C. C. 108

City of Cambridge

MASSACHUSETTS

Agenda #1A City Manager to use "free cash" to offset the FY 1990 tax levy. In City Council October 2 1989

	YEA	NAY	ABSENT	PRESENT
Mr. Thomas W. Danehy	✓			
Mr. Francis H. Duehay	✓			
Ms. Saundra Graham	✓			
Mrs. Sheila T. Russell	✓			
Mr. David E. Sullivan	✓			
Mr. Walter J. Sullivan			✓	
Mr. William H. Walsh	✓			
Ms. Alice K. Wolf	✓			
Mayor Alfred E. Vellucci	✓			
	8	0	1	

CCM-101

City of Cambridge

Agenda Item No. 1(A)

IN CITY COUNCIL

October 2, 1989

ORDERED:

That the City Manager be and hereby is authorized to use $4,500,000. in available "free cash" as an offset to the FY1990 tax levy.

In City Council October 2, 1989.
Adopted by a yea and nay vote:-
Yeas 8; Nays 0; Absent 1.
Attest:- Joseph E. Connarton, City Clerk.

A true copy;

ATTEST:- Joseph E. Connarton

Joseph E. Connarton, City Clerk.

C. C. 108

City of Cambridge

MASSACHUSETTS

Agenda # 1B classifying property into five classes.

In City Council October 2, 1989

	YEA	NAY	ABSENT	PRESENT
Mr. Thomas W. Danehy	✓			
Mr. Francis H. Duehay	✓			
Ms. Saundra Graham	✓			
Mrs. Sheila T. Russell	✓			
Mr. David E. Sullivan	✓			
Mr. Walter J. Sullivan			✓	
Mr. William H. Walsh	✓			
Ms. Alice K. Wolf	✓			
Mayor Alfred E. Vellucci	✓			
	8	0	1	

CCM-101

City of Cambridge

Agenda Item No. 1(B)

IN CITY COUNCIL

October 2, 1989

ORDERED:

That the City Council classify property within the City of Cambridge into five property classes allowed for the purpose of allocating the property tax levy.

In City Council October 2, 1989.
Adopted by a yea and nay vote:-
Yeas 8; Nays 0; Absent 1.
Attest:- Joseph E. Connarton, City Clerk.

A true copy;

ATTEST:- Joseph E. Connarton

Joseph E. Connarton, City Clerk.

C. C. 106

City of Cambridge

MASSACHUSETTS

Agenda # 1C minimum residential factor of 65%.

In City Council October 2, 198 9

	YEA	NAY	ABSENT	PRESENT
Mr. Thomas W. Danehy	✓			
Mr. Francis H. Duehay	✓			
Ms. Saundra Graham	✓			
Mrs. Sheila T. Russell	✓			
Mr. David E. Sullivan	✓			
Mr. Walter J. Sullivan			✓	
Mr. William H. Walsh	✓			
Ms. Alice K. Wolf	✓			
Mayor Alfred E. Vellucci	✓			
	8	0	1	

CCM-101

City of Cambridge

Agenda Item No. 1(C)

IN CITY COUNCIL

October 2, 1989

ORDERED:

That the City Council hereby adopt a minimum residential factor of 65%.

In City Council October 2, 1989.
Adopted by a yea and nay vote:-
Yeas 8; Nays 0; Absent 1.
Attest:- Joseph E. Connarton, City Clerk.

A true copy;

ATTEST:- Joseph E. Connarton

Joseph E. Connarton, City Clerk.

C. C. 108

City of Cambridge

MASSACHUSETTS

Agenda # 1D residential tax rate $9.50 commercial, industrial and personal property tax rate $18.17.

In City Council October 2, 198 9

	YEA	NAY	ABSENT	PRESENT
Mr. Thomas W. Danehy	✓			
Mr. Francis H. Duehay	✓			
Ms. Saundra Graham	✓			
Mrs. Sheila T. Russell	✓			
Mr. David E. Sullivan				✓
Mr. Walter J. Sullivan			✓	
Mr. William H. Walsh	✓			
Ms. Alice K. Wolf	✓			
Mayor Alfred E. Vellucci	✓			
	7	0	1	1

CCM-101

City of Cambridge

Agenda Item No. 1(D)

IN CITY COUNCIL

October 2, 1989

ORDERED:

That the City Council approve a twenty (20) percent residential exemption for owner-occupied homes, which should result in a residential tax rate of $9.50, and a commercial, industrial and personal property tax rate of $18.17, upon approval by the Department of Revenue.

In City Council October 2, 1989.
Adopted by a yea and nay vote:-
Yeas 7; Nays 0; Absent 1; Present 1.
Attest:- Joseph E. Connarton, City Clerk.

A true copy;

ATTEST:- Joseph E. Connarton

Joseph E. Connarton, City Clerk.

