid or some combination of these sources. With the advent of budget cuts at all levels of government and voter reluctance to pass bonds not perceived to serve existing residents, the need has arisen to develop new mechansims for financing expansion of public services. To acheive this goal in the eighties, communities nationwide are shifting from the traditional shared tax base financing system to more user-oriented systems such as the impact fee.

This concept is not a new one. Beginning in the 1930's, local government often found it necessary to levy special assessments against real property where the property was benefitted directly by capital improvements such as sewer lines, storm drains, water lines, sidewalks, curbs, and gutters. In the 1950's, subdivision exactions increased in use as residential development boomed. In contrast to special assessments, exactions were implemented on a platwide basis. The two principle tools, land dedication and in-lieu fees, were used by communities to assure that sufficient space would be set aside for schools, parks and roadways. By the 1970's, growth in many northeast communities was slowing. Federal and

state dollars replaced exactions as the favored mechanism of securing captial facilities. Today, these mechanisms are being replaced by the "impact fee" to achieve the same objective. With other resources dwindling, communities are turning more readily to this form of regulation which emphasizes new development paying for its fair share of the improvements necessary to maintain a consistent level of public services. A comparison of how impact fees differ from exactions and special assessments is presented in Table 1.

A look at the experiences of other cities around the nation lends support to this concept. The City of Marysville, Washington, enacted an impact tax in 1980 to provide for expansion of city streets, parks, recreational facilities, storm drains, police and fire facilities citing the creation of "immediate and present danger to the existing quality of life", as supporting rationale.[2] Selah, Washington, also recently imposed an impact fee to fund projects such as two new parks, a bicycle trail, a new reservoir, and a new road. There, the City Council cited the need to recover "a fair share of the cost of additional capacity needs . . ." from those properties creating the need.[3]

In Rhode Island, two communities--Woonsocket and South Kingstown--have implemented impact fees. In Woonsocket, the impact fees will defray part of the city's cost for a new elementary school, new fire apparatus, a new park, a library expansion, a street sweeper and ten plus miles of roadway

paving.[4] The proceeds from South Kingstown's impact fee are dedicated to a new school, beach acquisition and development and construction of major recreational facility.[5] As these examples show, major capital improvements dominate the list of facilities included in the impact fee assessment. The rationale for excluding minor items such as police cruisers and radios, school supplies, and lawnmowers is dependent upon the manner in which the funds are administered. Impact fees' expenditures must be tied directly to the City's Capital Improvement Program, which most often involves selling bonds to finance the improvements. The impact fees then are used as downpayment and/or to pay back part of the bonds. In light of this financing format, the limitation to include only major and bondable capital facilities in the fee formulation is amply justified. A more specific description of financing is covered in Chapter V.

Impact fees are generally more flexible than other financing mechanisms. To justify this flexibility, a great deal of effort must be put into quantifying the physical, economic, and regulatory factors which support the regulation. There are seven issues that must be addressed in the development of a legally sound impact fee system. They include:

TABLE 1

ASSESSMENTS. EXACTIONS AND IMPACT FEES: DEFINITIONS AND CHARACTERISTICS [6]

SPECIAL ASSESSMENTS:

Charges levied against real property particularly and directly benefited by local improvements in order to pay the cost of those improvements.

a) Exercise of the taxing power
b) Used to finance improvements which benefit specific property
c) Used exclusively to provide for on-site improvements
d) Payment of taxes follows actual improvements

SUBDIVISION EXACTIONS:

Requirement that subdividers "dedicate" land for public use or pay a "fee in lieu thereof" which will become part of a fund to purchase such lands or facilities.

a) Exercise of the police power
b) Used to finance improvements which benefit entire subdivision
c) Used primarily to provide for on-site improvements
d) Payment of fees only an alternative to required dedication
e) Often involves extensive and elaborate negotiation
f) Problem where substantial platting has already occurred

IMPACT FEES:

Charges levied on new development in order to generate revenue for funding improvements necessitated by such new development.

a) Exercise of the police power
b) Used to finance a development's fair share of improvements which benefit total community
c) Used to provide for a variety of on-site or off-site improvements
d) Payment of fees usually at time of building permit issuance
e) Fees fixed rather than negotiated
f) Can apply to already platted or nonplatted parcels
g) Alternative or supplement to exactions

1) Linkage with the comprehensive plan and/or Capital Improvement Program,

2) Defining facility service areas,

3) Evaluating current facility adequacy,

4) Measuring unit impacts,

5) Pricing unit impacts,

6) Administering revenues,

7) Administering expenditures.[7]

B. LEGAL ISSUES

A detailed approach is one of the major differences between the impact fee system and previous financing mechanisms. Supported by the technology of the eighties, planners can now quantify the broad range of effects new developments may produce environmentally, socially and economically. From a legal standpoint, the courts generally favor a challenged ordinance if it is supported by a body of quantified data.

To adequately evaluate the validity of an exactions ordinance, the courts use a two-step procedure. The first step is to determine whether the ordinance is to be classifed as a regulatory measure or as a tax. In doing so, the courts look past the ordinance's title to its operative effect. Their decision is based on the use to which the funds raised will be put. If it is found that the funds raised will be used for financing the expansion of municipal facilities and services, then the ordinance will be regarded as a tax.

If, on the other hand, the fees are imposed to regulate land by assuring the provision of adequate facilities and services necessitated by the new development, then the measure will be regarded as a regulation.

The second step the courts take in evaluating the validity of an ordinance is to determine if the measure is authorized under state law. Therefore, if the ordinance is found to be a tax, then the court will examine the extent of that municipality's power to impose taxes. If is is found to be a form of regulation, then the court examines whether the municipality has the power to regulate for the purpose for which the fee is imposed. Taxes are generally more difficult to institute since they require express and specific statutory authorization. On the other hand, police power regulations are reviewed in a very broad manner. In these cases, the courts look for a close relationship between the fee charged and the captial cost necessitated by new users.

Once statutory validity of an impact fee ordinance has been established by the court, the final test is to determine its constitutionality. There are two approaches a litigant can take to refute the measure on constitutional grounds. The first is to attack the ordinance "on its face". This is to allege that the mere adoption of the ordinance will violate consititutional provisions. When this option is exercised, the court does not consider the specific impact of the ordinance on any one property owner.

The second approach, which is more common, is to attack the ordinance "as applied". The property owners main weapon here is the Equal Protection Clause of the 14th Amendment. Case law shows that this argument prevails only in the most unreasonable situations. In one landmark Utah case, an increased building permit charge, which the city admitted was implemented for the sole purpose of raising general revenues, was held invalid. The court rationale for this holding was that it violated the constitutional guarantee of equal protection by placing a "disproportionate and unfair" burden on new residents.[8] In an Ohio case, a water connection fee was held invalid by the court on the basis that it was unconstitutionally discriminatory. The rationale for this finding is based on the fact that the fee was to be levied only against future developments for a water system which would benefit all.[9]

Most cases where the impact fee is supported by a rational line of reasoning are found in favor of the municipality. In a 1979 Oregon landmark case, the court upheld a "system development charge" which established a varied rate schedule dependent upon land use designations. Importantly, the court made a point to question the city's formula for assessing single family dwellings, yet affirmed the ordinance in its entirety.[10] The courts are guided by the U.S. Supreme Court precedent which "requires only that there

be some rational basis for the classification made by the statute".[11]

Therefore, an impact fee is likely to be upheld unless it is clearly unreasonable. To avoid the ordinance being struck down, a municipally must be able to:

1. Justify the rate or rate schedule in terms of its pro rata share of reasonable aniticipated costs of capital facility expansion.

2. Prove that the money collected is targeted to meeting the costs of capital facility expansion.

Rhode Island possesses one case relevant to this analysis, **Frank Ansuini Inc. v City of Cranston, 264 A.2d 910, 1970.** In this case, a city exaction requiring developers to donate 7% of the land area being subdivided for municipal recreational use was struck down as unconstitutional. The Rhode Island Supreme Court found that, "the involuntary dedication of land is a valid exercise of the police power only to the extent that the need for the land required to be donated results from the specific and unique activity attributable to the developer".[12] Cranston had failed to prove that the 7% requirement was related to the development, thus the ordinance was found to be "arbitrary".

Although the city lost the case, the court affirmed the principle of land dedication.

CHAPTER III

INVENTORY

A. CITYWIDE

To understand the context in which this study takes place, an inventory of relevant factors is necessary. There are two general categories - physical and social. Under these two headings we identify eleven functional areas relevant to this analysis.

Social	Physical
Population	Education
Housing	Recreation
Land Use	Libraries
	Police
	Fire
	Roadways
	Sewer
	Water

Table 2 indicates the most recent citywide totals available for each functional heading.[13] Maps 1-5 graphically depict each of these on a citywide basis.

An understanding of population and housing information is especially important to the proper implementation of an impact fee system. It is this data on which the per unit cost of public facilities will be based in the final assessment.

In 1980, Cranston's population stood at 71,992, which represented a 3.1 percent decline since 1970. This figure, however, is misleading. A significant portion of the City's population loss can be attributed to the sharp decline in residency at the State Institutions.[14] When the institutional

TABLE 2

CITY OF CRANSTON

-CITYWIDE INVENTORY-

A. LAND USE

TOTAL AREA	27.99 square miles 17,919 acres
FUNCTIONAL AREAS	
Residential	6,822 acres
single family	5,599 acres
2-family	786 acres
multi-family	254 acres
Industrial	509 acres
Vacant	5,865 acres
Commercial	502 acres
Recreation	255 acres
Institutional & Public	1,332 acres
Communications & Utilities	377 acres
Streets & Highways	1,970 acres
Farmland	287 acres

B. POPULATION (1980 U.S. Census)

TOTAL	71,992
Mean Household Size	2.64

C. HOUSING (1980 U.S. Census)

TOTAL UNITS	27,254

D. TOTAL RECREATION AREAS

TOTAL AREA 255 acres

FACILITIES			
Reg. Baseball	5	Football	1
Reg. L. League	13	Soccer	1
Reg. Softball	5	¼ Mile Track	2
Baseball Backstop	20	Pool	1
Basketball Ct.	19	Playground Equip.	227
Tennis Ct.	15	Ice Rink	1

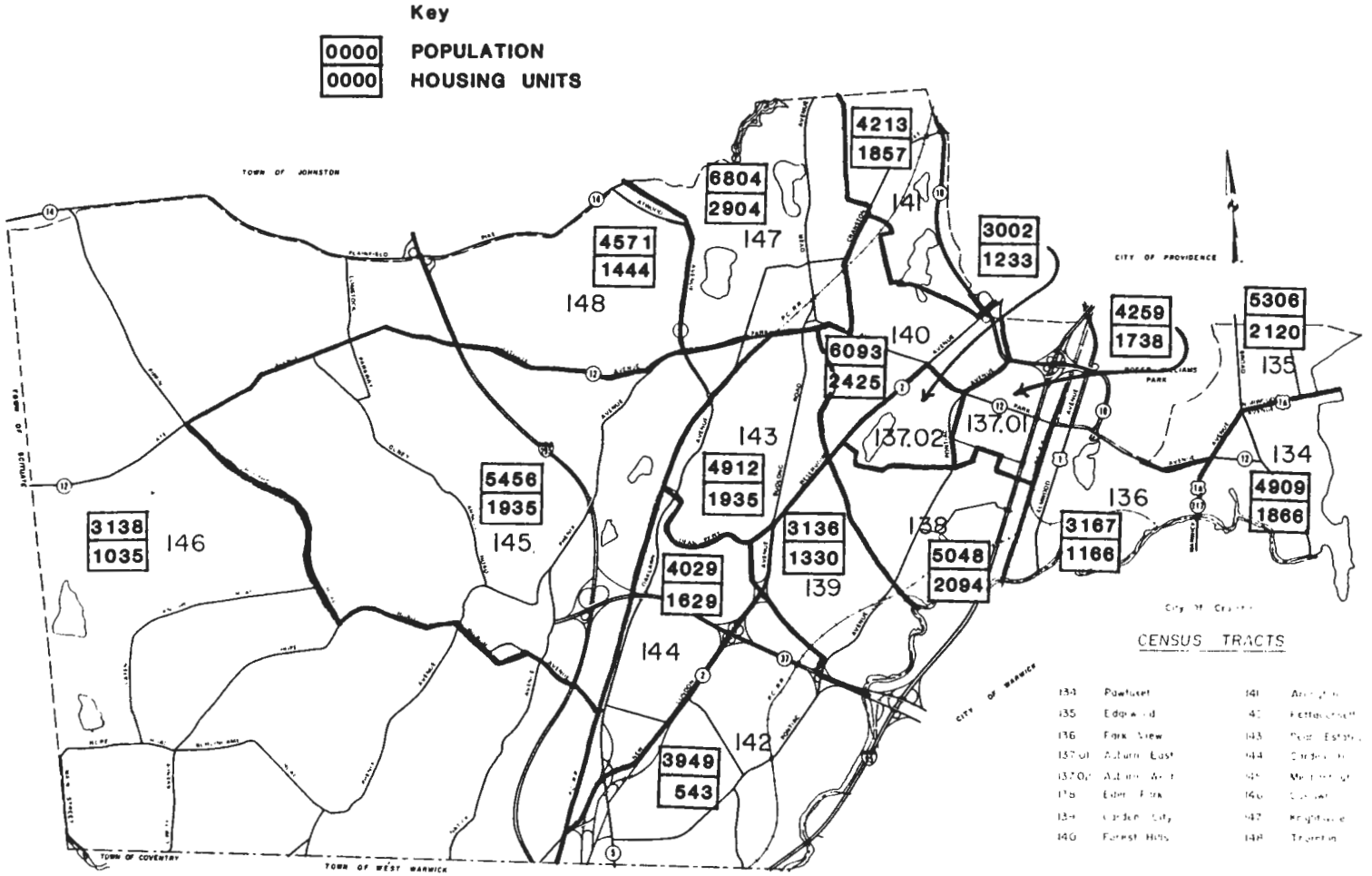
E. EDUCATION

Total School Buildings	22
Total Area	132.4 acres
High Schools	22.81 acres
Jr. High	31.07 acres
Elementary	78.47 acres

TABLE 2 cont.

