

SYSTEM TECHNOLOGY

ASSOCIATES, INC.

P. O. BOX 713
9 MAIN STREET
CONCORD, MASS. 01742

July 1, 1980

Mr. Rudolph Russo
Chairman
Board of Assessors
Cambridge, MA 02139

Dear Mr. Russo:

In accordance with our recent conversation and our letter proposal of February 20, 1980, I am submitting this letter to revise STA's present contract to cover continuance of services for the Cambridge Valuation Project in the period July 1, 1980 through September 1, 1981.

1. During the period of this contract (July 1, 1980 through September 1, 1981), STA will provide the following services:

a) Data Collection

Public Relations Plan \$22,350

STA will provide public
relation services in
accordance with Enclosure A

Residential data review and
inspection (5400 parcels) 8,763

STA will supervise Cambridge
personnel in inspecting and
reviewing residential properties

Commercial/Industrial data collection 19,171

STA will supervise Cambridge
personnel in the inspection and
collection of data for commercial
and industrial properties

\$50,284

b) Valuations and Appraisals

Land valuation 8,814

STA will produce land valuation
formulas based upon sales and
sales residuals and obtain values
by computer assisted techniques

Complete data entry and file
editing

23,375

Commercial/Industrial appraisals 111,000

STA will appraise commercial/
industrial parcels by income
and replacement cost techniques

Residential valuations 34,241

STA will compute values of
residential properties by
MRA, comparable sales and
replacement cost

\$177,430

c) Confirmation of Values

Value review \$23,563

Impact notices 7,000

Residential hearings 18,000

Commercial hearings 12,000

\$ 60,563

\$288,277

2. All of the above work shall be performed in accordance with the schedule shown on Enclosure B
3. Any modification in the provisions of this contract must be approved in writing by the Board of Assessors and by STA.
4. STA will send a report of services provided together with an invoice for the cost of such services monthly to the Board of Assessors. The amount of the invoices will be computed from the amount of time spent by STA personnel and the amount of computer time expended at the above stated rates.
5. The costs of form will be filled separately at the time of delivery.

6. This agreement is construed by the undersigned to be a contract under the laws of the Commonwealth of Massachusetts and will supercede all previous agreements entered between the undrsigned.

Signed this 18th day of August 1980.

BOARD OF ASSESSORS
CITY OF CAMBRIDGE

SYSTEM TECHNOLOGY ASSOCIATES, INC.