C. C. 108

City of Cambridge

MASSACHUSETTS

Agenda # 1E increase by 100% the normal value of staturory exemptions for fiscal year 1990.

In City Council October 2, 1989

	YEA	NAY	ABSENT	PRESENT
Mr. Thomas W. Danehy	✓			
Mr. Francis H. Duehay	✓			
Ms. Saundra Graham	✓			
Mrs. Sheila T. Russell	✓			
Mr. David E. Sullivan	✓			
Mr. Walter J. Sullivan			✓	
Mr. William H. Walsh	✓			
Ms. Alice K. Wolf	✓			
Mayor Alfred E. Vellucci	✓			
	8	0	1	

CCM-101

City of Cambridge

Agenda Item No. 1(E)

IN CITY COUNCIL

October 2, 1989

ORDERED:

That the City Council in accordance with the General Laws, Section 4 of Chapter 73 of the Acts of 1986, hereby increase by 100% the normal value of statutory exemptions for FY-1990.

In City Council October 2, 1989.
Adopted by a yea and nay vote:-
Yeas 8; Nays 0; Absent 1.
Attest:- Joseph E. Connarton, City Clerk.

A true copy;

ATTEST:- Joseph E. Connarton
Joseph E. Connarton, City Clerk.

CITY OF CAMBRIDGE

CAMBRIDGE, MASSACHUSETTS 02139
TEL. 498-9011

EXECUTIVE DEPARTMENT
ROBERT W. HEALY
City Manager

RICHARD C. ROSSI
Deputy City Manager

October 2, 1989

To the Honorable, the City Council:

RECOMMENDATIONS:

1. That the City Council authorize the use of $4,500,000 in Unreserved Fund Balance to offset FY 1990 expenditures as called for in the FY 1990 adopted budget.

2. That the City Council classify property within the City of Cambridge into the five classes allowed for the purpose of allocating the tax levy. It is further recommended that the City Council adopt a minimum residential factor of 65%, the legal minimum permitted for Cambridge.

3. That the City Council approve a 20% residential exemption for owner occupied homes, which should result in a residential tax rate of $9.50 and a commercial, industrial, and personal property tax rate of $18.17, upon approval by the Department of Revenue.

4. That the City Council, in accordance with the state law, vote to double the normal value of statutory exemptions for FY 1990.

SUMMARY:

The establishment of the tax rate is the final step in the annual fiscal process that begins with the submission and adoption of the annual City budget. For FY 1990 the adopted budget, as amended by your actions of September 11, 1989, calls for a tax levy of $109.5 million, an increase of $15 million over FY 1989. While the $109.5 million levy is substantially above the FY 1989 levy, I am pleased to report that because of continued economic development, residential properties that were on the tax rolls last year will bear only $3,032,000 of the increase. The balance will be paid by newly constructed residential property and existing and newly constructed commercial property.

The following table details how the increased levy will be borne by various categories.

TABLE I

ANALYSIS OF $15 MILLION TAX LEVY INCREASE
(in millions)

$ 5,107	To be paid by new Commercial Properties
$ 5,582	To be paid by existing Commercial Properties
$ 1,279	To be paid by new Residential Properties
$ 3,032	To be paid by existing Residential Properties
$15,000	Total increase in Tax Levy

As the City Council is aware, FY 1990 is a full revaluation year as required by the Department of Revenue. In order to meet the high standards for certification by the Department of Revenue, a full reassessment was made of each residential and commercial parcel of real estate, as well as each personal property account. The revaluation process, as certified by the Department of Revenue, has determined that the total valuation of taxable property in Cambridge is now $8,516,263,200, an increase of 16% over FY 1989. However unlike recent years, the increase in value of existing residential properties has been minimal, and in many cases residential values have declined. As the following table indicates, the majority of the increase in taxable value in FY 1990 comes from newly constructed residential and commercial property along with healthy increases in values for existing commercial properties.

TABLE II

ANALYSIS OF VALUE INCREASES

	FY 1989		FY 1990
Comm./Per. Prop.	$2,943,476,282	Existing Comm./Per. Prop.	$3,622,831,400
Residential	4,384,370,640	New Comm./Per. Prop.	281,064,000
Total	$7,327,846,922	Total Comm./Per. Prop.	3,903,895,400
		Existing Residential	$4,477,754,800
		New Residential	134,613,000
		Total Residential	$4,612,367,800
		Total Value	$8,516,263,200

The tax rates for FY 1990 will be $9.50 for residential and $18.17 for commercial, industrial, and personal property. While these rates reflect a $ .27 increase in the residential rate and a $ 1.89 drop in the commercial rate, because of the greater percentage of commercial growth and a slight shift in the percentage of the levy borne by the commercial section (see classification section), the residential tax bills will not increase as

sharply as had been previously anticipated. The tables below compare the average Citywide residential tax bill for FY 1990 with the FY 1989 bill.

