

CITY HALL

D 2000 TELEPHONE SYSTEM

INSTALLATION COST

In November of 1978 the Dimension 2000 system was installed at City Hall and 38 other departmental locations throughout the City that are all part of the City Hall system.

The installation cost for City Hall and the 38 other locations was \$34,498.00.

MAINTENANCE COST

Repair and replacement costs of equipment and service are provided to New England Telephone customers at no additional charge.

Since the installation of this system, the City has had some form of Station Message Detail Recording equipment to assist us in managing the system and aid us in controlling the cost of calls.

To date, we have not paid for any of this equipment, as we feel that none of this equipment functioned as New England Telephone claimed it would prior to its installation. In the last month, New England Telephone has provided us with a piece of equipment that we feel will function in the manner that New England Telephone claims and we will in the next month be paying \$573.00/mo. for this equipment. For the past three and a quarter years, New England Telephone has not received any revenue on any of the equipment it has installed to help monitor the system.

COST OF THE 608/701 TELEPHONE SYSTEM

The old telephone system referred to as the "701" system, did not provide service to all departments currently serviced by the present telephone system. Therefore the figures include all telephone costs for the 701 system and the various costs for telephone services not included on the old system.

TELEPHONE COSTS IN 1977

Service & Equipment	8156.00
Message Units	5366.00
Long Distance	1345.00

MONTHLY COST	14, 867.00
701 System in	
1977	

TELEPHONE COSTS FOR SAME SERVICE IN 1982

Service & Equipment (14.3% increase)	9322.00
Message Units (11.48% increase)	5982.00
Long Distance (8.5% increase)	1459.00

MONTHLY COST	16,763.00
FOR THE OLD SYSTEM	
IN 1982	

COST OF THE OLD TELEPHONE SYSTEM (701) VS. DIMENSION 2000

MONTHLY CHARGES	COST OF 701 SYSTEM IN 1982	DIMENSION COST
SERVICE & EQUIPMENT	9 322.00	13 524.00
MESSAGE UNITS	5 982.00	4 498.00
LONG DISTANCE	1 459.00	1 515.00
MONTHLY TOTALS	16 763.00	19 537.00

The cost of Dimension 2000 is approximately \$ 2 774.00/month over the old "701".

The increase of \$ 2 774.00 includes additions to the telephone system that were not on the old system. In particular CETA and the Eastern Middlesex Human Resource Development Agency (EMHRDA). To present an accurate comparison of the two systems, the monthly costs of those two agencies (which were included in achieving the above Dimension costs) must be deducted from the current cost as the City is reimbursed by those agencies:

19 537.00 Dimension including COMA and CETA

1 800.00 Less reimbursement for service, message units, long distance

17 737.00 Monthly figure to be compared with equivalent service
of the 608/701 system

In making the comparison between the old and the new system the difference between the cost of the old and the cost of the current system less reimbursement from CETA and EMHRDA is actually \$ 974.00 per month.

In addition to CETA and EMHRDA the City has added other agencies to the system that were not a part of the old system: the Arts Council, Consumer's Commission, Animal Commission, Commission on the Status of Women and Parking Violations Bureau to name a few. These agencies represent a part of the \$974 monthly increase and actually lessen the margin between the old and new system by approximately \$520/mo bringing the dollar difference between the new system and the old system to \$ 450.00/mo.

The actual difference between the old system and the new system is that the new system is approximately \$450 more per month than the "701" system.

On a yearly basis the increase is \$5400.00, however, under the old system 2 full time switch board operators were required to run the system. The Dimension system has enabled us to eliminate one full time operator and assign the one operator to answering the switchboard and providing City Hall with a general receptionist. Approximately 50% of the operator's time is spent in telephone related duties and the other 50 % is spent in functioning as the receptionist for City Hall.

COSTS (continued)

The City experiences a saving of approximately \$16,000 in personnel costs by the elimination of the second full time telephone operator. In fact, due to the additional responsibility of the operator as the receptionist for City Hall we have cut one and one-half positions a net savings of approximately \$ 24,000/yearly.

RECAP OF COST DIFFERENCES

COST OF DIMENSION

MONTHLY CHARGES

TELEPHONE BILLS + 5 400.00 on a yearly basis (\$ 450/mo.)

SALARIES ON THE

OLD SYSTEM

2 FULL TIME OPERATOR

AT 1982 SALARY RATE 32 040,00 yearly

CURRENT SALARY FOR

OPERATOR

16 020.00 yearly

*16 020.00 Dimension Salary Savings

* This figure represents one operator cut, with the additional duties of the operator and the direct inward and outward dialing feature of the Dimension 2000 system, the savings approach \$24,000. 1½ positions cut.