Endeign R Russo

Arthur W. Dickson
Arthur W. Dickson
President

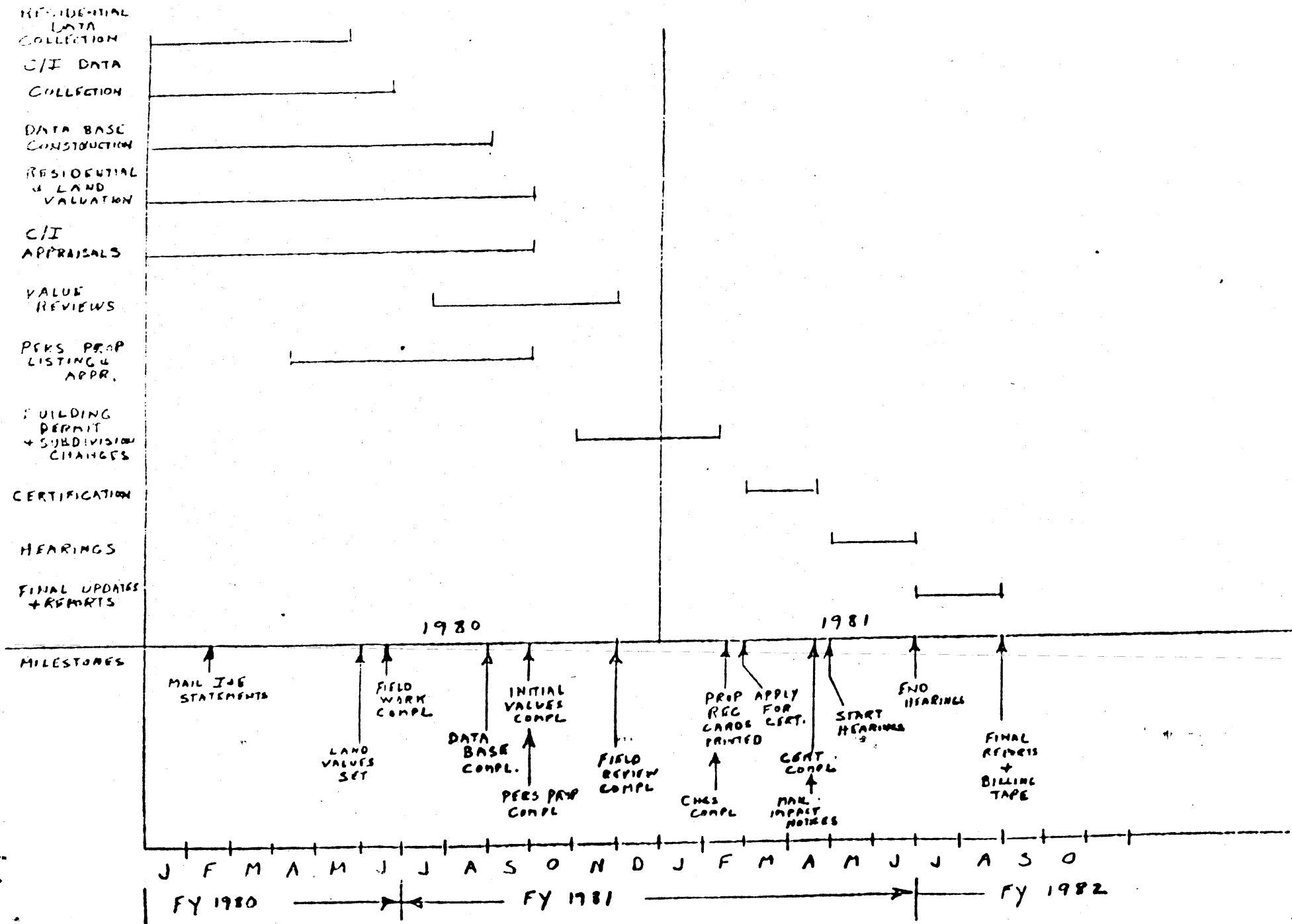
1943

Kevin T. McFirth

City Solicitor


James L. Sullivan
City Manager

FIG 6.1 CAMBRIDGE REVALUATION PROJECT SCHEDULE



Amendment
To Agreement Between
City of Cambridge
And

System Technology Associates, Inc.

We hereby amend the contract between the City of Cambridge and System Technology Associates, Inc. (STA) covering the period from July 1, 1980 through September 1, 1981.

During the period of this contract, STA will provide the following services:

1. Transfer of all 1980 sales, building permits, mailing address changes, sub-divisions, master deeds and key punch data to computer.

5,000 changes X .20 = \$1,000.

2. Take photos and check all residential properties whose new property valuation is appealed.

Estimate 2,000 properties X \$1.50 = \$3,000.

3. Provide additional property data reports on R-1, R-2, R-3, R-4, R-C and L categories.

\$2,000.

\$6,000.

Signed this eighth day of June 1981.

BOARD OF ASSESSORS
CITY OF CAMBRIDGE

SYSTEM TECHNOLOGY ASSOCIATES, INC.

Kevin T. McDermott

Danilo V. Missio
Danilo V. Missio
Vice President

Richard A. Turner

Rodolph R. Russo

James C. B. Hyl
City Solicitor

James L. Sullivan
James L. Sullivan
City Manager

SYSTEM TECHNOLOGY
ASSOCIATES, INC.

P. O. BOX 713
9 MAIN STREET
CONCORD- MASS. 01742

November 21, 1979

Mr. Rudolph Russo
Board of Assessors
City of Cambridge
Cambridge, MA

Dear Mr. Russo:

We have prepared the enclosed addendum to the Cambridge Revaluation plan which we submitted to you on August 27, 1979 and have included a cost estimate for the extra services needed to complete the revised plan.

The result of the augmented plan will be completion of residential values in time for FY 1981 billing, a public relations campaign and completion of commercial/industrial revaluation in time for FY 1982 billing. The augmented plan would also include a public relations program and residential and commercial/industrial hearings.