TABLE III

AVERAGE CITY WIDE TAX BILLS

	FY 1989	FY 1990	$ CHANGE	% CHANGE
SINGLE FAMILY	$ 2,663	$ 2,920	$ 257	9.6%
TWO FAMILY	2,301	2,363	62	2.7%
THREE FAMILY	2,410	2,453	43	1.8%
CONDOMINIUMS	1,086	1,135	43	4.0%
4 to 8 UNITS	2,146	2,298	152	7.1%
9 PLUS UNITS	10,679	9,991	(687)	-6.4%

The following sections discuss the issues concerning the establishment of the FY 1990 tax rate:

ISSUES:

I AUTHORIZATION OF UNRESERVED FUND BALANCE

When the City Council adopted the FY 1990 budget in May of this year, the financing plan called for $1,500,000 in Unreserved Fund Balance to offset General Fund expenditures and $3,000,000 to offset Capital Fund expenditures. The financing plan is basically the same as has been used for the previous three fiscal years. Ideally, the vote to authorize Fund Balance would be taken at the time the budget is adopted. However, state law prohibits the authorization of Fund Balance between March 31 and June 30 of a given year. For the year ended June 30, 1989, the City had a Fund Balance of $14,800,000 (unaudited), a decrease of $500,000 from the previous year.

The City Council has carefully managed its Unreserved Fund Balance and avoided the dangerous trap of setting a falsely low tax rate by using too much Fund Balance one year, only to have the tax rate dramatically escalate the next. This authorization maintains the City's conservative approach to the management of our reserve, a wise approach considering the state budget problems and expected continued porblems in the area of state aid to municipalities.

II CLASSIFICATION

Since FY 1984, the City Council has the followed the state law which allows municipalities to classify property according to use for the purpose of allocating the property tax. Under a complicated state statute, a city or town may set a minimum residential tax rate which would reduce the

residential tax share to a number no less than 65% of what the total tax burden would be on all residential properties if all classes were equally taxed. That some statute also restricts the tax burden on commercial and industrial property to no more than 150% of what it would be if all classes were taxed at the same rate.

A year ago, legislation was passed that allowed the minimum residential factor to be reduced to 50% and the maximum commercial burden to be increased to 175%. However, the amendment had two stipulations: first, a minimum residential factor lower than 65% shall not result in the residential property class bearing a lower percentage of the total tax levy than the lowest percentage of the total property tax levy imposed on the residential class in the years since a city or town was first certified at full and fair cash value. In Cambridge's case, that percentage was 37.525% of the total levy. Secondly, a community could only use the revised minimum and maximum factors after first determining that the use of the 65% factor would result in the residential class bearing a higher percentage of the total tax burden than in the previous year.

In FY 1989, Cambridge fell under the guidelines of the amended statute and set a minimum residential factor of 62.7177% which resulted in a 37.525% residential share of the tax levy. For FY 1990, Cambridge must set a minimum residential factor of no lower than 65%. However, because commercial values grew at a rate greater than residential values, the higher mimimum residential factor of 65% (rather than 62.7177% in FY 1989) actually reduces the residential share of the tax levy to 35.2037% of the total, a drop in the total residential burden of just over 6% over the previous year.

III RESIDENTIAL EXEMPTION

For FY 1990, I am recommending that the City Council adopt the maximum residential exemption of 20%, as was done for FY 1989. This would result in a residential exemption of $56,157, saving each owner-occupant about $500 at the low end of the value range. (The value in tax savings of the residential exemption decreases as value increases. The "breakeven" point in FY 1990 would be $410,000 for the 20% exemption.)

IV STATUTORY EXEMPTIONS

STATUTORY EXEMPTIONS:

In 1987 the City Council accepted new state laws which liberalized certain statutory exemptions for the elderly, and at the same time doubled the value for all statutory exemptions. The acceptance of the state law regarding statutory exemptions does not have to be voted on annually by the City Council. However, the Council must vote annually to double the value of those exemptions. Homeowners who received exemptions last year could receive tax increases of between $175 and $500 in Fiscal Year 1990, if the Council chose not to double the value of the exemptions. The following is a

listing that contains the value (when doubled) and description of each exemption.

Clause 17D - Surviving spouse, aged person, minor. Whole estate must not exceed $40,000 less mortgage. The value of the domicile except for any portion which produces income and exceeds two units is excluded from the applicant's whole estate. Owner have occupied property for five years. $350.00

Clause 22 - 100% disabled veteran, purple heart, gold star parents. $350.00

Clause 22A - loss of or loss of use of foot, hand or eye, or veterans having service medals. $700.00

Clause 22B - loss of or loss of use of two limbs or both eyes. $1,400.00

Clause 22c - Same as Clause 22A except disability requires "specially adapted housing." $1,750.00

Clause 22D - unremarried surviving spouse of veterans killed in Quemoy or Matsu. $350.00

Clause 22E - 100% disabled veteran who has not been employed in previous year. $1,050.00

PARAPLEGICS - Veterans having paralysis, which occurred during wartime, of lower half of body on both sides. Also applies to surviving spouses of veteran. TOTAL EXEMPTION

Requirements for Clause 22 exemptions - must be domiciled in Massachusetts 6 months prior to entry or reside here 5 consecutive years after discharge. Must own and occupy property July 1, 1989.