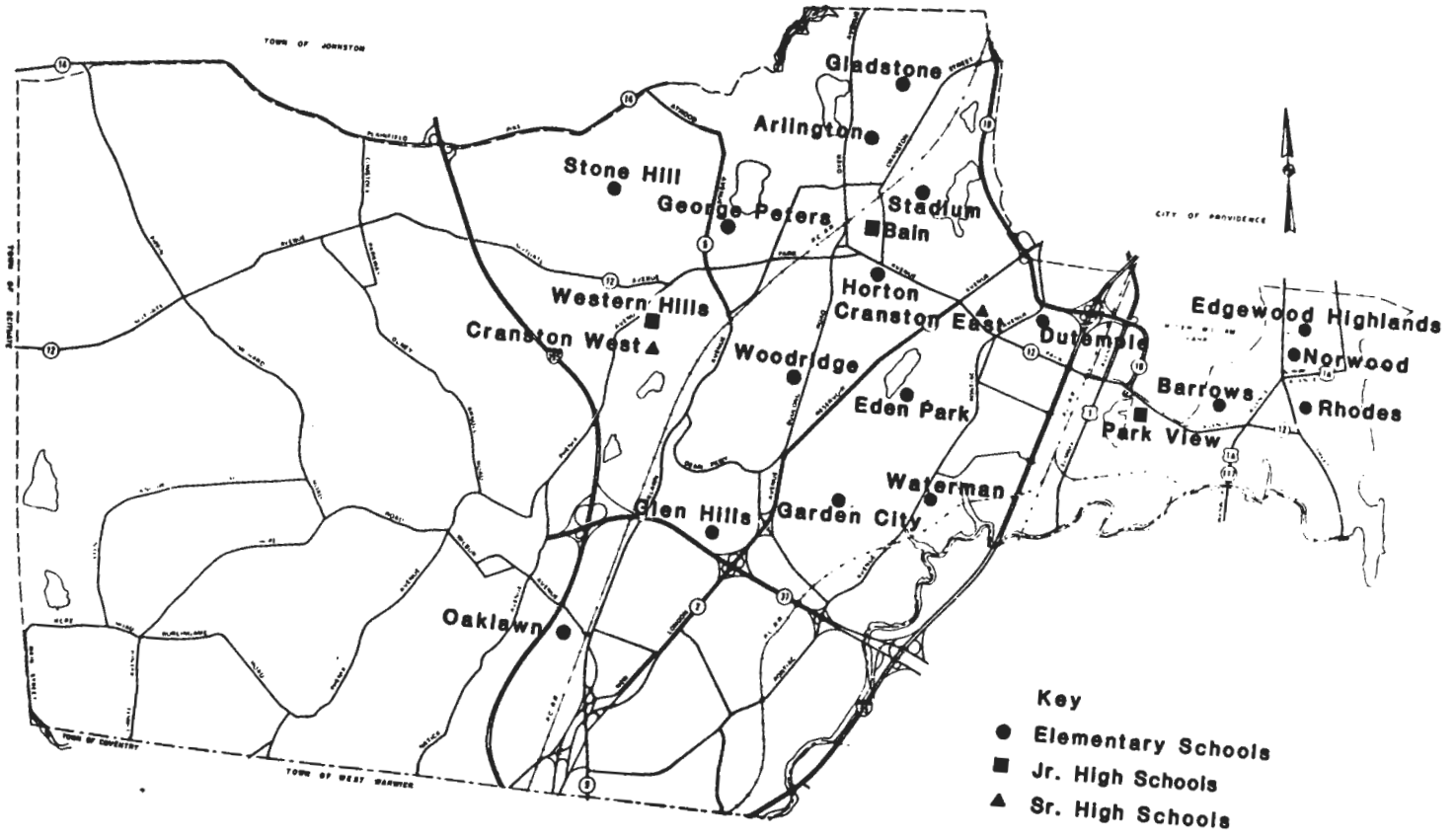
F.	LIBRARIES	
	Total Facilities	6
	Total Building Space	41,700 square feet
G.	WATER	
	Number of Service Connections:	
	:PWSB	19,582
	:Cranston	1,337
	Estimated Service Population	62,757
	Average Daily Usage	
	:PWSB	75,209,021.0 gal/day
	:Cranston	609,254.5 gal/day
H.	SEWERS	
	Length of Main Lines	220 miles
	Number of Service Connections	21,000
	Estimated Service Population	65,000
	Average Flow Per Capita	200 gal/day
	STP Capacity	23 MGD
	STP Current Flow	13 MGD
I.	POLICE	
	Total Manpower	138
	Building Space	14,970 square feet
J.	FIRE	
	Total Manpower	191
	Station Houses	6
	Vehicles:	
	Engine	8
	Ladder	4
	Rescue	5
	Miscellaneous	2