To complete this plan STA will provide added personnel above our present contract as follows:

1. Residential Inspectors and clerks to complete listings
in 6 months (May 1, 1980).
(5 people for 6 months)
2. Commercial and Industrial listers to complete listings
in 10 months (September 1, 1980).
(4 people for 10 months)
3. Appraisers for Commercial/Industrial properties.
(To complete appraisals by October 1, 1980).
4. Personnel to conduct hearings for these services.
(5 people for 2 months).

The total estimate for these services in addition to the present contract for \$100,090 as given in Enclosure 1 is \$321,790.

This program will result in residential revaluation by FY 1981 and complete revaluation by FY 1982.

Very truly yours,

Arthur W. Dickson

Arthur W. Dickson

AWD:ji

Enc.

Cost EstimateCambridge Revaluation Plan1) Completion of Residential Valuation for FY 1981

- | | | |
|--|--|----------|
| a) Field work and completion of reviews for 700 parcels, 5 listers and clerks for 6 months | | \$59,850 |
| b) Complete construction of data base (included in present contract) | | |
| c) Valuation and production of value reports (contained in present contract) | | |

2) Public Relations Program

- | | | |
|---|--------------|--------|
| a) Production of public relations plan | NC | |
| b) Preparation and printing of Revaluation Brochure | 2,100 | |
| c) Preparation of newspaper releases | 750 | |
| d) Preparation of mailings to home owners | 11,000 | |
| e) Data confirmation notices (11,000) | 5,500 | |
| f) Presentation to public groups, 10 meetings | <u>2,000</u> | 21,350 |

3) Completion of Commercial and Industrial Revaluation by FY 1982

- | | | |
|--|---------------|----------------|
| a) Commercial/Industrial Inspections complete listings for 3000 parcels, 4 men for 10 months | | 99,590 |
| b) Appraisals of commercial/industrial parcels | | |
| Assume 300 industrial | 30,000 | |
| 2,700 commercial | <u>81,000</u> | <u>111,000</u> |
| Total Commercial/Industrial | | \$210,590 |

4) Hearings

- | | | |
|-----------------------|---------------|---------------|
| Residential | 18,000 | |
| Commercial/Industrial | <u>12,000</u> | <u>30,000</u> |

GRAND TOTAL

\$321,790

ADDENDUM WORK STATEMENT

Cambridge Revaluation Project

The following tasks are added scope to the Cambridge Revaluation Project Letter contract dated July 30, 1979.

A1. Completion of Residential Valuation for FY 1981

STA will provide field listers and clerks (4 listers and 1 clerk) to complete residential inspections and listing. An inventory check will be made using the Harvard Trust billing tape and maps and a review of all incomplete listing sheets will be made to determine which need further field work.

Field inspections will be made to obtain missing data and the listing sheets data will be edited and entered into the computer master file.

A2. Public Relations Program

STA will submit a public relations plan to the Board of Assessors. The object of this plan will be to provide Cambridge property owners information about the revaluation in a timely manner. The plan will include:

- Overall schedule for the distribution of public information.
- Preparation of a revaluation brochure explaining procedures, the effects of classifications, and the probable impact of the revaluation.
- Schedule and preparation of newspaper releases and articles.
- Preparation of mailings to residential, commercial and industrial property owners.
- Requests for information from property owners such as I&E statements and sales verification data.
- Data confirmation notices (printouts of data describing each property).
- Impact notices (prior to hearings) showing tax impact of new value to each property owner.

After approval of the plan by Cambridge, STA will conduct the programs under supervision of the Board of Assessors and will prepare literature, releases and mailings as indicated by the plan.

A3. Completion of Commercial/Industrial Revaluation for FY 1982

STA will provide commercial/industrial listers (4 people) to complete commercial/industrial listings for approximately 3,000 parcels.

STA will appraise all commercial/industrial properties using replacement, income and market approaches where applicable.

The listing data and appraised values will be entered into a computer file and listings prepared for review by the Board of Assessors.

A4. Hearings

STA will organize separate hearings for residential and commercial/industrial property owners who after receipt of impact notices have questions or complaints about their new values. These hearings will be scheduled by means of telephone appointments. Questions will be taken under advisement by the hearing staff. The results of subsequent reviews of value will be mailed to each applicant and included in an abstract of hearings that will be submitted to the Board of Assessors.