Clause 37A - Legally blind. Must have letter from Division of Blind; own and occupy propert as of July 1, 1989. $1,000.00

Clause 41A-TAX DEFFERAL - Must be 65 years or older, domiciled in Massachusetts five yaers, domiciled in property July 1, 1989 and maximum earnings cannot exceed $20,000.00 in preceding year. TOTAL

Clause 41C - Elderly persons - Domiciled in property July 1, 1989, 70 years of age as of June 30, 1989, must have owned Massachusetts property five years, domiciled in Massachusetts 10 years, earnings, if single, less than $13,000.00; if married, less than $15,000.00 in preceding year (also applies to joint owners). Whole estate may not exceed two units, is excluded from the applicant's whole estate. $1,000.00

The qualification date for all applicants is July 1, 1989.

V VALUATION PROCESS

The following section discusses the valuation process used, under Massachusetts Department of Revenue guidelines, to determine FY 1990 residential and commercial values.

RESIDENTIAL VALUES:

For one, two, and three-family houses, 676 sales representing three years of activity (1986, 1987, and 1988) were analyzed. The result of the analysis was a new valuation model which has been applied to 100% of the properties in this class. Attachment 1 to this packet, "CITY OF CAMBRIDGE, FY90 VALUATION MODEL," is a detailed description of the model, showing the adjustments made to calculate the FY 1990 assessed value.

The net result of the reappraisal of one, two, and three-family houses is almost no change in the average assessed value. One family houses are up, on average 2%. Two and three-family houses down 2% and 1%, respectively. This does not mean, however, that everyone's assessment will be adjusted by this percentage from FY 1989 to FY 1990. As a result of shifts in market preferences, building permit activity, and data corrections, some taxpayers will see their values increasing or decreasing by more than these averages. Attachment II to this report summarizes changes by neighborhood and by class for one, two, and three-family houses and for condominium units. You will see that more taxpayers will see a decrease than will see an increase in their assessed values.

Condominium units were valued by analysis of comparable sales. In 1987 and 1988 there were over 900 sales representing 488 of the City's 658 condominium buildings. In the buildings where arms-length sales did occur, the total building value derived from the sales was divided among all the units in the building, sold and unsold, according to each unit's beneficial interest.

One hundred seventy buildings experienced no sales in 1987 or 1988. For each building with no sales, three to four buildings with sales were identified which most closely approximated the market appeal of the building with no sales. The average selling price per square foot of the comparable buildings was calculated, then a total value was derived for the building with no sales. This total value was divided among the units in the building according to each unit's beneficial interest. Condominium units saw an overall value increase of 4% although more values were reduced than were increased (see Attachment II).

Rent controlled buildings were valued utilizing an income approach with capitalization rates derived from the market. There were 36 arms-length 1987 and 1988 sales of class 111 buildings (4 to 8 units), and 8 sales of class 112 (more than 8 units). Of the latter, no very large apartment buildings sold; however, three fairly typical buildings of 16, 17, and 22

units did sell. No clear time trends were evident in the sales base.

Capitalization rates were extracted from this market data and applied to the incomes allowed according to legal Rent Board data. The legal rents are so low in many buildings that the market has also been found to establish a "floor" value, irrespective of income. The 1987-88 sales indicated a minimum value relating roughly to the number of units in smaller buildings. In larger buildings, a minimum value of $25,000 per unit was observed. The result of this year's revaluation of rent controlled buildings is an increase of approximately 4% in buildings with 4 to 8 units, and a decrease of approximately 9%, on average, for buildings of 9 and more units.

COMMERCIAL VALUES:

The Department of Revenue requires two approaches to value on improved commercial properties, with the final opinion of value resting on that approach more indicative of what a prudent investor/buyer would rely upon for a return of and on investment. In order to comply with the state requirements, the following data collection and analysis efforts were undertaken:

Income/Expense questionaires were mailed to 1500 commercial property owners. Approximately 60% of these were completed and returned. This information was used to produce updated income and expense tables, by use and by assessment district, reflecting the commercial marketplace as of January 1, 1989.

Capitalization rates were extracted from sales and by utilizing the mortgage-equity method of capitalization with loan-to-value ratios, interest rates and equity yield rates as of January 1, 1989.