SALARY COST SAVINGS

DIMENSION

16 020.00

- 5 400.00 less yearly increase in bills

10 620.00 YEARLY SAVINGS WITH DIMENSION

In addition to this yearly figure of \$10 620.00 in Dimension saving, the City was offered a 2 tier billing plan when it installed the new system. Under this arrangement, the City can expect a reduction of their present Service and Equipments Costs after the seven year with this system. In 1986, our Service and Equipment bill will be reduced by approximately \$3500 per month or \$42,000. 00 annually.

DEPARTMENTAL BREAKDOWN OF STATIONS

FEBRUARY 1982

Affirmative Action	2	Mayor's Office	7
Animal Commission	2	Personnel	17
Arts Council	5	Public Works	44
Assessors	12	Purchasing	10
Auditing	17	Rent Control	19
Building	16	Retirement	5
Budget	9	Traffic	30
City Clerk	10	Treasury	31
City Council	5	Veterans	11
Community Development	51	Water	20
Conservation Commission	1	Weights & Measures	1
Consumer's Commission	2	Women's Commission	3
Election	6		
Electrical/Fire	2		
Executive	6	Col . 2 total	198
Historical	6		
Human Services	46	TOTAL ACTIVATED STATIONS	450
Human Services			
Community Schools	14	Inactive Stations formerly	
Human Services		Assigned to COMA/CETA	
Hoyt, Rindge Shelter		And EMHRDA	69
& War Memorial	3		
Law	6		
Library	26		
License	5		
Col. 1 Total	252		

REVERTING TO THE FORMER TELEPHONE SYSTEM OR ITS ALTERNATIVES.

When Dimension 2000 was installed in November of 1978, the 608/701 system had already ceased to be manufactured by Bell telephone. Customers who have not replaced this equipment as yet will in the next year or so be forced to purchase it outright or replace it.

The 701 system is no longer being offered by New England Telephone. An alternative to the Dimension 2000 system would be a Dimension 600 system, which New England Telephone Company admits would cost us more in the long run as we would loose our 2 tier billing agreement and the installation charges would be excessive in comparison to what we paid in 1978 for the Dimension 2000 system.

CAMBRIDGE HOSPITAL

<u>Average - 1979</u>		<u>1982</u>	
Service & Equipment	\$6,355.25	Service & Equipment (14.3%)	\$7,264.05
Message Units	6,302.56	Message Units (11.42%)	7,026.09
Itemized Calls	1,168.52	Itemized Calls (8.5%)	1,265.84
Total	\$13,826.33	Total	\$15,555.98

Comparison of Prior System versus Dimension 2000

<u>Prior System 1982</u>		<u>Dimension 2000 1982</u>	
Service & Equipment	\$7,264.05	Service & Equipment	\$12,881.73
Message Units	7,026.09	Message Units	7,443.06
Itemized Calls	1,265.84	Itemized Calls	799.65
Total	\$15,555.98	Total	\$21,124.44

	<u>Prior System</u>	<u>Dimension 2000</u>	<u>Variance</u>	<u>%</u>
Service & Equipment	7,264.05	\$12,881.73	+ 5,617.68	77.34
Message Units	7,026.09	7,443.06	+ 416.97	05.93
Itemized Calls	1,265.84	799.65	(466.19)	(36.83)
	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Total	<u>\$15,555.98</u>	<u>\$21,124.44</u>	<u>+ 5,568.46</u>	<u>35.80</u>

The variance can be attributed to the following:

Service and Equipment costs would reflect the expansion of services provided by the Cambridge Hospital and the Neighborhood Health Clinics. This growth has been included in the cost comparison as provided.

Message Unit costs would increase due to increased extensions put in place since the system has been installed on December 15, 1979.

Itemized Calls costs have been reduced due to closer monitoring of long distance calls placed in the normal course of business.

Savings:

- 1) Two full-time equivalent operators (yearly salary with benefits) \$41,226.
- 2) At the conclusion of the present contract in 1986 anticipated yearly savings of \$43,200 would result because of the elimination of FPATT charges.

It should be noted that if there is a change of system this FPATT savings would be lost.

Total savings (after year seven (7)):\$ 84,426.



CITY OF CAMBRIDGE

CAMBRIDGE, MASSACHUSETTS 02139
Tel. 498-9011

EXECUTIVE DEPARTMENT
ROBERT W. HEALY
City Manager

August 2, 1982

To the Honorable, the City Council:

With reference to Awaiting Report Item No. 5, enclosed please find copies of reports relative to the telephone system at City Hall (including 51 & 57 Inman Street) and the Cambridge Hospital.

Very truly yours,

Robert W. Healy
City Manager

RWH/mbf
Enc.

Agenda Item Number Six

5-541
Re: response to Awaiting Report Item No.
5 Re: telephone system at City Hall (in-
cluding 51 & 57 Inman St.) and the Cam-
bridge Hospital.

In City Council,

August 2, 1982

8/2/1982
Placed on File