Dept. for signature & requested that she give
SYSTEM TECHNOLOGY

ASSOCIATES, INC.

July 30, 1979

P. O. BOX 713
9 MAIN STREET
CONCORD- MASS. 01742

Mr. Charles Laverty
Chairman, Board of Assessors
Cambridge, Massachusetts

Dear Mr. Laverty:

In accordance with our recent conversation and our letter proposal of December 21, 1978, I am submitting this letter to revise STA's present contract to cover continuance of middle management services for the Cambridge Valuation Project in the period July 1, 1979 through June 30, 1980.

During the past year we have met our goals of getting one-third of the City into the computer file and of setting up a computer assisted appraisal system. The objectives for this next contract period, as defined above, are to complete the file for residential properties, to finalize the residential appraisal system and to continue data collection and appraisal of commercial-industrial properties in preparation for completion of the project by January 1, 1981.

1. During the period of this contract (July 1, 1979 through June 30, 1980), STA will provide the following services:

- a. Overall Project Management

STA will continue to provide a senior project manager to monitor and coordinate the Cambridge Valuation Project. It is estimated that the manager will spend 24 hours per month at \$42/hour.

Estimate:

\$12,000

- b. Residential Data Collection

STA will continue to administer control procedures and to provide field assistance for continuance of residential inspections and the recording of the resulting data on computer input forms by Cambridge CETA personnel.

Estimate: Supervisory data clerk - \$1,460/mo.,
Total - 3 months

4,380

c. Commercial/Industrial Data Collection and Appraisals

STA will continue to provide instruction of CETA personnel for inspection and listing of commercial and industrial properties in the City as prescribed by the Board.

As a part of this task, STA will provide personnel as required to assist the CETA listers in the field and will appraise commercial/industrial properties designated by the Board.

Estimate: Commercial Supervisor - \$300/day		
1 day/month	\$ 3,600	
Industrial Listers - \$160/day		
8 days/month	<u>15,360</u>	\$ 18,960

d. Data Base Construction

STA will edit and enter data obtained from field inspections into the Cambridge data base and produce printouts of this data base as requested by the Board. There are already 4,000 residential parcels in the data base; we estimate that approximately 7,000 more residential parcels must be entered to complete the residential data base.

Estimate: \$3.00 per parcel for 7,000 parcels	21,000
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e. Property Record Cards

Printing of property record cards for filing in the Assessors Office will cost .25¢ per card exclusive of the forms cost which has already been paid. STA will print cards for all residential parcels during the contract period.

Estimate: .25¢/parcel for 11,000 parcels	2,750
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f. Value Analysis

STA will continue development of multiple regression models for predicting residential values throughout the City. During the last contract period we ran several models for parts of the City. In the period of this contract we will combine these models to provide values for all residential properties.

Estimate:

Modeling Work - Mathematician - \$300/day
Estimate 60 days \$18,000

Computer - \$1200/hour
Estimate 10 hours 12,000

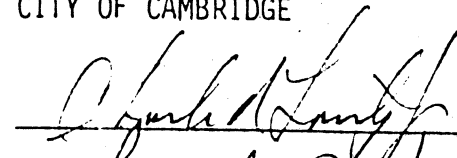
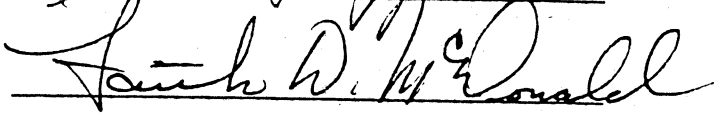
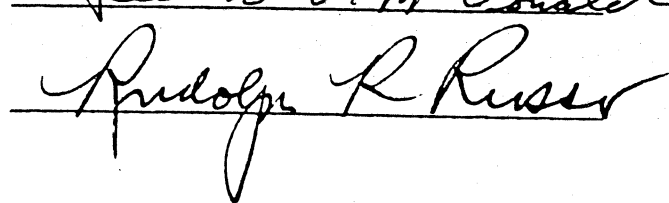
Production of Value Reports for
11,000 parcels 11,000 \$ 41,000

Total Estimate \$100,090

2. STA will send a report of services provided together with an invoice for the cost of such services monthly to the Board of Assessors. The amount of the invoices will be computed from the amount of time spent by STA personnel and the amount of computer time expended at the above stated rates.
3. The costs of forms will be billed separately at the time of delivery.
4. This agreement is construed by the undersigned to be a contract under the laws of the Commonwealth of Massachusetts and will supercede all previous agreements entered between the undersigned.