POPULATION AND HOUSING UNITS BY CENSUS TRACT



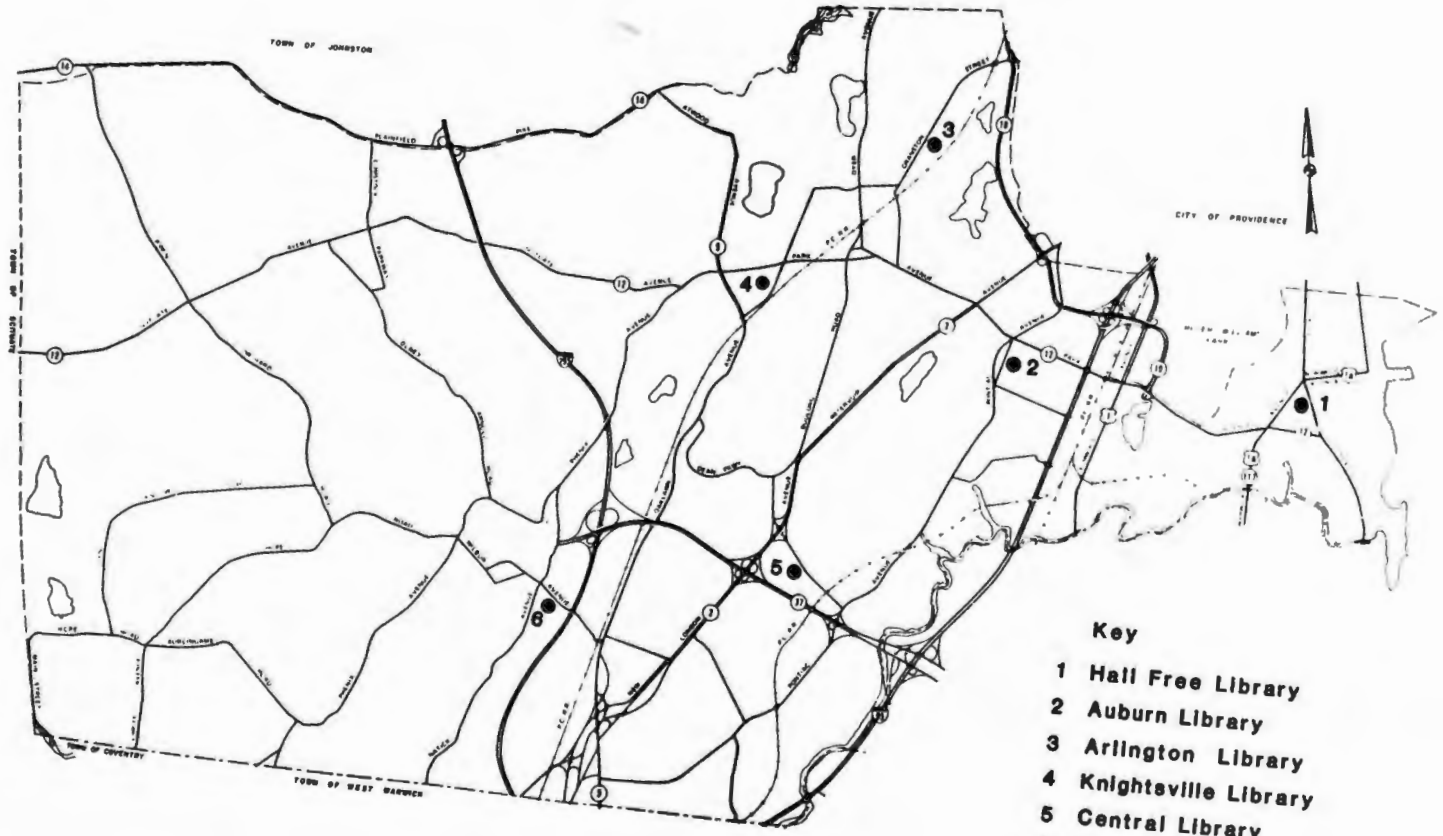
Map 1

CRANSTON'S PUBLIC SCHOOLS



Map 2

CRANSTON PUBLIC LIBRARIES

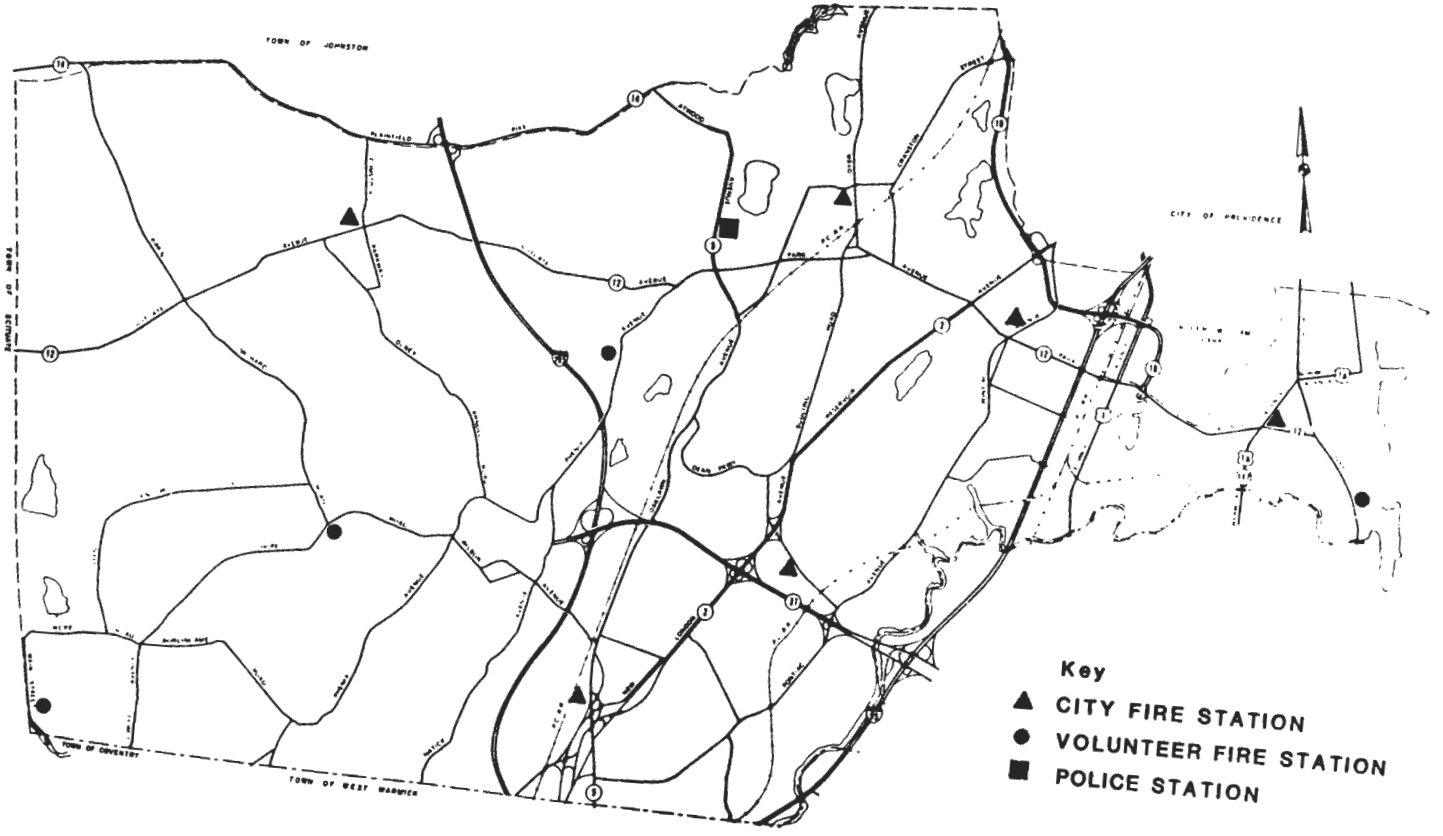


Key

1 Hall Free Library
2 Auburn Library
3 Arlington Library
4 Knightsville Library
5 Central Library
6 Oaklawn Library

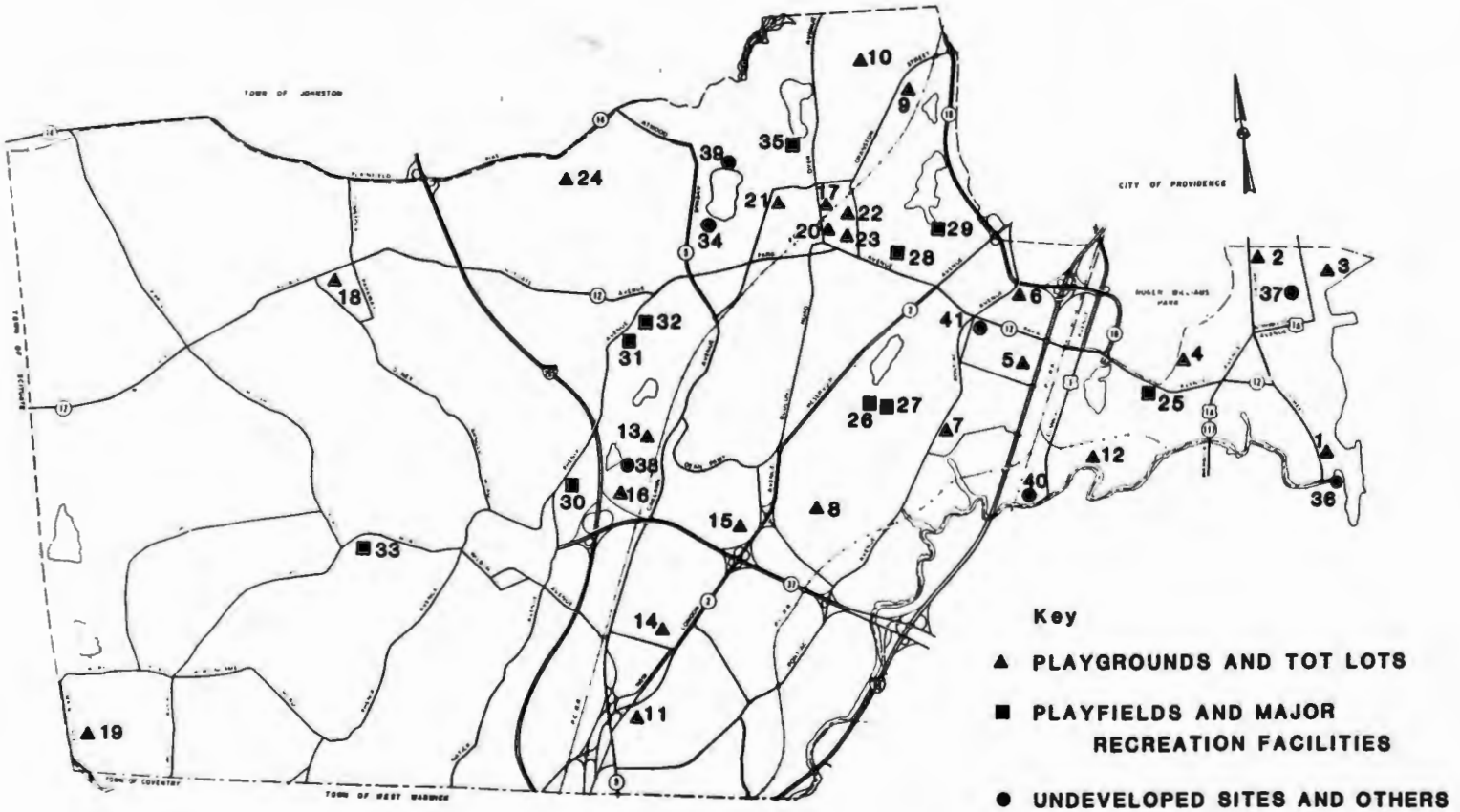
Map 3

POLICE AND FIRE STATIONS



Map 4

CITY RECREATION FACILITIES



Map 5

CITY OF CRANSTON

Recreation and Open Space Facilities

▲ PLAYGROUNDS AND TOT LOTS

1 Commercial Street Playground
2 Smith Street Tot Lot
3 Narragansett Street Tot Lot
4 Beachmont Avenue Playground
5 South Clarendon Street Playground
6 Friendly Community Playground
7 Waterman School Tot Lot
8 Garden City School Playground
9 Whipple Avenue Playground
10 Gladstone School Playground
11 Hilltop Drive Playground
12 Sanders Playground
13 Oaklawn Avenue Playground
14 Brayton Avenue Playground
15 Glen Hills Playground
16 Sherman Avenue Playground
17 Knightsville Playground
18 Comstock Gardens Playground
19 Fiskeville Playground
20 Oak Street Tot Lot
21 Highland Park Tot Lot
22 Ricci Playground
23 Cooney-Tate Playground
24 Stone Hill Playground

■ PLAYFIELDS AND MAJOR RECREATION FACILITIES

25 Park View Playfield
26 Budlong Brook Playfield
27 Aqueduct Playfield
28 Cranston Stadium
29 Spectacle Pond
30 Veteran's Ice Rink
31 Cranston West High School
32 Western Hills Junior High School
33 Briggs Farm
34 Atwood Avenue Playfield
35 Dyer Avenue Playfield

● UNDEVELOPED SITES AND OTHERS

36 Pawtuxet Cove
37 Edgewood
38 Meshanticut
39 Randall's Pond
40 Wellington Avenue
41 Veteran's Memorial Park

population is factored out, the population drop from 1970 to 1980 was less than one percent. Appendix I illustrates the twenty-year trend between 1960 and 1980 by census tract.

Generally, the 1980 census data shows that population decline occurred mostly in the eastern section of the city, which for the purposees of this analysis is considered all census tracts except 145 and 146. This trend was due mainly to lower birth rates, declining household and family size, and lack of new construction. Between 1970 and 1980, the central and western sections showed minor to moderate population increases. Since 1980, however, the trend in residential growth has accelerated in the western section.

The trend in residential building permitted since the time of the 1980 census verifies this statement. The table below shows that of 1,057 building permits issued for residential development in the six years since the census, better than one half were for contruction in western Cranston.

TABLE 3

RESIDENTIAL BUILDING PERMITS [15]

Year	Citywide	Western Cranston	
1980	107	36	34%
1981	87	47	54%
1982	93	49	53%
1983	210	140	67%
1984	260	180	69%
1985	300	168	56%
Total	1,057	620	57%

This proportion has increased since 1983 as residential development in Western Cranston has dominated the city's total building picture.

To estimate the effect Cranston's construction boom is having on the city's population, statistics are again utilized.[16] The following list identifies three central tendencies computed for Cranston's population:

1. Mean Household Size 2.64
2. Median Number of Persons Per Occupied Housing Unit 2.66
3. Mean Number of Persons Per Occupied Housing Unit 2.75

Using the low estimate of 2.64 persons per household, the following growth estimates are generated:

TABLE 4

UNADJUSTED POPULATION CHANGE

	Citywide		Western Cranston	
Year	D.U.'s	Est.Pop. Change	D.U.'s	Est. Pop. Change
1980	198	523	38	100
1981	330	871	273	721
1982	111	293	49	129
1983	241	636	143	377
1984	353	932	181	477
1985	371	979	171	451
TOTAL	1,604	+4,234	855	+2,255

Unadjusted Estimated City Population 76,226

Estimated Total Swelling Units (DU's) = 28,858 (+6%)

When birth and death rates are factored in, the population estimates show an even greated proportion of recent growth attributable to western Cranston.[17] This trend is evident by comparing the population growth totals below with those in Table 4.

TABLE 5

ADJUSTED POPULATION CHANGE

Year	Citywide	Western Cranston
1980	467	150
1981	768	748
1982	250	163
1983	625	425
1984	942	500
1985	977	489
TOTAL	+4,029	+2,475

Adjusted Estimated City Population: 76,021 (+5.6%)

Although these estimates do not account for all factors that contribute to population change, such as migration, they do produce conservative estimates from which general conclusions may be drawn. These adjustments reduce the average houshold size from 2.64 to 2.51 citywide and increase the average household size to 2.89 in Western Cranston. More significantly, the two Western Cranston census tracts are found to account for over 61% of the city's estimated population growth in the past six years. The figures indicate population of these two census tracts grew by an estimated 28.7% in this time frame, an additional 2.5% greater than the unadjusted estimate.

The implications generated through these calculations are clear. In a city where the population has remained stable for a decade or more, there has been an increase of 1,604 dwelling units built in the six years since the census counts were taken. Significantly, the proportion of building activity focused in Western Cranston has increased since 1983, as residential development in Western Cranston has dominated the city's total construction picture. Since 1982, the number of new dwelling units constructed has risen steadily. This year the city's building inspector issued 356 residential construction permits, the greatest number for a single year in more than a decade.

B. WESTERN CRANSTON

Uniquely important to this analysis is the land use make-up of Western Cranston. For this study, all references to "Western Cranston" shall be specifically focused on census tracts 145 and 146, generally the area west of Interstate 295 (I-295). Between 1980 and 1985, over 53 percent of the residential dwelling units built in the city were located in these two census tracts. In terms of impact, it is the spread of residential construction from the city's urban center that is creating the most stress on municipal facilities. Table 6 identifies selected public facilities located in census tracts 145 and 146.

TABLE 6

CITY OF CRANSTON

- WESTERN CRANSTON INVENTORY -
Census Tracts 145 & 146

A. LAND USE		PERCENT OF CITY TOTAL
Total Area	14.9 square miles	53.29%
	9,592 acres	53.29%
Functional Areas		
Residential	3,820.5 acres	56.0%
Single Family	3,284.5 acres	58.6%
2-Family	425.7	54.1%
Multi-Family	110.2 acres	43.3%
Industrial	84.0 acres	16.5%
Vacant	4,380.4 acres	74.7%
Commercial	116.9 acres	23.3%
Recreation	94.03 acres	36.8%
Institutional & Public	419.14acres	31.4%
Communications & Utilities	108.8 acres	19.4%
Streets & Highways	111.03 acres	5.6%*
Farmland	272.0 acres	94.7%

* Collectors & Arterials only

B. POPULATION (1980 U.S. Census)		
Total	8,594	11.93%
Elementary Age	503 (aged 5-9 only)	

C. HOUSING (1980 U.S. Census)		
Total Units	2,970	10.89%
Mean Household Size	2.89	

D. RECREATION		
Total Area	94.03 acres	11.0%
Facilities		
Reg. Baseball	1	20.0%
Reg. L. League	3	23.0%
B. Ball Backstop	4	20.0%
Basketball Ct.	1	5.2%
Tennis Ct.	1	6.6%
Soccer	1	100.0%
Playground Equip.	10	4.4%
Ice Rink	1	100.0%

TABLE 6 cont.

E.	EDUCATION		
	Total Facilities	3	13.6%
	Total Area	41.08 acres	31.9%
	High Schools	19.91 acres	87.2%
	Jr. High	18.73 acres	60.2%
	Elementary	2.44 acres	3.1%
F.	LIBRARY		
	Total Facilities	1	16.6%
	Building Space	2,068 square feet	4.8%
G.	WATER	N/A	-
H.	SEWERS	N/A	-
I.	POLICE	N/A	-
J.	FIRE		
	Total Manpower	20	10.4%
	Station Houses	1	16.6%
	Vehicles:		
	Engine	1	12.5%
	Ladder	0	
	Rescue	0	

A comparison of the Western Cranston area with the inventory citywide reveals several findings. The first and most notable statistic relates to land use and population. The two study census tracts make up more that 50 percent of the land area of the city, yet today support only about 12 percent of its population. Small as it may seem, this ratio has actually increased in the past decade by 1.5 percent, representing a numerical increase of 714 persons. The city's extension of public water service to portions of this area, coupled with a major rezoning in 1977, set into motion the potential for residential growth that has been realized in the past three to four years.

This trend reflects the impact that suburbanization has had on an area previously dominated by farming. Over 94 percent of the city's farming acreage is located in these two census tracts. Here, as in many farming areas around the country, smaller farms are giving way to residential development as a result of changes in the economy. For the most part, these developments are characterized by low density, high cost, single family detached units. Real estate in Western Cranston may range from less than $100,000 to over $1 million.

The second notable result of comparing Western Cranston to the city overall, is the variation in average parcel size. By dividing the number of housing units by the residential acreage, we note a significant difference between the two

defined areas. In Western Cranston, there is an average of 1.28 acres of land per housing unit compared to just 0.25 acres per housing unit in the city as a whole. This statistic verifies the suspected predominance of low density residential development. In reality, it reflects two separate, but related, conditions:

1. Inactive farms, having one or two houses on a large expanse of land, that have been redefined as residential in the city's land use code,

2. Very low density development in areas not serviced by city water or sewer.

It can, therefore, be concluded that when assessing the development potential of Western Cranston, not only that land officially designated "vacant" must be considered, but also the vacant portions of existing very low density developments such as farms. With land values continuously on the rise and interest rates favorable, the current attraction for developing long dormant parcels has heightened. Landowners who previously were willing to "leave well enough alone", now are being encouraged to develop or sell in response to the willingness of developers to pay ever-increasing prices for land.

1.) Assessment of Current Municipal Facilities

a. **Education:** There is no lack of junior high or senior high school facilities in the designated area. However, elementary educational facilities are limited to two sites: Oaklawn elementary and Stone Hill elementary. Oaklawn School is one of the few currently at or over its capacity.