The sales analysis for FY 1990 utilized the following:

59	Raw land sales
34	Residential/commercial mixed use sales
17	Retail sales
30	Office and retail/office building sales
36	Office and retail condominium sales
22	Industrial building sales
4	Research and development sales
plus	Approximately 100 sales of miscellaneous commercial/industrial properties from outside but neighboring locations such as Belmont, Arlington, Watertown, and Waltham

Commercial land rates were derived from the 59 raw land sales plus land residuals extracted from 36 improved commercial property sales, utilizing zoning data to apply the appraisal principle of highest and best use.

Market level income and expense figures were calculated for each income producing property in the City, and then the appropriate capitalization rate was applied to calculate value by the income approach.

In most instances of commercial properties, the final assessed value was arrived at by the income approach. The cost approach was relied upon for special purpose properties where limited income data is available. There was an increase of 23% in the average value of existing commercial properties.

CONCLUSION:

The establishment of the property tax rate is the final step in the City's annual fiscal process. The budget, which the FY 1990 tax levy supports, was made difficult by the financial problems affecting the state. While the outlook for the City's immediate fiscal future is somewhat cloudy, the City Council should take pride in the fact that the residents of the City continue to benefit from the fiscal policies of the City Council and the City's strong local economy. As I have pointed out in the past, classification, residential exemption, commercial and residential development, and conservative fiscal policies have combined to give Cambridge one of the lowest residential tax burdens in Greater Boston. For FY 1990, residential property owners as a class will pay a lower percentage of the total tax levy than they have at any point in the City's history. The residential properties' 35.2% share of the tax levy means that two out of every three local tax dollars that the city spends for its wide array of services are paid for by the commercial property owners.

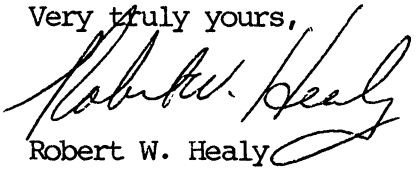
Since 1982 Cambridge has seen unprecedented growth of the local economy. In turn the City government embarked upon the greatest capital improvement program in the City's history. The total appropriation of funds for capital projects since 1982 is $164,334,841. Open space including tot lots, active and passive parks, and the new Danehy Park have received $27,961,000 of the total; streets and sidewalks $21,000,000; Cambridge Hospital $18,511,000; schools over $16,000. Additionally, millions were expended on public safety, public buildings, and public utilities.

While the City was addressing its infrastructure needs, it was also able to respond to the day to day needs of the citizens. Cambridge streets and parks are clean due to a strong maintenance program; public safety staffs are fully budgeted; City supported child care has been expanded; Cambridge has one of the strongest local programs for the homeless; the City spends more per pupil than any city in the Commonwealth; and since 1982 over $43,000,000 local tax dollars have been spent on providing health care for the poor and needy. All of this has been accomplished while the residential percentage of the total levy was reduced from approximately 75% in FY 1981 to 35.2% in FY 1990.

Now as we enter a new decade, the City finds itself in a transitional period. The slow down of the local economy means that the City can no longer depend upon continued increases in state aid and increased tax levy limits due to new construction, two factors that contributed greatly to the financial strength of the 1980's. If the trend of the past twelve months

continues, and there is no indication that it won't, the City and our citizens will be faced with difficult choices in the coming years. By working cooperatively with our citizens, our employees, and the various levels of government, it is my hope and expectation that Cambridge will be successful in meeting the challenges that lie ahead.

Very truly yours,



Robert W. Healy

ATTACHMENT I

CITY OF CAMBRIDGE

FY90 VALUATION MODEL
CLASSES 101, 104, 105

INTRODUCTION

The form of the valuation model for FY90 is

$$TV = G_Q * (L_A + B_A + Constant) + D_A$$

where

TV = Total Value
G_Q = Qualitative (percentage) Global Adjustments
L_A = Additive Land Value
B_A = Additive Building Value
D_A = Dollar amount additive adjustments

The individual land values for this model are extracted by allocating a portion of the constant to land, adding this figure to the Additive Land Value, and adjusting the sum by applying the Qualitative Global Adjustments which are applicable to land value. Specifically, in Cambridge

$$LV = N_Q * T_Q * SVF_Q * L_Q * (L_A + Land\ Constant)$$

where

LV = Land Value
N_Q = Neighborhood percentage adjustment
T_Q = Percentage adjustment for light traffic
SVF_Q = Street Value Factor percentage adjustment
L_Q = Percentage adjustment for any lot detriments

LAND VALUATION

There were virtually no vacant house lot sales in Cambridge during the period 1986 through 1988. The residential land sales that did occur were for townhouse development, with a sale price based on the number of townhouses allowed by zoning on the site. Therefore, land values for FY90 were extracted from the model using a modified cost residuals analysis approach.