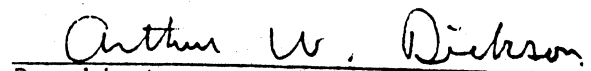
Signed this 31st day of July 1979.

BOARD OF ASSESSORS
CITY OF CAMBRIDGE

City Solicitor

SYSTEM TECHNOLOGY ASSOCIATES, INC.


President

James L. Sullivan
City Manager

Form 27
increase

Reagan

In the original Systems Technology Associates, Inc. contract dated July 30, 1979, all of the services computed on an hourly basis were estimated figures. Their final bill is, therefore, \$8964.00 over the original total estimate of \$100,090.00.

SYSTEM TECHNOLOGY
ASSOCIATES INC.

July 18, 1978

P. O. BOX 713
9 MAIN STREET
CONCORD, MASS. 01742

Mr. Rudolph Russo
Chairman, Board of Assessors
Cambridge, Massachusetts

Dear Mr. Russo:

In accordance with my recent conversations with you, Mr. Laverty and Mrs. MacDonald, I am submitting this letter to revise STA's present contract to cover the continuance of middle management services for the Cambridge Valuation Project in the period July 1, 1978 to July 1, 1979.

Our major goals in this period will be to assemble a property record data base for approximately one-third of the city, and to complete the set-up of a computer-assisted appraisal system for residential and commercial/industrial properties.

1. During this period STA will provide the following services:

a) Overall Project Management

STA will continue to provide a senior project manager to monitor and coordinate the Cambridge Valuation Project. It is estimated that the manager will spend 12 hours per month at \$42 per hour.

Estimate	\$ 6,000
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b) Mail Questionnaires

STA will process the data received from mail questionnaires and enter this data into the Cambridge property record data base.

Estimate: 50¢ per questionnaire x 4000 questionnaires	2,000
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c) Residential Data Collection

STA will administer control procedures and provide field assistance for continuance of residential inspection and the recording of the resulting data on computer input forms by Cambridge CETA personnel.

Estimate: Supervisory data clerk - 1360/month 1 day/week - total 2 1/2 months	3,400
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d) Commercial/Industrial Data Collection and Appraisals

STA will set up inspection procedures and provide instruction of CETA personnel for inspection and listing of commercial properties in sections of the City of Cambridge as prescribed by the Board.

As a part of this task STA will provide personnel as required to assist the CETA listers in the field and will appraise commercial/industrial properties designated by the Board.

Estimate: Commercial supervisor - \$200/day 4 days/month	\$ 7,200
Commercial listers - \$120/day 10 days/month	14,400

e) Data Base Construction

STA will edit and enter data obtained from the field inspections in the Cambridge property record data base and produce printouts of property characteristics from this data base as requested by the Board.

Estimate: \$2.00/parcel for 4000 parcels	8,000
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f) Property Record Cards

STA will produce computer printed property record cards showing the data recorded for inspected properties in parts of the City as specified by the Board.

The cost of producing these cards exclusive of the forms cost will be 25¢ per card. The total cost for Wards 7, 8 and 9 which contain approximately 4000 parcels will be	1,000
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g) Value Analysis

STA will continue to apply multiple regression models for predicting market values in Wards 7, 8 and 9 and other sections of the City of Cambridge as specified by the Board of Assessors.

The estimate for this service is:

Modeling Work

Mathematician - \$300/day	
Estimate 20 days	\$ 6,000
Computer - \$1200/hour	
Estimate - 2 hours	2,400
Production of Value Reports for 4000 parcels	<u>4,000</u>
Total Estimate	\$54,400

2. STA will send a report of services provided together with an invoice for the cost of such services monthly to the Board of Assessors. The amount of the invoices will be computed from the amount of time spent by STA personnel and the amount of computer time expended at the above stated rates.