Stone Hill School, although not located in the study area, serves a donsiderable portion of Western Cranston. Its enrollment has been on the rise in recent years. This issue will be addressed in the next chapter.

b. Library: The Oaklawn Branch of the city library is located at the southeastern extreme of the subject area and provides 0.24 square feet of floor space per person as compared with a citywide average of 0.59. The importance of these statistics, along with locational issues, will be discussed in the next chapter.

c. Municipal Fire Protection: Fire Station #10 is located at the corner of Comstock Parkway and Scituate Avenue. Recently built, it houses one engine and a 24-hour staff of twenty. This station house serves all of Western Cranston, but response time worsens with distance. Some areas are served by the Oaklawn Station House, which is located just outside the designated area, and volunteer stations located on Hope Road and in Fiskeville. The adequacy of this arrangement, particularly in light of the growth in the southern part of Western Cranston, will be discussed in the next chapter.

d. Recreation: Recreation Department facilities are located on seven sites in Western Cranston. Notably, they include two citywide facilities in the soccer field at Briggs Farm and the Veterans Ice Skating Rink. Not included in the acerage totals is the 331 acre Curran State Park, as it

provides mostly passive facilities and is controlled by the R.I. Department of Environmental Management.

The six city-owned sites account for just over 94 acres, or 11 percent of the recreational land area in the city. This would seem to be sufficient when compared to the Western Cranston population figures. However, much of the overall total is taken up in open space at the Briggs Farm site. Facility adequacy and deficiencies will be addressed in the next chapter.

e. **Roadways:** The roadway inventory of Western Cranston is limited to arterials, collectors and locals as defined by the R.I. Statewide Planning Program.[18] For this study, only roadways west of I-295 are included in the survey. This limitation is made under the assumption that, although some roadways east of I-295 are in need of reconstruction or resurfacing, the majority of effects anticipated from future development in Western Cranston will be confined to the area west of I-295.

With 22.9 linear miles of arterial and collector roadways, Western Cranston possesses less than 30 percent of the major thoroughfares in the city. Plainfield Pike, Scituate Avenue, and Seven Mile Road are the only roads designated as arterials. The remainder: Pippin Orchard Road, Comstock Parkway, Wildflower Drive, Olney Arnold Road, Hope Road, Burlingame Road, Phenix Avenue, Wilber Avenue, Conley Avenue, and Natick Avenue are designated as collectors.

Scituate Avenue is the widest east/west roadway, having an 80 foot right-of-way. Pippin Orchard Road north of Scituate Avenue also has an 80 foot right-of-way. Plainfield Pike, Wilbur Avenue, Wildflower Drive, and Comstock Parkway South have 50 foot rights-of-way. The remainder of the roadways have 40 feet or less right-of-way. In the case of Seven Mile Road, Natick Avenue, Phenix Avenue, and Olney Arnold Road, the right-of-way width averages about 33 feet, but varies widley. The issue of current and projected design capacity will be addressed in the next chapter.

CHAPTER IV

PROJECTED CAPITAL FACILITY NEEDS

A. CARRYING CAPACITY

In projecting needs for the future, the first task is to determine the city's residential capacity under current zoning. The base data for this activity is supplied in the two following reports compiled by the City Planning Commission staff:

"Potential Holding Capacity - 1977"

"Potential Holding Capacity - 1980"

In order to be certain that the information is up to date, a comprehensive land use study of verification was conducted based on the 1985 Land Use maps. The results of these two reports are adjusted to reflect the developments occuring in the interim.

In this chapter, three scenarios are developed for which capital facilities needs for the future are estimated. The key variable is zoning. Each scenario assumes a constant rate of growth in the city, making maximum development dependent upon time.

Scenario A: Current Zoning

Scenario B: Current Zoning modified only by assuming A-20 in the area west of the Western Cranston Industrial Area and north of Scituate Avenue, which is currently zoned A-80. This is an area the city anticipates connecting to the municipal sewer system.

Scenario C: Current zoning modified by assuming A-20 in all areas within census tracts 145 and 146 which are now zoned A-80. This assumes, over the course of time, the extension of water and/or sewer service would justify a change of zoning.

The general process of growth projection first requires determining the city's residential capacity at maximum development, or "build-out". Following this, a factor is applied to the development projections resulting in separate estimates for eastern and western Cranston, at ten-year intervals. The first ten-year interval, 1985-1995, is of central importance to this study.

Aggregating the information generated in each scenario analysis produces the following growth projections:

TABLE 7

Growth Projections*

(number of dwelling units)

Scenario A

	East	West**
1985	25,033	3,825
1995	25,886	5,806
10 yr/increase	+ 853	+1,981
Build-Out	27,964	10,663

Scenario B

	East	West
1985	25,033	3,825
1995	25,886	5,896
10 yr/increase	+ 853	+2,071
Build-Out	27,972	12,109

Scenario C

	East	West
1985	25,033	3,825
1995	25,886	6,110
10 yr/increase	+ 853	+2,285
Build-Out	27,647	15,975

*Appendix 2 contains more detailed information.
**Census Tracts 145 and 146.

Scenario A, projects a 34% increase in Cranston's residential growth at build-out. Using past building permit trends as a general estimate of construction activity in the future, projected build-out will occur in about 35 years. The formula below exhibits how this conclusion was reached:

Step 1: Maximum Build-Out Under Current Zoning

1985	Estimated Additional Units	9,841
	Units precluded to provide land for future Capital Facilities	- 60
	Adjusted Estimated Additional Units	9,781

Step 2: Time to BuildOut Under Current Zoning

$$\frac{\text{Adjusted Estimated Additional Units}}{\text{Average DU's Permitted Yearly}} = \frac{9,781}{283} = 34.5 \text{ yrs.}$$

Estimated additional units are derived as stated previously. The number of units precluded is calculated by estimating the additional acreage required for expansion of schools, recreation, fire and library facilities, then subtracting from the total the number of dwelling units which that amount of land would support.

Time to build-out is then estimated by dividing the total additional number of units allowed by the average number of dwelling units permitted yearly. This average was estimated by calculating the simple yearly mean of residential units permitted, over the time span 1976-1985 inclusive. The resulting average of 283 is considered reasonable, accounting for both boom and bust phases in local construction.

Scenario B projects a 39% increase in Cranston's residential growth at build-out. In this scenario, with zoning density increased north of Scituate Avenue, projected build-out will occur in about 40 years, providing an additional 11,223 units to the city.

Scenario C projects a 51% increase in Cranston's residential growth at build-out. In this scenario zoning density for all of Western Cranston currently requiring two acre housing lots at minimum would be increased to half acre residential zoning. This alteration would allow 0.93 more dwelling units per acre than currently allowed, totaling roughly 5,000 more than in Scenario A. Build-out would occur in about 52 years, providing an additional 14,764 dwelling units to the city.

B. CAPITAL IMPROVEMENTS

The capital improvements to be considered for inclusion in this impact fee system must be carefully selected. Working in concert with the appropriate municipal departments and their capital improvement budgets, the following list of potential needs has been generated for the next ten years under Scenario A:

1. Education - A new elementary school in Western Cranston
2. Recreation - Fifty-nine acres of land and various large-scale recreational developments
3. Police - An addition to the police station
4. Fire - A new station house to serve south-western Cranston

5. Library - An addition to the Oaklawn branch and a new branch library in Western Cranston

6. Roadways - Improvements to five arterial and/or collector roadways in Western Cranston

In generating this list, the items considered are limited to those which are directly related to impacts caused by residential growth. Using this criteria necessarily exludes a number of capital items such as school renovations, traffic signal modernization, dictation equipment and library relocation. For a project to be related to the impacts of residential growth, it must be otherwise unnecessary for a static growth situation. Therefore, we are confined to considering only those projects intended to provide new or expanded capacity to the city's infrastructure system.

1) Service Standards:

One of the key criteria for practical implementation of an impact fee system is the identification and establishment of standards by which projections of capacity needs may be made. Standards establish performance levels which, if adhered to, assure consistent provision of municipal facilities to the city's residents. Another important reason for establishing service standards is to quantitatively identify current deficiencies in the city's inventory of public facilities if they exist. Currently deficient facilities should be considered in the formulation of an impact fee system. These standards are also integral to the proper defense of the impact fee ordinance, if challenged.

There are three types of standards used in this assessment. The first is a "service area standard". The City of Cranston, in its latest Comprehensive Plan Report, established service area standards for fire and school facilities.[19] This type of standard involves delineation of a particular geographic area, usually a radial distance, that the facility in question is meant to serve. The second type of standard is a "service population standard". Two of these are employed in this study: recreation and police.[20,21] This type of standard establishes a quantity of facility or service required for a specified unit of population. The third type of standard is a "floor area standard" and is related to the amount of building area required to serve a set unit of population. We employ three floor area standards in this study: police, library and schools.[22,23,24] The reasons for police and schools to have more than one standard are elaborated upon later in this chapter. Table 8 graphically identifies all the above referenced standards.

TABLE 8

SERVICE STANDARDS

Service Area	Service Population	Floor Area
Elem. Schools (1 mile/service radius)*		Elem. Schools (130 s.f/ student)
Fire Service (1.5 mile/service radius)* (6 min./response time)		
	Recreation (3 acres/800 pop.)*	
	Police** (2 officers/1,100 pop.)	Police Station Office Space (190 s.f./officer)
		Library (.59 s.f./person)*

*Established in City Comprehensive Plan Report
**Industry standard (F.B.I. suggests 2 officers/1,000 pop.)

2) Deficiencies:

Before a set of projected capital facilities needs is compiled, the issue of current inadequacies must first be addressed. One of the tenets of the impact fee concept is that new development not be required to finance the correction of past mistakes. For example, the cost of expanding municipal facilities to meet a present level of demand should not be borne by future development. Rather, these identified "deficiencies" must be the responsibility of the municipality.

Table 9 identifies the city's needs under each functional category, its present service volume and the current deficiency which must be alleviated to conform to the accepted standard. Recreation, Police, and Libraries information related directly to the land or floor area of the pertinent capital facilities. Fire and Elementary Schools information conversely related to the land area served by the pertinent captial facilities. Roadways information is not applicable, though a deficit is explained in a later section.

TABLE 9

Capital Facilities Deficiencies

Functional Category	Need	Present	Deficiency
Recreation (a)	285.5 ac	254.7 ac.	- 30.5 ac
Police Station Office Space (b)	26,197 sf	20,154 sf	-6,043 sf
Library (c)	44,852 sf	42,300 sf	-2,552 sf
Fire (d)	17,919 ac	13,819 ac	-4,100 ac
Elementary Schools d	17,919 ac	11,569 ac*	-6,350 ac*
Roadways	**	**	**

(a.) Land area in acres

(b.) Building area in square feet

(c.) Building area in square feet

(d.) Land area served in acres

* No system capacity deficit - This deficit is calulated based on 1 mile service area radius standard.

** Insufficient traffic data. Cost allocation in later section is based on assumption of adequate service in 1980.

3) Facilities: Scenario A

In Consideration of the deficiencies identified above, capital facilities development and/or expansion is projected through 1995 at the following capacities for Scenario A.

a. Recreation: A future additional need is projected for 111.7 acres of land, 59.0 acres of which will be required by 1995. Using a ten-year population estimate of 83,656 results in a projected need for some combination of facilities from the following list:

1-4	Baseball/Little League Fields
3-5	Basketball Courts
2-5	Tennis Courts
1-4	Soccer/Football Fields
10-40	Pieces of Playground Equipment

The highest priority for the next decade is development of one or two large playfields in Western Cranston. These sites would provide a variety of facilities from ballfields and courts to passive opportunities and children's play areas. These facilities would be designed to serve the city as a whole, since their main focus would be on large land area facilities (baseball, soccer), that the city is unable to provide in already developed areas.

b. Police: The need is projected for an additional 8,726 square feet of floor space in the Cranston Police Station by 1995. Of this amount, 6,043 square feet are needed to alleviate present deficit, leaving ten-year expansion requirement of 2,683 square feet. The Police Department has requested funding for construction of an addition to their

existing building rather than construction of a new building, in this year's capital improvement program.[25] Construction of this addition will provide 190 square feet of floor space per uniformed officer including sufficient space to accommodate 12 to 14 more officers as city population grows closer to the 1995 estimate of 83,656 residents.

c. **Library:** The need is projected for an additional 17,884 square feet of floor space to accomodate the city's library needs at build-out. By 1995 the city will require 7,057 square feet of that demand. Current deficit is estimated at 2,552 square feet of floor space, leaving a ten-year growth requirement of 4,505 square feet. The Library Department has requested funding for two major capital items in this year's capital improvement program: an 1,100 square foot addition to its Oaklawn Branch and a new branch of some 6,000+ square feet for Western Cranston.[26] Once completed, these improvements should serve the city's needs until at least 1995.

d. **Fire:** The need is projected for an additional fire station in the western section of the city in response to increased stress residential construction is creating west of I-295. although that area is partially served by the newly constructed Station #10, Oaklawn Station #12, and two volunteer stations, new development is creating a need for an additional municipal facility. Much of the area south of Hope Road and west of Natick Avenue is outside the six-minute

response time area of the two nearest city station houses. Although a volunteer station house is well-located to serve this area, its resources are limited. The city, therefore, must consider providing full-time fire service to this area.