The per square foot coefficients for land value were calculated using multiple regression analysis. The percentage adjustments to land value were also calculated by MRA. In addition, the model includes a dollar amount constant, which must be divided up between land and building in the course of breaking off land value from total value. The methodology used to accomplish this

took a residuals analysis through the steps outlined below. Refer to the spreadsheet on the following page, "Cambridge: Land Residuals Analysis", to follow these steps

1. For each of the City's 20 Assessment Neighborhoods, compute the following mean values from the sales data base:
   - sale price (Column 2 on spreadsheet)
   - lot size (Column 3)
   - RCNLD (Column 10).

2. Using these mean values, apply the Final Valuation Model coefficients to calculate the mean land value for each neighborhood, with a constant equal to 0 (Column 8).

3. Identify a standard land/total value ratio for each of the 20 neighborhoods (Column 12). Because of the generally high price of all Cambridge real estate in relation to the quality and size of the houses, a citywide ratio of 40% was considered a reasonable starting point. RCNLD as a percentage of sale price was calculated (Column 11). The average RCNLD/Sale Price for the City is 35%. In neighborhoods where the RCNLD/Sale Price was in the 30% to 40% range, the 40% land/total value ratio was established as the standard. In neighborhoods where the RCNLD/Sale Price was less than 30%, a higher land/total value standard was set. In neighborhood with RCNLD/Sale Price greater than 40%, a lower land/total value standard was established.

4. Calculate the dollar amount of the constant required to be allocated to land in order for the standard land/total value ratio for each neighborhood to be attained (Column 13).

5. Calculate the percentage of constant required to be allocated to land for each neighborhood in order to maintain the land/total standard for that neighborhood (Column 15).

The percentage calculated in step 5 is that used to allocate the constant between land and building for each neighborhood.

THE FINAL MODEL

An additively calculated base value is adjusted by a series of factors which make percentage changes to the base value for qualitative influences. The following three figures constitute the "additive base" of the Cambridge FY90 Valuation Model:

Constant: $117,772.90
Land Value per square foot: $20.17
Building Value per square foot: $44.02

Therefore, for an house in Cambridge that is "average" in all respects, having the citywide average lot size of 3889 square feet and the citywide average living area of 2,302 square feet

Cambridge: Land Residuals Analysis

(1) DISTRICT	(2) AVG.SALE	(3) AVG. SQ.FT.	(4) NBHD FACTOR	(5) LAND ADJ FACTOR	(6) COMPOSITE QUAL FACTOR	(7) NBHD CONSTANT	(8) LAND VALUE CONSTANT=0	(9) LAND VALUE % SALE	(10) MEAN RCNLD	(11) COST BLDG % SALE	(12) TARGET LAND RATIO	(13) LAND CONSTANT	(14) NEW LAND VALUE	(15) % CONSTAN TO LAND
1	$185,893	2094	0.844	97%	0.818	$84,448	$34,574	19%	81228	44%	35%	$30,489	65062	32%
2	$194,117	2942	0.803	96%	0.769	$80,325	$45,624	24%	87871	45%	35%	$22,317	67941	25%
3	$316,300	3322	1.083	95%	1.030	$108,293	$69,051	22%	112345	36%	40%	$57,469	126520	47%
4	$340,255	3218	1.124	95%	1.072	$112,462	$69,571	20%	111484	33%	40%	$66,531	136102	53%
5	$676,950	8208	1.523	88%	1.347	$152,323	$222,967	33%	188603	28%	45%	$81,660	304628	51%
6	$446,509	4798	1.629	93%	1.516	$162,883	$146,702	33%	121086	27%	45%	$54,227	200929	30%
7	$220,279	3979	0.948	94%	0.893	$94,789	$71,687	33%	88947	40%	40%	$16,424	88111	16%
8	$324,423	4448	1.062	94%	0.994	$106,212	$89,149	27%	111293	34%	40%	$40,620	129769	35%
9	$456,337	6375	1.491	91%	1.356	$149,161	$174,311	38%	132616	29%	40%	$8,224	182535	5%
10	$917,837	10883	1.544	85%	1.311	$154,433	$287,904	31%	265361	29%	40%	$79,231	367135	51%
11	$496,086	4164	2.203	94%	2.070	$220,311	$173,880	35%	104339	21%	50%	$74,163	248043	30%
12	$214,244	2706	0.948	96%	0.910	$94,789	$49,699	23%	83183	39%	40%	$35,999	85698	34%
13	$245,484	2984	1.010	96%	0.966	$101,013	$58,142	24%	99775	41%	40%	$40,051	98194	35%
14	$499,998	2109	1.894	97%	1.835	$189,390	$78,063	16%	89511	18%	50%	$171,936	249999	80%
15	$402,501	10814	1.124	85%	0.956	$112,462	$208,550	52%	162993	40%	52%	$751	209301	1%
16	$235,002	2651	0.875	96%	0.841	$87,546	$44,998	19%	148508	63%	30%	$25,502	70500	26%
17	$302,717	1703	1.177	97%	1.147	$117,680	$39,422	13%	129667	43%	45%	$96,801	136223	72%
18	$234,258	3071	0.968	95%	0.925	$96,862	$57,314	24%	95738	41%	45%	$48,102	105416	44%
19	$379,500	4569	1.187	93%	1.109	$118,725	$102,190	27%	110627	29%	50%	$87,560	189750	67%
20	$388,333	3712	1.586	95%	1.501	$158,656	$112,379	29%	97800	25%	50%	$81,788	194167	46%
CITYWIDE	$308,716								107375					
								Average:		35%				