3. The costs of forms will be billed separately at the time of delivery.

4. This agreement is construed by the undersigned to be a contract under the laws of the Commonwealth of Massachusetts and will supersede all previous agreements entered between the undersigned.

Signed this day of July 1978.

Board of Assessors
City of Cambridge

System Technology Associates Inc.

Rudolph R. Russo
Laurel W. McDonald
Charles A. Lutz
James B. Hegley
City Solicitor

Arthur W. Dickson *ppp*
President *Shu*

The above schedule is amended to moderate work flow so that the total cost should not exceed \$40,000. for fiscal year 1979. *and*

James L. Sullivan
City Manager

and

**SYSTEM TECHNOLOGY
ASSOCIATES INC.**

P. O. BOX 1173
1142 MAIN STREET
CONCORD, MASS. 01742

October 6, 1977

Mr. Charles R. Lavery, Jr.
Chairman, Board of Assessors
Cambridge, Massachusetts

Dear Mr. Lavery:

In accordance with our previous conversations, I am writing this letter to define the agreement between the City of Cambridge and System Technology Associates Inc., of 18 Main Street, Concord, Massachusetts (STA) for the provision of middle management services to the Board of Assessors for the Cambridge Valuation Project.

1. In accordance with our proposal dated October 5, 1977 STA will provide services as described below over a period of 12 months from the signature date on this agreement.

a) Overall Project Management

STA will assign a senior project manager to monitor and coordinate the data system aspects of the Cambridge valuation project.

It is estimated that the manager will spend 12 hours per month at \$42 per hour.

Total estimate \$6,000 for 12 months

b) Review of Present Data and Systems Design

*6-23-77
6-22-77
6-10-77
6-1-107-0403-00
311-4000.00*

In accordance with paragraph 2.0 of the proposal, STA will review the data presently recorded on the Cambridge property record cards to be sure all necessary data are being recorded and will provide a data system design.

STA will prepare layouts of computer entry type property record cards for residential, commercial/industrial and exempt properties. These layouts will be suitable for procurement of the cards from a data form company.

STA will prepare samples of owner confirmation and/or questionnaires.

The above data review and system design service will be provided at the following rates:

Data review

Data Clerk	\$1,360/month	
Estimate 1 month		\$1,360

System Design (including card design)

System Analyst	\$3,000/month	
Estimate 1 month		\$3,000

c) Data Transcription

STA will provide instructions and supervisory assistance for transcription of current data onto the new data entry type property record cards. This service will be provided at the following rates.

Supervisory data clerk	\$1,360/month	
Estimate 2 months		\$2,720

d) Pilot Operation

STA will use a sample batch of property record data to assemble a pilot data base and will construct one or more multiple regression models for predicting market value.

The rate for this service will be as follows:

Assembly and editing of pilot data base		
\$3.00 per parcel		
Estimate 1,000 parcels		\$3,000

Construction of MRA Model(s)		
Mathematician \$300/day		
Estimate 20 days		6,000

Computer \$1,200/hour		
Estimate 1 hour		<u>1,200</u>

Total Estimate \$23,280

2. STA will send a report of services provided together with an invoice for the cost of such services monthly to the Board of Assessors. The amount of the invoices will be computed from the amount of time spent by STA personnel and the amount of computer time expended at the above stated rates.

3. This agreement is construed by the undersigned to be a contract under the Laws of the Commonwealth of Massachusetts.

Signed this 17 day of October 1977.

*NIVERSITY
CITY*

Board of Assessors
City of Cambridge

System Technology Associates, Inc.

Charles Lutz

Frank D. McDonald

Rudolph R. Russo

Arthur W. Dickson
President



CITY OF CAMBRIDGE

CAMBRIDGE, MASSACHUSETTS 02139

Tel. 498-9011

EXECUTIVE DEPARTMENT

ROBERT W. HEALY

City Manager

December 14, 1981

To the Honorable, the City Council:

With respect to Awaiting Report Item No. 10 regarding System Technology Associates, enclosed please find copies of contracts and payments made to date on these contracts.

Very truly yours,

Robert W. Healy
City Manager

RWH/mbf
Encs.

Agenda Item Number Eight

S-673.

Re: response to Awaiting Report Item No. 10
regarding System Technology Associates.

In City Council,

December 14, 1981

12/14/81

Placed
on

File