Another issue which creates concern in planning for a new fire station is the state of the roadway network in Western Cranston. The actual area which could effectively be served within the six-minute response time standard is not clearly definable since the roadway system west I-295 is not complete and will undergo many additions within a ten-year time frame. The current policy of the City Planning Commission is to require developers to construct through roads, where feasible, in conjunction with subdivision plans for approval. In light of this, it is conceivable that some areas will be made more easily accessible as the city's western sector continues to grow.

As a result, expansion of the fire department to better serve the south-western portion of the city, has been omitted from this scenario due to the generally sparse development located in that area. Although some significant growth is taking place outside the primary service areas of Station House #10 and #12, and some level of deficiency exists, it has not yet reached a stage warranting the construction of a new station house.

e. **Elementary Schools:** Depending on whether service radius or system capacity is used as the demand criterion, the need for one to three schools in Western Cranston before build-out is reached could be projected. If system capacity were the criteria used, the need for an additional elementary school in Western Cranston would likely not occur for 20 or more years. If service radius is used, the need for construction of one elementary school in Western Cranston before 1995 in order to provide a "neighborhood school" for the families west of I-295 would be warranted.

Although there is no system-wide capaicty problem, increased development in Western Cranston has severely stressed the facilities of Oaklawn and Stone Hill elementary schools. While elementary enrollments in Cranston as a whole have remained relatively steady in the past five years, enrollments in Oaklawn Elementary have risen 19.2%. Conceivably, there could develop the need for construction of more than one elementary school west of I-295 before build-out is reached.

For the ten-year time frame of this report, it is estimated that an additional 361 elementary students will be living in Western Cranston before 1995. This estimate of student growth, which is conservative, would severely impact the two schools currently serving Western Cranston. A deficit of 273 seats could occur by 1995 if no action is taken to

accommodate these students. The option of reassignment of students through district alterations could accommodate the ten-year growth, yet, would likely cause many elementary students from Western Cranston to be bused further than they are currently.

Consequently, the provision of an additional elementary school in Western Cranston is omitted from this scenario due to the system-wide excess of space and the unsure direction of the School Department to respond to the growth-induced stress placed on the two noted facilities. Until projections of future need, redistricting, and grade reorganization are addressed, the prospect for new construction will remain unsettled.

f. **Roadways:** In projecting the need for roadway reconstruction, rehabilitation, and resurfacing, a different approach is taken from that of the traditional traffic volume and trip generation method. There are a number of reasons for this departure in methodology. Although others have employed trip generation rates to estimate and justify an impact fee assessment, this approach was not found to be appropriate to to the situation in Western Cranston. Instead, a simpler, equally appropriate method has been devised which is not dependent upon incrementally additive impacts to accure accrue before a threshold volume is met.

Because we are dealing in Western Cranston with an entire system exhibiting deficiencies such as deteriorated pavement, insufficient shoulders, poor sight lines and substandard lane geometry, the measurement of corridor capacities or traffic impact of individual developments is both difficult and inappropriate.

A more suitable and realistic approach is to estimate the cost of rebuilding most of the collectors and arterials located west of I-295 and south of Scituate Avenue, to the width of 60 feet for right-of-way and at least 40 feet for paved surface.[27]

1.	Wilbur Avenue	$ 540,000
2.	Hope Road	$3,700,000
3.	Olney Arnold Road	$ 460,000
4.	Phenix Avenue	$2,320,000
5.	Pippin Orchard Road (Hope Road to Scituate Avenue)	$ 850,000
6.	Natick Road	$ 420,000
7.	Furnace Hill Road	$ 70,000
8.	Seven Mile Road	$1,200,000
	TOTAL	$9,560,000

These estimates include some land taking where feasible.

The cost for some of these facilities is likely to be financed through the Rhode Island Department of Transportation (RIDOT), Highway Improvement Program (HIP). This program is funded by the U.S. Department of Transportation, Federal Highway Administration (FHWA). The FHWA finances the upgrading of many hundreds of roadway segments each year. This includes land acquisition for widening as well as construction. The individual states have the authority to adminster this program for the FHWA by establishing a priority list of projects to be done. This list is the main focus of the six-year HIP. Though none of the projects noted above are currently on the HIP, the city believes the top two or three will be placed on it in the next update. Any project placed on the six-year list is committed to 100% State/Federal funding. It is estimated that this action will reduce the total cost to the city for Western Cranston roadways by 50% in the next ten years.

The methodology for determining deficit is based on the assumption that these roads were adequate to carry the traffic generated in Western Cranston in 1980. At that time these roads functioned as rural roads and carried limited traffic. Since then, a considerable amount of subdivision activity has changed the rural traffic demands on these roads. A review of building permits issued in the last six years results in an estimate of the number of residential units built since 1980 contributing to the deficit. When costs are estimated,

a ratio of these residential units to the total residential capacity of Western Cranston is derived. This ratio will represent the percentage of total adjusted cost that cannot be included in the impact fee calculations.

4. Facilities: Scenario B & Scenario C

Facilities needs under Scenario B and C are similar to those posed under Scenario A, although increased due to the higher population volumes projected. There are no additional functional categories considered. Sewers have been omitted from all three scenarios due to the fee system presently in place requiring a $3,000 payment per unit where an extension of the sewer main in needed to service new developments. Water is omitted while a separate study of expansion costs is being conducted through the City's Public Works Department.

Schools are omitted from Scenarios B and C for the same reason enumerated in the Scenario A projection.

Fire services are omitted from Scenario B for the same reasons previously noted in the Scenario A projection. In Scenario C, however, sufficient population density is projected in the target area to justify the inclusion of a new station house and appurtenances before 1995.

For the remainder of this analysis references to school and fire facilities will be limited to projections beyond the ten-year time frame.

In the future, any or all of the latter three functional areas could be considered for inclusion in the impact fee system. In the event of that consideration, the level of need would have to be identified, the cost estimated and the service area of each defined so appropriate fees could be established. For each case, a certain threshold level of development must be achieved before the need for major facilities construction can be justified.

CHAPTER V

FINANCING

There are a number of factors that affect the cost of municipal facilities. These include economies-of-scale when building more than one facility such as ballfields; the bonding cost or interest rate; and the effect of outside aid such as state reimbursements. In each of the functional categories studied, these factors are considered so that the most accurate estimate of final cost may be derived.

TABLE 10

COST ADJUSTMENT FACTORS

1. **Economies of Scale**

	First Unit	Additional
Baseball Field	$ 80,000	$40,000/each
Soccer Field	$ 85,000	$70,000/each
Tennis Court	$ 20,000	$10,000/each
Basketball Court	$ 20,000	$10,000/each

2. **Bonding Costs**

   Capital Bonding Interest increases total facility costs by approximately 90%.

3. **State Aid**

Library	50%
Elementary Schools	31%
Roadways	50%*

* Assumes 50% state share of Western Cranston projects identified in six-year Highway Improvement Program.

A. Projected Capital Improvement Costs

Tables 11, 12, and 13 identify the projected ten-year costs for expansion or development of capital facilities under each category. Bonding cost is added to each scenario as a lump sum at the bottom of each table.

B. Cost Allocation

The method for equitably allocating the costs of the needed capital facilities to all the parties who benefit involves a number of assumptions and adjustments. As stated previously, the cost of the current deficiency must be factored out of each facility's total cost as must the dollar amount of state aid anticipated prior to estimating the impact fee.

To equitably assess a "fair share" of the cost to the city's new development, another adjustment is made in the formula. To make this adjustment, two assumptions are necessary:

1. That the city's bond for these capital facilities will be paid back in ten to twelve years.
2. That the city's growth over the long term will remain constant at approximately 283 residential units per year.

By making these assumptions, it is possible to adjust development costs by a factor proportionate to the level of growth projected for that time frame. One rule the city should adhere to in implementing the entire impact fee system

TABLE 11

PROJECTED CAPITAL ELEMENTS

-TEN YEAR PROJECTION-

-SCENARIO A-

FUNCTIONAL AREA	LAND acres	COST	FACILITIES	COST
1. Recreation	59.0	$1,180,000		$ 389,000
			2 Reg. Soccer	
			1 Reg. Baseball	
			1 Softball	
			3 Backstops	
			3 Basketball Ct.	
			2 Tennis Ct.	
			35 pc. Playground	
2. Library			Oaklawn Addition	$ 82,500
	2.0	$ 40,000	New Branch	$ 450,000
3. Roadway	N/A	Included in Development Cost	Wilbur Ave.	$ 540,000
			Phenix Ave.	$1,870,000
			Pippin Orchard Rd.	$ 850,000
			Natick Rd.	$ 420,000
			Seven Mile Rd	$1,200,000
4. Police	0	-0-	Building Addition	$ 828,970
Sub Total	61.0*	$1,220,000		$ 6,630,470
Interest		$1,098,000		$ 5,967,423
Total		$2,318,000		$12,597,893
Grand Total				$14,915,893
Ten Year Impact Fee Proceeds				$ 3,256,482
Remaining Cost				$11,659,411

* Does not include acreage needed for roadways.

TABLE 12

PROJECTED CAPITAL ELEMENTS

-TEN YEAR PROJECTION-

-SCENARIO B-

FUNCTIONAL AREA	LAND acres	COST	FACILITIES	COST
1. Recreation	59.9	$1,198,000	2 Reg. Soccer 2 Reg. Baseball 2 Softball 4 Backstops 4 Basketball Ct. 2 Tennis Ct. 35 pc. Playground	$ 482,000
2. Library			Oaklawn Addition	$ 82,500
	2.0	$ 40,000	New Branch	$ 457,725
3. Roadway	N/A	Included in Development Cost	Wilbur Ave. Phenix Ave. Pippin Orchard Rd. Natick Rd. Seven Mile Rd.	$ 540,000 $1,870,000 $ 850,000 $ 420,000 $1,200,000
4. Police	0	-0-	Building Addition	$ 838,945
Sub Total	61.9*	$1,238,000		$6,741,170
Interest		$1,114,200		$6,067,053
Total		$2,352,200		$12,808,223
Grand Total				$15,160,423
Ten Year Impact Fee Proceeds				$ 3,500,312
Remaining Cost				$11,660,111

* Does not include acreage needed for roadways.

TABLE 13

PROJECTED CAPITAL ELEMENTS

-TEN YEAR PROJECTION-

-SCENARIO C-

FUNCTIONAL AREA	LAND acres	COST	FACILITIES	COST
1. Recreation	61.44	$1,228,800	2 Reg. Soccer 2 Reg. Baseball 2 Reg. Little Lg. 2 Softball 5 Backstops 5 Basketball Ct. 4 Tennis Ct. 50 pc. Playground	$ 645,000
2. Library			Oaklawn Addition	$ 82,500
	2.0	$ 40,000	New Branch	$ 479,475
3. Fire	2.0	$ 40,000	New Station Engine Ladder Rescue	$ 500,000 $ 150,000 $ 250,000 $ 100,000
4. Roadway	N/A	Included in Development cost	Wilbur Ave. Phenix Ave. Pippin Orchard Rd. Natick Rd. Seven Mile Rd.	$ 540,000 $1,870,000 $ 850,000 $ 420,000 $1,200,000
5. Police	0	-0-	Building Addition	$ 855,000
Sub Total	65.44*	$1,308,800		$7,941,975
Interest		$1,177,920		$7,147,777
Total		$2,486,720		$15,089,753
Grand Total				$17,576,473
Ten Year Impact Fee Proceeds				$ 4,230,794
Remaining Cost				$13,345,679

* Does not include acreage needed for roadways.

is to be prepared to retire each individual impact fee fund once the bond which originally financed the improvements has been retired. Because of this, the factor noted above is used to adjust all capital facilities costs so that no individual will be disproportionately burdened with paying more than his/her share of the impact cost.

To complete the formulation, the total estimated cost is adjusted to reflect the proportion projected for ten years, then divided by the projected number of residential units to be permitted in that time. Use of this approach limits the total amount of proceeds the city may raise. Because the facility cost is factored down to a ten-year level, the city cannot possibly collect the full value of the facility through impact fees. It makes sense to limit the total amount it is possible to collect through the impact fee because, although new developments create the need for infrastructure expansion, they will not be the sole beneficiaries. In many ways, all the city's residents benefit when infrastructure systems expand. It results in better service and greater capacity per individual when considered on the whole. Thus, where future developments will be charged a new one-time fee for the purpose of providing additional city services they necessitate, the total proceeds collected will represent only a small portion of the targeted facilities' final cost.

It is important to note that this methodology would generate the same results using any time frame for adjustment. The ten-year basis is used so as to be consistent with the anticipated time of bond retirement. The general methodology for the impact fee assessment is as follows:

1) Estimate total cost of capital facilities to build-out
2) Adjust total cost by deleting expected amount of outside or State aid.
3) Subtract the cost for alleviating the deficit
4) Adjust remainder for ten-year projection.
5) Divide ten-year cost by ten-year residential protection.

Graphically:

$$\frac{(\text{Total Cost} - \text{Outside Aid} - \text{Deficit}) \times \text{Ten Year Adjustment}}{\text{Ten Year Residential Projection}} = \text{Impact Fee per Residential Unit}$$

C.) Expenditures:

The impact fee concept is based not only on each developer paying his fair share of the additional cost impact on the city's facilities, but also on new developments receiving their fair share of the benefits accrued through expansion of said facilities. A large part of the legal justification for implementing an impact fee system depends upon sound accounting practices. Once there is a current inventory of facilities, a set of standards, and a projection

of facilities needs, the city must verify its commitment to developing the needed facilities. Two actions are necessary.