CAMBRIDGE VALUE STARTS HERE:

(3,889 sq.ft. lot*20.17) + (2,302 SFLA*44.02) + 117,772.90 =

$297,565

THIS BASE VALUE IS MULTIPLIED BY THE FOLLOWING FACTORS:

Property Class: .974 for two-family houses

Rent Control Status .9807

General Building Size Adjustment:

(SFLA/2302) * -.034

Example: 3000 square foot house
(3000/2302) * -.034 = -.0443
Adjustment Factor = .957

Size adjustment for large two-family houses:

(SFLA over 3500)/1000 * -.026

Example: 4000 square foot two-family house
(500/1000) * -.026 = -.013 adjustment factor
Adjustment factor = .987

Size adjustment for large 3-Deckers:

(SFLA over 4500)/1000 * -.05

Example: 5000 square foot 3-Decker
(500/1000) * -.05 = -.025
Adjustment factor = .975

Lot size adjustment:

(Lot size/3887) * -.056

Example: 5000 Square foot lot
(5000/3889) * -.056 = -.072
Adjustment factor = .931

Percentage Adjustment Tables (attached)

Dollar Amount Add-Ons: Table attached

Cambridge Valuation Model Neighborhood Adjustment Tables

ASSESSMENT DISTRICT	NBHD Factor	ONE-FAM Factor	EXC STREET	GOOD STREET	FAIR STREET	POOR STREET	TOWNHOUSE Factor	TWO-FAM Factor
1	0.845	0.960	1.038	1.038	0.980	0.874	0.995	1.000
2	0.803	1.000	1.086	1.086	0.961	0.826	0.882	1.000
3	1.083	1.101	1.086	1.086	0.961	0.865	0.908	1.000
4	1.222	1.040	1.029	1.029	0.961	0.845	0.995	1.000
5	1.524	1.000	1.038	1.038	0.980	0.845	0.882	1.000
6	1.426	1.000	1.090	1.038	0.902	0.855	0.882	1.000
7	0.895	0.939	1.090	1.038	0.932	0.855	0.952	1.000
8	1.062	1.121	1.010	1.010	0.902	0.797	0.882	1.000
9	1.492	1.030	1.038	1.038	0.863	0.689	0.917	1.000
10	1.769	1.000	1.099	1.067	0.980	0.845	0.882	1.000
11	1.798	0.949	1.038	1.038	0.706	0.709	0.882	1.000
12	0.948	0.960	1.131	1.057	0.951	0.777	0.917	1.000
13	1.010	1.051	1.000	1.000	0.843	0.787	0.847	1.000
14	1.894	1.000	1.038	1.038	0.980	0.845	0.882	1.000
15	1.125	1.000	1.038	1.038	0.980	0.845	0.882	1.000
16	0.876	1.000	1.038	1.038	0.980	0.845	0.882	1.000
17	1.000	1.000	1.038	1.038	0.980	0.845	1.152	1.000
18	0.969	1.035	1.000	1.000	0.971	0.845	0.856	0.912
19	1.291	1.081	1.038	1.038	0.980	0.845	0.882	1.000
20	1.587	1.000	1.038	1.038	0.980	1.000	0.882	1.000

Cambridge Valuation Model Qualitative Adjustment Tables

BUILDING TYPE	
Type	Value
Two decker	0.979
Two family	1.000
Three decke	1.000
Four decker	1.000
Detached	1.000
Duplex	0.957
Other	0.979
Row end old	1.011
Row old	1.000
Semi-Det	0.947
Townhouse	0.894

HOUSE STYLE	
Style	Value
Antique	0.979
Colonial	1.011
Contempora	1.064
Convention	1.000
European	1.000
Other	1.000
Revival	1.011
Suburban	0.936
Victorian	1.011

QUALITY GRADE	
Grade	Value
AA	1.341
A	1.292
AB	1.244
BC	1.176
BC	1.088
CP	1.029
C	1.000
CM	0.932
D	0.883
E	0.814

OVERALL CONDITION	
Condition	Value
Poor	0.912
Fair	0.951
Average	1.000
Good	1.069
Excellent	1.078

LOT DETRIMENT	
Detriment	Value
Easement	0.980
Other	0.909
Rear lot	0.990
Right of w	0.990
Commercial	0.950
Physical	0.990