1. Identify facilities in the capital improvement budget.
2. Establish sinking funds into which the proceeds of impact fee payments are to be deposited.

It is imperative to include all major capital facilities targeted for financing through impact fees in the city's capital improvement budget. This tie ensures municipal commitment as well as the interaction of all involved departments. By establishing sinking funds, the administration strengthens its commitment by targeting these funds for particular purposes. These funds must be "non-lapsing", meaning the monies deposited in them will not revert to the general treasury at the end of each fiscal year. An individual fund must be established for each functional area. This practice further sustains the city's commitment to to the development of specific facilities.

When the city administration decides to develop a facility targeted for impact fee funds, it may then expend some or all of the proceeds collected in the corresponding fund. It is projected that impact fee will finance between 15% and 30% of the total cost depending on the facility, its service area, and the amount of outside aid the city receives. This clearly requires a major city commitment to finance the remaining capital cost of facilities even with an impact fee system in place. The fee can reduce the

amount to be financed by the city in two ways.

1) Use of proceeds collected prior to the bond sale as a partial up-front payment.

2) Should the repayment time of the bond extend beyond ten years, additional proceeds may be collected until the bond is retired.

CHAPTER VI

ORDINANCE PROVISIONS

A. Subdivision Provisions:

A review of impact fee ordinances from Florida, California, Oregon, Illinois, and Rhode Island was conducted in research of this section, and those provisions applicable to the City of Cranston were considered for inclusion in the draft ordinance. The best combination of provisions should include the following elements:

1) Purpose
2) Definitions
3) Major Capital Facilities Needs
4) Establishment of Facility Service Areas
5) Establishment of Non-Lapsing Trust Funds
6) Assessment of Fees
7) Collection of Fees
8) Exemptions
9) Appeals
10) Expenditures
11) Annual Review

One aspect of impact fee ordinances which make them unique is the degree of specificity required for their application. Elements 3, 4, 5, and 6 are necessary to justify the impact fee assessments and limit the types of projects for which the proceeds may be spent. The fee system proposed in the ordinance is based on current dollar values of land and

developments. Element 11 is included so as to eliminate the need to project the effects of inflation on development estimates and the per unit fees. Changes in zoning that may affect development densities may also by evaluated annually.

Elements 8 and 9 are included as a safety net to allow an administrative relief procedure for those people with special circumstances affecting the fairness of this ordinance to their development. A draft ordinance appears in Appendix 4.

B. Building Code Provisions

In order to implement the proposed Capital Facilities Development Impact Fee system based on the per unit cost estimates formulated elsewhere in this report, it is imperative to supplement the proposed subdivision amendments with similar provisions in the building code. There are two reasons for which this is necessary. First is the city's desire to adhere to the "fair share" principle to determine the most equitable and legally defensible fee schedule. Second, the fee schedule formulated in this report is based on all vacant and underutilized parcels in the city regardless of their subdivision status. Therefore, the proposed fee schedule will be equitable only if it can be proportionally assessed to all future developments, whether being subdivided or not.[28] The wording of the Building Code Amendment would parallel that of the amendment to the Subdivision Regulations.

The best combination of provisions should include the following elements:

1) Application
2) Service Areas
3) Assessment
4) Distribution of Proceeds
5) Apportionment of Proceeds
6) Expenditures
7) Annual Review

These provisions are more succinct than those detailed in the subdivision amendment and reflect the different types of ordinances they are. The concept and intent are the same. A draft ordinance appears in Appendix 5.

CHAPTER VII

IMPLEMENTATION STRATEGIES

A. SUBDIVISION REGULATIONS

In most other jurisdictions where impact fees have been instituted, there are no specific state enabling acts. Rather, municipal and county governments have enacted impact fees under the umbrella of their traditional land use authority, and importantly as regulatory fees not taxes. In most areas, land use regulations requiring dedication of land for recreation or requiring certain off-site improvements for subdivision approval preceded impact fee measures and are considered analogous regulations. As already shown, these regulations have been upheld in many courts of law around the country.

Rhode Island, similarly, has no specific enabling legislation addressing impact fees. The **Ansuini** case noted previously offers relevant insight into the views of the Rhode Island Supreme Court. In this case, the court upheld the authority of the Cranston Planning Commission to require dedication of land for recreational purposes without the existence of specific enabling language. The Court held that under G.L.R.I., Sections 45-23-3, 45-23-6, and 45-23-21, planning commssions have broad authority to require a developer to pay costs "uniquely" attributable to his development.

The **Ansuini** case sets an important precedent. Although the City's 7% land dedication requirement was held invalid on its face, the court did not challenge the underlying concept that the city had the authority to require a dedication of land for recreation purposes. Rather, the Court held that the requirement of 7% was arbitrary since it was not attributed to any particular recreational need generated by the new development. Two precautionary points must be added to this discussion. The first is that in **Ansuini** the Court upheld a commonly accepted land use practice, namely land dedication, which had been in wide use for a number of years. Impact fees do not presently enjoy such wide acceptance in Rhode Island. Currently two municipalities have enacted them, South Kingstown and Woonsocket, and a number of nearby southern New England communities are considering them. With this somewhat limited base of local usage, the courts could be less inclined to affirm an impact fee ordinance as constitutional.

The second precautionary point relates to the method of implementing an impact fee system. So far, it has been assumed that these regulations would be added to the city's subdivision regulations as an amendment. The **Ansuini** case dealt with a subdivision amendment and the draft ordinance in Appendix 4 of this report is written as a proposal for subdivision amendment. South Kingstown instituted its impact fee system at the subdivision level, following the majority of communities previously enacting impact fee systems. This town

has been collecting a fee of $1,043.00 per residential unit which is assessed at the time of final plat approval. However, a problem directly related to the fair share issue arises when considering how to equitably assess those developments not requiring subdivision approval.

B. BUILDING CODE REGULATIONS

Can these regulations be implemented at the building permit stage for infill lots or for developments already possessing subdivision approval? Doing this would ensure equal treatment by charging all new developments for their fair share of the impact on municipal services and facilities. However, Rhode Island has no specific state enabling legislation to allow for this procedure and no case law from which to draw conclusions.

The City of Woonsocket, following the lead of Selah, Washington and Corvallis, Oregon has chosen to collect its impact fees at the building permit stage. Relying on the provisions of Section 118.1 of the State Building Code, Woonsocket has been collecting a fee of $2,372.00 per residential unit in addition to their standard building permit application fee. Section 118.1 of the Rhode Island State Building Code, (G.L.R.I. Section 23-27.3) reads, "The payment of the fee for construction, alteration, removal or demolition and for all work done in connection with or concurrently with the work contemplated by a building permit shall not relieve the applicant or holder of the permit from the payment of

other fees that may be prescribed by law or ordinance for water taps, sewer connections, electrical and plumbing permits, erection of signs and display structures, marquees or other appurtanant structures, or fee for inspections, certificates of use and occupancy for other privileges or requirements, both within and without the jurisdiction of the building department."

The reason for implementing a similar regulation in Cranston's Building Code is the added support this regulation would give the concept of equitable assessment. It would provide the city a mechanism for assessing a "fair share" of the cost for needed infrastructure expansion to all developments initiated after an established base date. These provisions would ensure that no developments could "slip through the cracks" of the city's regulatory land use policies.

C. SUMMARY

In this study we consider the option of using impact fees as a mechanism for partially alleviating the financial problems caused by Cranston's growth. Because this procedure is relatively new to Rhode Island, it must be properly documented, and assessments quantitively justified.

The validity of an impact fee ordinance depends heavily upon how equitable it is determined to be by the courts. Underlying the issue of equitability there is the question of pertinence of the ordinance as a land regulatory device. The

"Equal Protection Clause" of the 14th Amendment requires government to restrict actions which unnecessarily burden particular segments of the populace.

Refining the list of items to be considered for benefit from the impact fee was carried out using this concept as a basis. First considered were the major capital projects necessitated by the city's estimated ten-year growth. Those for which costs or service area could not be quantified were removed. Items under current study were removed. The final list represents those items unquestionably necessary in the next decade which lent themselves to reasonable estimations of need and cost. Each item and functional area stands on its own and is justified using its own set of criteria.

Impact fees, however, are just one of many mechanisms available to relieve pressure put on Cranston's infrastructure by the recent wave of growth. Those elements included in the foregoing chapters of this report and the draft ordinances are justifyable items to include in an impact fee system for the City of Cranston.

The next chapter identifies a number of alternative development control measures available to the city. This analysis does not assume these provisions to be exclusive of each other. It would be conceivable to adopt more than one of the mechanisms described in response to the city's growth requirements.

CHAPTER VIII

ALTERNATIVE DEVELOPMENT CONTROL MEASURES

The objective in this chapter is to clarify the regulatory context in which the impact fee option is being considered. One must realize that growth control and infrastructure expansion are opposing ends of the same dilemma. The developers view is that city facilities and services are not expanding fast enough to serve his needs. On the other hand, the city views the problem as development occuring too fast for the municipal captial budget to keep up. If growth is allowed to continue unchecked, the city may find itself in a situation where, because the infrastructure is so burdened, drastic measures become necessary.

The City Council, by authorizing this study, has embraced its responsibility to address the situation before it progresses to crisis proportions. In the process of researching municipal needs for the future, a number of other regulatory mechanisms were considered. The purpose of this approach is to suggest an overall growth management plan for the city. Through this holistic approach, we identified the following potentially useful tools to aid the city.

A. DEVELOPMENT SCHEDULING:

Under this scheme large developments would be phased so as to minimize the impact they might have on the city's facilities and to ensure better management of environmental impacts such as erosion. This concept has been advocated in

twelve Massachusetts communities for the purpose of regulating the rate at which residential development can occur.

The general concept of residential development scheduling is to regulate the number of building permits each development is allowed per year. This ensures developers are not denied the use of their land, while the city maintains control over infrastructure growth requirements. The limitation on building permits is issued at the time of subdivision approval and regulates the rate at which dwellings can be built within the subdivision.

Subdivision phasing is not new to Cranston. However, all phasing in the past has occurred at the developer's initiative in an effort to keep administrative and bonding costs manageable. Under this scheme the Planning Commission would be given authority to impose phasing subdivisions on a schedule which would ensure the city's capability to accept growth while minimizing adverse impacts to their infrastructure.

B. ENVIRONMENTAL IMPACT STATEMENT

This type of analysis which all federal agencies must prepare when proposing a "major action" could be implemented in Cranston as a requirement for approval of subdivisions having a certain minimum number of units. The Town of South Kingstown recently enacted an EIS requirement as part of the Town's overall growth management plan. The purpose of the impact statement is to provide a process for evaluation of

major project impacts as well as providing a mechanism to evaluate them on a collective basis. Each application would have to consider areas of concern to the city such as geology, topography, surface and groundwater resources, air resources, terrestrial and aquatic ecology. The EIS would conclude with an analysis of significant environmental impacts, unavoidable adverse effects, irreversible effects on resources, and growth inducing aspects.

This requirement could well serve the City of Cranston in regulating land use development and density in areas of high environmental constraint particularly in Western Cranston. It would give the city a method of transferring the responsibility for determining environmental constraint to the applicant. Implementation of an EIS regulation would give the Plan Commission greater powers of subdivision review. They could add, amend, or delete certain elements of the plan in the interests of environmental preservation.

C. STREAMBELT PROTECTION

Increased protection of stream systems can be achieved through encouragement of larger buffer zones. These areas could by extended to 150 feet or more from the edge of the stream in areas where the stream system performs the important task of carrying runoff from the from the built areas. Soil conditions, flood zone designation, and availability of other flood mitigation devices could affect where to implement such regulations.

D. OPEN SPACE ACQUISITION:

One direct method of controlling land use is to actually purchase open space areas of value. By establishing a policy for ranking areas of critical concern (such as wetlands and agricultural land), the city may maximize return on its expenditures. One method of financing such a policy could be to institute a real estate transfer tax. The proceeds of the tax could be placed into an escrow account and used when priority parcels become available. This type of tax often exempts first time homebuyers.

E. MORATORIUM OF BUILDING PERMITS:

This mechanism is favored only in cases where continued development threatens the public safety, health and welfare of the City's residents. It may only be enacted as a temporary measure while the City corrects that which has caused the public safety threat. Moratoria have been enacted by a number of communities to allow for expansion of infrastructure facilities or rewriting of comprehensive plans and zoning ordinances.

If the City were to choose to enact a moratorium, past experience shows it is most defensible as an act of the Zoning Board of Review. There are three criteria for successful implementation. The moratorium, first, must be of reasonable scope and duration. In most cases the moratorium does not suspend all construction activities. Often a limit is merely placed upon approval of subdivisions and condominiums, thus

allowing developers to continue securing building permits for previously approved subdivisions. In some cases, however, permit issuance has also been suspended for all but single family structures.

Second, it is important to document the record by clearly identifying the conditions creating the threat to public safety, health and/or welfare.

Last, it is extremely important to initiate whatever studies or projects are necessary to alleviate the cause of the problem. Without taking these steps the municipality risks losing a legal challenge.

In all cases a reasonable time frame must be specified by the City to avoid legal challenge.

CHAPTER IX

CONCLUSIONS AND RECOMMENDATIONS

A. COMMENTARY

Faced with a period of rapid residential growth and increasing demand for expanded capital facilities, this report has investigated numerous alternatives to assist Cranston in meeting its responsibilities to provide high quality services and facilities for its residents. Clearly, there is a strong relationship between residential growth and demands for improved roadways, recreation and open space, schools, libraries, municipal fire services etc. Unfortunately, Cranston's latest period of residential growth has coincided with an era of diminishing federal funds, which can only hinder the City's ability to provide needed facilities.

An "impact fee" system is one method of regulating land use by assessing individual developments a fair share of that portion of the capital facility burden that their development necessitates. It is an approach that is quite common in acceptance in the northeast. If conceived fairly and administered properly, it is an approach that is supported by a considerable body of case law.

Although the focus of this analysis centers on factors relevant to a viable impact fee ordinance, the alternative measures identified in Chapter VIII are not considered lightly. Impact fees are not the only method of regulating

residential growth so that a municipality may keep within its means in terms of providing new capital facilities. Other communities have instituted restrictive land use regulations such as building permit caps and streambelt protection, or in extreme circumstances, building permit moratoria. The main objective of these innovative tools is to regulate land use so that public facilities can be provided in a prudent and fiscally responsible manner.

An impact fee system offers a moderate approach because it allows for planned growth while recognizing a financial link between new development and the capital facilities burdens that will inevitably follow. With proper administration, it can become an important addition to the City's existing tools for land use regulation and will improve the quality of Cranston's development into the 1990's and beyond.

B. CONCLUSIONS

The City of Cranston possesses a number of characteristics that make it a unique place. It is the third largest city in the State and possesses the oldest population of all 39 cities and towns. Yet, Cranston is still growing, with Western Cranston becoming its newest neighborhood. It has an active economic development climate with two industrial parks and also serves as home to the State Institutions.

By far, Cranston's strongest characteristic is its attractiveness as a place to live. Western Cranston particularly offers all the amenities of living in a City including proximity to the interstate highways and nearby Providence, combined with the advantages of a rural residential setting. In order to adequately serve these new residents, the City must concern itself with regulating expansion of public services and facilities in a rationally planned manner. This is possible only if there is a clearly identified set of priorities. Haphazard residential development will otherwise create stress on all infrastructure facililties thus undermining the City's growth control policies.

As a response to these needs, the impact fee approach has many assets to consider. First, it is derived from the long accepted system of exactions for public dedication. Second, the concept is simple and quantifyable. Those developments creating an increased need for infrastructure improvements should, under this type of system, be assessed a fair share of the cost required to provide the necessary improvements. Third, the impact fee is targeted to provision of specific facilities which will directly benefit those required to pay it. Fourth, enactment of an impact fee system requires a commitment on the part of the City to provide said facilities.

From a legal standpoint, imposition of an impact fee system has merits and weaknesses. As noted previously, this method of exaction draws upon case law instead of enabling legislation for its legal strength. Most of the pertinent case law originates in Florida, California, and the Midwest. however, one of the most instructive cases took place in Cranston. The **Ansuini** case set the Rhode Island precedent by invalidating Cranston's 7% requirement as arbitrary while affirming the City's regulatory right to exact land from a developer toserve the public as recreational space. Using this case and others noted previously it is reasonable to assume an ordinance can be drafted which is capable of withstanding a legal challenge.

From the foregoing analysis it is concluded that enactment of an impact fee system is adequately warrented in Cranston. Upon review of the three scenarios developed, Scenario A is recommended as the basis for the impact fee amounts to be collected. The reasoning behind selection of Scenario A is very simple. Although it is inevitable that future zoning changes will occur in Western Cranston, there is no way to know precisely which areas will change nor to which density designation. Inclusion of the annual review provision in the draft ordinance removes this problem and that of projecting discount rates and construction costs into the future. Each year the fee rates would be adjusted to reflect changes in the economic environment as well as revisions made

to the City's Official Zoning Map.

In the context of the City's budgeting process impact fees are not meant to replace the City's capital improvement program or the importance of the general tax base in financing capital facilities expansion. Their singular purpose is to supplement this base in paying the cost of capital facilities acquisition and construction, to the extent new developments force the necessity for expansion.

By itself, a system of impact fees will not cure all of a communities growing pains. A community's decision to adopt an impact fee system implies a strong community commitment to fund those portions of capital facility needs that a fair fee system cannot collect. Even with a successful impact fee program, the bulk of capital financing for new facilities will still come from the municipality. If growth in Western Cranston continues at current levels, the City faces many years of demand for new facilities to meet the demands of new residents. Under an impact fee system the City's Capital Improvement Program will serve as the blueprint for this expansion.

C.) RECOMMENDATIONS:

From an operational perspective there are a number of actions which should be taken to ensure proper application of the "fair share" concept underlying this analysis.

First a two pronged effort is proposed to bring all new development in Cranston under the impact fee umbrella. This report contains a draft amendment to the City's subdivision rules and regulations for all new residential subdivisions in Appendix 4. If adopted, developers would be required to pay their impact fee assessment up front, as a requirement prior to plat recording. The funds would be divided into the appropriate capital accounts, to be used at a future date only for the projects for which they were intended.

A separate ordinance, similar in content to that cited above, will be required in order to collect similar impact fees for previously approved subdivisions, or for development not requiring subdivision approval. The mechanism for this fee will be an addition to the building permit fee and an appropriate amendment to Chapter 5 of the City Code. Draft wording for this amendment appears in Appendix 5 of this report.

Third, a mechanism should be established to deposit, with the City Treasurer, the proceeds of this assessment.

Fourth, the City should establish non-lapsing trust funds and design a detailed procudure for expenditure of said funds, as mandated in the proposed subdivision amendment. Because it is necessary to expend the impact fee proceeds within a reasonable time frame, the projects identified in this report should be given priority by the administrators of their

respective departments. The capital budget process should also be revised to identify and consider separately those projects which qualify for inclusion in the impact fee system.

From an administrative standpoint there are the following general recommendations. First, although impact fee systems have been adopted, in communities nationwide, under the general land use regulatory power, the passage of special enabling legislation should be sought. As this mechanism is becoming increasingly popular, the City's administration should join forces with others in proposing, to the Rhode Island General Assembly, the passage of new legislation specifically authorizing cities and towns to collect impact fees for major capital expenditures necessitated by new residential growth.

The City administration should also consider the other regulatory mechansims detailed in Chapter VIII. Because impact fee systems are limited in application, other forms of land use regulations should be considered to protect the environment, as well as the City's capital budget, from unrestrained growth.

Finally, because growth is inevitable in Cranston and public needs change with time, the methodology for calculating the impact fee should be considered for major revision periodically. The City administration must keep in mind that impact fees, as well as other land use regulatory measures, are not meant to generate funds to broaden the tax base.

Rather, they are meant to supplement the tax base by equitably apportioning the benefits from them. Early commitment by the City is imperative to legitimize the assessment of impact fees. This and a strict dedication to maintaining the most equitable fee schedule will ensure successful enactment and implementation of this regulation.

REFERENCES CITED

1. Building Permit Annual Reports, 1982-1985, Building Inspections Office, Cranston, RI, Produced annually,

2. "Ordinance Number 1132", 1980, City of Marysville, Washington, Section 1.

3. "Selah Code 9.17 and 12.38", 1982 City of Selah, Washington. Resolution of City Council.

4. "Ordinance Number 86-0-34", 1986, City of Woonsocket, RI. Section 1.

5. "Substantive Requirements", 1986 Subdivision Regulations, Town of South Kingstown, RI.

6. Simplifying and Understanding the Art and Practice of Impact Fees., 1986, James B. Duncan AICP et al. (photocopied) p.10.

7. Ibid pp. 5-9

8. Weber Basin Homebuilders Assn. v Roy City, 26 Utah 2d 215, (1971).

9. Strahan v. City of Aurora 38 Ohio Mics. 37, (1973).

10. Oregon State Homebuilders v City of Tigard, 604 p 2d 886, (1979).

11. New Orleans v Dukes 427 US 297, (1976).

12. Frank Ansuini v City of Cranston 264 A 2d 910, (1970).

13. Information in this table was assembled through contact with Cranston Department of Planning, Public Works, Education, Recreation, Libraries, Police and Fire. It represents the most up-to-date figures available.

14. Population Trends, 1984, City Planning Commission, Cranston, RI. p 2.

15. Building Permit Annual Reports, 1980-1985, Building Inspections Office, Cranston, RI, produced annually.

16. Population Trends, 2984, City Planning Commissions, Cranston, RI. pp. 20, 32.

17. R.I. Department of Health, 1980-1985, unpublished birth and death rate data.

18. Technical Paper 100, March 1983, R.I. Office of State Planning Department of Administration, Providence, Rhode Island.

19. Comprehensive Plan Report, 1975, City Planning Commission, Cranston, Rhode Island pp. 43, 47.

20. Ibid p. 34 (Recreation Standard)

21. Police Standard is adapted from the F.B.I. suggested standard of 2 officers per 1,000 population

22. Police floor area standard is based on industry standard specified by Police Department officials.

23. Library floor area standard is based on industry standard of .51 square feet per person.

24. School floor area standard is based on industry standard specified by Officials of State Department of Education.

25. Capital Improvement Program, 1987, City of Cranston, Rhode Island p.3

26. Ibid p.2

27. Rules and Regulations For Governing and Restricting The Platting of Other Subdivision of Land, 1959 as amended, City Planning Commission, Cranston, Rhode Island.

28. Ibid p. 1.1

APPENDIX I

CITY OF CRANSTON

Population Trends
1960-1980

Census Tract	1960 Population	1970 Population	% Change 1960-1970	1980 Revised Figures	% Change 1970-1980
Pawtuxet, 134	5,103	5,643	+10.6	4,909	-13.1
Edgewood, 135	5,339	5,309	- .6	5,306	- .06
Park View, 136	3,302	3,245	- 1.7	3,167	- 2.4
Auburn East, 137.01	5,100	4,875	- 4.4	4,259	-12.6
Auburn West, 137.02	3,369	3,352	- .5	3,002	-10.4
Eden Park, 138	5,071	4,948	- 2.4	5,048	+ 2.0
Garden City, 139	2,323	3,370	+45.0	3,136	- 7.1
Forest Hills, 140	6,671	6,530	- 2.1	6,093	-6.7
Arlington, 141	4,529	4,448	- 1.8	4,213	- 6.3
Pettaconsett, 142	5,979	5,676	- 5.1	3,949	-31.4 *
Dean Estates, 143	2,752	4,322	+57.1	4,912	+13.7
Garden Hills, 144	1,969	3,885	+97.3	4,029	+ 3.7
Meshanticut, 145	4,201	5,256	+25.1	5,456	+ 3.8
Oaklawn, 146	1,778	2,624	+47.6	3,138	+19.6
Knightsville, 147	6,752	6,587	- 2.5	6,804	+ 3.3
Thornton, 148	2,528	4,217	+66.8	4,571	+ 8.4
GROSS POPULATION	66,766	74,287	+11.3	71,992	- 3.1
NET POPULATION (not including institutional population)		70,204		69,754	- .64

*Large decline caused by significant decline in institutional population. If institutional population is not included in 1970 or 1980 figures, the Census Tract experienced a slight increase in population (1,583 in 1970, 1,620 in 1980.)

City Planning Commission
September, 1981

APPENDIX 2

- CRANSTON'S GROWTH IN RESIDENTIAL UNITS -

	West	10-year Projection	East	10-year Projection	Total
Scenario A:	6,880		2,961		9,841
Units Precluded	- 42		- 18		- 60
Net Additional Units	6,838	1,981	2,943	853	9,781
Units Permitted at Build-out					
A-80	5,564	1,661	0	0	
A-20	1,274	322	2,943*	853	
Existing Units	3,825		25,033		28,858
Total	10,663		27,964		
Grand Total at Build-out					38,639 UNITS

	West	10-year Projection	East	10-year** Projection	Total
Scenario B:	8,336		2,961		11,297
Units Precluded	- 52		- 22		- 74
Net Additional Units	8,284	2,071	2,939	735	11,223
Units Permitted at Build-out					
A-80	4,808	1,202	0	0	4,808
A-20	3,476	869	2,939	735	6,415
Existing Units	3,825		25,033		28,858
Total	12,109		27,972		
Grand Total at Build-out					40,081 UNITS

	West	10-year Projection	East	10-year** Projection	Total
Scenario C:	12,066		2,961		15,027
Units Precluded	- 184		- 79		- 263
Net Additional Units	11,882	2,285	2,882	554	14,764
Units Permitted at Build-out					
A-80	0	0	0	0	
A-20	11,882	2,285	2,882*	554	14,764
Existing Units	4,093		24,765		28,858
Total	15,975		27,647		
Grand Total at Build-out					43,622 UNITS

* Includes A-20, A-12, A-8, A-6, B-1, B-2.

** This figure is the average at City build-out. All calculations assume E. Cranston build-out in 35 years equaling 853 per year.