WALL MATER TABLE	
Wall type	Value
Asb Shin.	0.963
Alum.Sid.	0.963
Asph Shi.	0.944
Brick	1.037
Br.Veneer	1.019
Conc.Blk.	0.953
Clapboard	1.000
Stucco	1.000
Stone	1.037
St.Veneer	1.019
Wood Shin	1.000
Vin.Sid.	0.963

Cambridge Valuation Model Dollar Amount Additive Values

ASSESSMENT DISTRICT	OP PARK VALUE	COV PARK VALUE	ADDITIVE VALUE DISTRICT TABLE
1	1000	3000	0.85
2	1000	3000	0.81
3	3500	5500	1.08
4	5400	7400	1.12
5	0	2000	1.5
6	1000	3000	1.6
7	2300	4300	0.95
8	0	2000	1.06
9	900	2900	1.47
10	0	2000	1.52
11	6000	8000	2.14
12	3000	5000	0.95
13	3000	5000	1.01
14	2100	4100	1.85
15	800	2800	1.12
16	3500	5500	0.88
17	2300	4300	1.17
18	5000	7000	0.97
19	800	2800	1.18
20	2300	4300	1.96

FIREPLACES: $9,096.43 per fireplace
max: 2 fireplaces

DECKS: $11.64 per square foot

ENCLOSED PORCH: $13.00 per square foot
COV OPEN PORCH: $12.00 per square foot

FINISHED BASEMENT: $7.00 per square foot
adjusted for condition:

Poor	0.8
Fair	0.9
Average	1
Good	1.1
Excell	1.2

*
GRADE TABLE
*
DISTRICT TABLE

GRADE TABLE:	
AA	1.35
A	1.3
AB	1.25
B	1.18
BC	1.09
CP	1.03
C	1
CM	0.93
D	0.88
E	0.81

DETACHED STRUCTURES CONDITION TABLE

Poor	0.8
Fair	0.9
Average	1
Good	1.05
Excellent	1.1

BATH FIXTURES: $1,418.80 per fixture
*
GRADE TABLE

UNFINISHED ATTIC: $32.80 per square foot
*
GRADE TABLE
*
DISTRICT TABLE

PATIOS: $10.00 per square foot
*
DETACHED STRUCTURES CONDITION TABLE

SWIMMING POOLS: $35.00 per square foot
*
DETACHED STRUCTURES CONDITION TABLE

SHEDS: $13.00 per square foot
*
DETACHED STRUCTURES CONDITION TABLE

Value Changes from FY89 to FY90

DISTRICT	One-family			Two-family			Three-Family			Condos		
	count	%	# down	count	%	# down	count	%	# down	count	%	# down
1	380	0.95	283	315	0.95	228	279	0.98	182	105	0.99	80
2	195	0.97	120	218	0.96	138	176	0.93	140	82	1.23	46
3	190	1.14	33	256	1.02	103	177	1.00	97	1349	1.04	760
4	175	1.04	47	138	1.04	61	92	1.01	46	557	1.00	400
5	46	1.04	14	30	1.03	10	3	1.09	0	3	1.30	0
6	316	1.13	24	152	1.13	22	85	1.18	8	1240	1.07	541
7	634	0.97	403	762	0.95	558	261	0.94	211	388	0.96	271
8	121	0.99	74	339	0.99	197	91	0.91	82	77	0.99	47
9	203	1.16	24	14	0.98	8	1	1.20	0	36	0.97	34
10	296	1.08	69	63	1.13	9	3	1.11	0	30	1.12	11
11	145	0.95	101	49	0.96	25	20	1.10	5	542	1.10	154
12	190	0.89	170	212	0.86	192	176	0.99	88	157	0.98	99
13	210	1.13	37	274	1.05	87	219	1.09	58	158	1.02	75
14	2	1.18	0	1	1.21	0						
15	35	1.15	3									
16				4	0.81	4	6	0.85	6			
17	30	0.90	20	20	1.10	1	6	1.27	0			
18	122	0.94	81	138	0.94	109	74	1.03	22	124	0.99	74
19	47	1.10	6	183	1.11	1	20	1.11	1	52	1.05	30
20	10	0.65	10	5	0.69	5	1	0.71	1	9	0.94	6
21	69	0.91	59	50	0.94	36	19	0.89	16	20	0.96	15
TOTAL	3416		1578	3223		1794	1709		963	4929		2643
AVERAGE		1.02	46%		0.98	56%		0.99	56%		1.04	54%

ATTACHMENT II

Agenda Item Number 1 F-441

Establishment of Fiscal Year 1990 Tax Rate.

In City Council,

Oct. 2, 1989

Hearing held
5 orders adopted

1A - 8-0-1
1B - 8-0-1
1C - 8-0-1
1D - 7-0-1-1
1E - 8-0-1