APPENDIX 3

IMPACT FEE TABLE

TEN YEAR PROJECTION

SCENARIO A

	Citywide	Western	Proceeds
RECREATION	$422.34	$422.34	$1,195,235
LIBRARY		$181.21	$ 358.981
ROADS		$614.83	$1,217,984
POLICE	$171.12	$171.12	$ 484,282
TOTAL FEE PER UNIT	$593.46	$1,389.50	
TOTAL PROCEEDS			$3,256,482

APPENDIX 3

IMPACT FEE TABLE

TEN YEAR PROJECTION

SCENARIO B

	Citywide	Western	Proceeds
RECREATION	$489.47	$489.47	$1,431,222
LIBRARY		$178.35	$ 369,383
ROADS		$605.45	$1,253,882
POLICE	$152.47	$152.47	$ 445,825
TOTAL FEE PER UNIT	$641.94	$1,425.74	
TOTAL PROCEEDS			$3,500,312

APPENDIX 3

IMPACT FEE TABLE

TEN YEAR PROJECTION

SCENARIO C

	Citywide	Western	Service Area	Proceeds
POLICE	$170.08	$170.08	$ 170.08	$ 533,739
RECREATION	$512.43	$512.43	$ 512.43	$1,608,014
FIRE			$ 457.86	$ 364,002
LIBRARY		$170.69	$ 170.69	$ 390,046
ROADS		$584.24	$ 584.24	$1,334,993
TOTAL FEE PER UNIT	$682.51	$1,437.44	$1,895.30	
TOTAL PROCEEDS				$4,230,794

APPENDIX 4

THE CITY OF CRANSTON

ORDINANCE OF THE CITY COUNCIL

AMENDING THE RULES AND REGULATIONS FOR GOVERNING AND RESTRICTING THE PLATTING OR OTHER SUBDIVISION OF LAND (IMPACT FEE)

Passed *No.*

Council President

Approved

Mayor

It is ordained by the City Council of the City of Cranston as follows:

SECTION 1. The "Rules and Regulations for Governing and Restricting the Platting or Other Subdivision of Land" as amended, is hereby amended by adding thereto the following new sub-section:

SECTION IIC. Capital Facilities Development Impact Fee

1. Purpose: In order to adequately provide for expansion of Cranston's municipal capital facilities in the functional categories of recreation, police, library, and roadway, the City Council hereby determines that it is in the public interest to enact and impose a Capital Facilities Development Impact Fee on all future residential development. The purpose of collecting the Capital Facilities Development Impact Fee (hereinafter called "the Fee") is to recover a fair share of the cost the City incurs to provide expansion of its major capital facilities, to an accepted standard, as Cranston continues to grow. The assessment charged to the subdivider/developer under this section is calculated on a per-unit basis. The fees collected shall be assessed in accordance with the table set forth in subsection C6 of this section and deposited into separate non-lapsing trust funds for each of the functional categories included. Expenditure of the proceeds collected through this fee shall be restricted to the items listed in subsection C3 of this section as established and annually amended.

2. Definitions:

a.) Service Area: That area defined by geographic boundaries noted elsewhere in this section, from which each capital improvement draws its potential users.

b.) Western Cranston: When noted as a service area, that part of the City included within the boundaries of Census Tracts 145 and 146 as defined in the 1980 Census of Population.

c.) Citywide: When noted as a service area, any location within the corporate limits of the City of Cranston.

d.) Major Capital Facilities: Those capital improvement needs which cannot, or traditionally are not, financed from the City's operating budget.

3. Major Capital Facilities Needs: In accordance with the stated purpose of this section, the Fee shall be assessed to new developments in order to defray a fair share portion of the cost for the following new or expanded capital facilities.

FUNCTIONAL AREA	LAND (acres)	COST	FACILITIES	COST
1. Recreation	59.0	$1,180,000	Development of ballfields, basketball, tennis, soccer & other recreational facilities	$ 389,000
2. Police	0	-0-	Building addition	828,970
3. Library	0	-0-	Oaklawn addition	82,500
	2.0	40,000	New Branch	450,000
4. Roadway	N/A	Included in Development cost	Improvements to various arterial roads in Western Cranston	4,880,000
TOTAL	61.0	$1,220,000		$6,630,470

4. Establishment of Facility Service Areas: In order to properly assess the Fee for each functional category to those developments reasonably related to the facility need created, the following service areas are hereby established. These service areas shall be recognized for the lifetime of their corresponding funds or until such time, if any, that the standards currently used are amended. Service areas may be expanded, reduced, moved geographically, added or deleted only by a majority vote of the Planning Commission.

Recreation	Citywide
Police	Citywide
Library	Western Cranston
Roadway	Western Cranston

5. Establishment of Non-lapsing Trust Funds: In accordance with the specified goals and objectives of this Ordinance, there are hereby established the following non-lapsing trust funds into which the proceeds collected under subsection C6 of this section shall be deposited.

a.) Recreation Trust Fund
b.) Police Trust Fund
c.) Library Trust Fund
d.) Roadway Trust Fund

These trust funds shall be the only funds into which the Fee proceeds may be deposited until such time as (A) all capital facilities to be financed by such funds are completed, after which, said fund shall be retired, or (B) the need for additional fund(s) are deemed necessary by the City Council and subsequently established.

6. Assessment of Fees: There is hereby established a Capital Facilities Development Impact Fee schedule for the four functional categories of recreation, police, libraries and roadway as follows:

a.) For developments outside of Western Cranston:

Recreation	$422.34/dwelling unit
Police	$171.12/dwelling unit
Total	$593.46/dwelling unit

b.) For developments in Western Cranston:

Recreation	$422.34/dwelling unit
Police	$171.12/dwelling unit
Library	$181.21/dwelling unit
Roadways	$614.83/dwelling unit
Total	$1,389.50/dwelling unit

7. Collection of Fees: This Fee is applicable to all subdivisions that are recorded with the City Clerk after the effective date of this ordinance. The City Plan Commission shall assess the Fee at the time of final plat approval. The City Treasurer shall collect said Fee prior to plat recording. The proceeds shall be deposited into the appropriate fund as determined by the City Plan Commission in accordance with the formula set forth in Subsection C6 of this section.

8. Exemptions:

a.) Any parcel of land which, on the effective date of this Ordinance, has been recorded with the City Clerk as part of an accepted plat or subdivision.

b.) All subdivisions designated solely for the purpose of establishing and carrying on commercial or industrial business operations.

c.) At the discretion of the Planning Commission, by a majority vote, all or part of the Fee, for any or all functional categories, may be waived in return for land dedication, or provision or construction of specific improvements of equal or greater value to that which is waived. No exemption shall be granted for dedication of land for public road right-of-way; construction of roadways, installation of public water; surface drainage and/or detention basins; subsurface drainage; and subsurface wastewater removal systems required currently or in the future as a standard prerequisite for subdivision approval.

9. Appeals: Any person who is aggrieved by any decision made by the City Plan Commission relative to the administration of this section may appeal that decision to the Platting Board of Review by filing a written request with the secretary of the Platting Board of Review within fourteen days after said decision, describing with particularity the decision of the City Plan Commission from which the person appeals. The Platting Board of Review shall, at its next regular meeting, hear and consider the appeal. In determining the appeal, the Platting Board of Review shall determine whether the Planning Commission's decision is correct and may affirm, modify, extend or overrule that decision.

10. Expenditures: Expenditures from funds established in subsection C5 of this Section may be made by the City Council for the purposes of acquisition and development of the major capital facilities identified in subsection C3 of this Section, in conjunction with expenditures made for same through the City's Capital Improvement Program. All such expenditures must be directly related to the mitigation of the impacts of residential growth in the City of Cranston.

11. Annual Review: The City Plan Commission shall annually review the Fee Schedule established herein and shall report to the City Council, at its first meeting of each fiscal year, the results of such review including any recommended revisions of said schedule based on changes in construction or other capital cost indexes, and/or changes in zoning. The City Plan Commission shall also consider changes and/or amendments in the Fee formulation and assessments, including the establishment of new trust funds for the purpose of collecting capital development impact fees for major capital facilities not currently anticipated.

SECTION 2. This ordinance shall take effect upon its final adoption.

Approved as to form and legality:

_____

City Solicitor

APPENDIX 5

THE CITY OF CRANSTON

ORDINANCE OF THE CITY COUNCIL

AMENDING CHAPTER 5 OF THE CODE OF THE CITY OF CRANSTON, 1970, AS AMENDED (BUILDING CODE)

No.

Passed

Council President

Approved

Mayor

It is ordained by the City Council of the City of Cranston as follows:

SECTION 1. Chapter 5-2 of the Code of the City of Cranston, 1970, entitled "Building Code" is hereby amended by adding thereto the following:

(b.) Schedule of Capital Facilities Development Impact Fees.

(1.) Application: For all new residential construction, not requiring subdivision approval, after the effective date of this ordinance, the owner is required to pay a Capital Facilities Development Impact Fee, (hereafter called "the Fee") in accordance with the following schedule:

Service Areas	Fee
Eastern Cranston	$593.46/dwelling unit
Western Cranston	$1,389.50/dwelling unit

(2.) Service Areas: Service area boundaries are defined as follows:

(a.) Eastern Cranston: The entire City excluding land area located within census tracts 145 and 146.

(b.) Western Cranston: That land area of the City located within census tracts 145 and 146.

(3.) Assessment: The Fee shall be assessed by the Building Inspector and paid in full as part of the permit application process. In special cases, the Building Inspector may at his discretion allow an applicant to pay 50% of the Fee at the building permit application stage, requiring the remainder to be paid at any time prior to issuance of a certificate of occupancy. In such cases the dollar amount of the impact fee yet to be paid shall constitute a lien on the property should the owner choose to sell said property prior to receiving an occupancy permit. In no case shall a certificate of occupancy be issued until the impact fee for the property is paid in full.

(4.) Distribution of proceeds: Revenue from the impact fee assessments shall be placed in the accounts designated below:

(a.) Recreation Trust Fund
(b.) Police Trust Fund
(c.) Library Trust Fund
(d.) Roadway Trust Fund

(5.) Apportionment of Proceeds: The formula for apportioning the impact fee proceeds to the four funds shall be dependant upon the service area in which the property being built upon is located. The Fee collected and its apportionment shall conform to one of the two following sub-paragraphs:

(a.) For developments in Eastern Cranston

Recreation	$422.34/dwelling unit
Police	$171.12/dwelling unit
Total	$593.46/dwelling unit

(b.) For developments in Western Cranston:

Recreation	$422.34/dwelling unit
Police	$171.12/dwelling unit
Library	$181.21/dwelling unit
Roadways	$614.83/dwelling unit
Total	$1,389.50/dwelling unit

(6.) Expenditures: Expenditures from funds identified in sub-paragraph (4) above shall be made by the City Council through the Capital Improvement Program to provide expansion of major capital facilities necessitated by residential growth.

(7.) Annual Review: The Building Inspector shall annually review the Fee schedule established herein and shall report to the City Council, at its first meeting of each fiscal year, the results of such review including any recommended revisions of said schedule based on changes in construction or other capital cost indexes, and/or changes in zoning. The Building Inspector shall also consider changes and/or amendments in the Fee formulation and assessments, including the establishment of new trust funds for the purpose of collecting capital development impact fees for major capital facilities not currently anticipated.

SECTION 2. This ordinance shall take effect upon its final adoption.

Approved as to form and legality:

_____ _____

City Solicitor

BIBLIOGRAPHY

Building Inspections Depatment. Building Permit Annual Reports. 1980-1985. City of Cranston, RI.

City of Cranston. 1987. Capital Improvement Program. Cranston, RI.

City of Marysville. 1980. "Ordinance Number 1132". Marysville City Code. Marysville, Washington.

City of Woonsocket. 1986. Ordinance Number 86-0-34". Woonsocket City Code. Woonsocket, RI.

City of Selah. 1982. "Chapter 917: Community Facilities Development Charge". Selah City Code. Selah, Washington.

City Planning Commission. 1975. Comprehensive Plan Report. City of Cranston, RI.

City Planning Commission. 1984. Population Trends. City of Cranston, RI.

City Planning Commission. 1987. Rules and Regulations for Governing and Restricting the Platting or Other Subdivision of Land. 1959 as amended. City of Cranston, RI.

Duncan, James B. 1981. "Impact Fees: Requiring New Development to Pay its Own Way". National American Planning Association Conference. Montreal, Canada.

Duncan, James B., Terry D. Morgan, and Norman R. Standerfer. 1986. Simplifying and Understanding The Art and Science of Impact Fees. City of Austin Planning Department. Austin, TX.

Frank Ansuini v City of Cranston 264 A 2d 910, (1970).

Netter, Edith. "Legal Precendents For, and Limitations on Developer Exactions". ALI-ABA Course of Study Land Planning and Regulation of Development. American Planning Association. Chicago, Illinois. May 7-9, 1981. pp. 15, 17-25.

Netter, Edith M. 1984. Land Use Law: Issue for the Eighties, Part II. Planners Press, American Planning Association. Washington, DC.

Nicholas, James C. "Designing Impact Exactions to Meet Judicial Standards". ALI-ABA Course of Study Land Planning and Regulation of Development. Florida Atlantic University, Department of Economics. Boca Raton, Florida. May 7-9, 1981.

O'Connell, Daniel W. and Schocch, Charles F. 1984. Impact Fees: The Current State of the Law and Practice in Florida". APA Planning and Law Division Newsletter. Vol. 8, No. 2, Chicago, IL.

RI Department of Health/Division of Vital Statistics. 1985. "Resident Births by Census Tract" in Annual Reports 1980-1985. Providence, RI.

RI Office of State Planning 1982. Highway Functional Classification System for the State of Rhode Island 1995-2005. Technical Paper 100. Providence, RI.

Silverstein, Elisa A. 1986. A study of Impact-Fees. South Kingstown, Rhode Island. University of Rhode Island, Master Thesis.

Town of South Kingstown, 1986. Subdivision Regulations South Kingstown, RI.

Vranicar, John. 1981. "Setting Zoning and Subdivision Fees: Making Ends Meet." APA PAS Report, No. 357. Chicago, Ill.