



**PLYMOUTH CITY COUNCIL  
SPECIAL COUNCIL MEETING**

**MONDAY, JUNE 12, 1995**

**7:00 P.M.**

**Public Safety Training Room**

- I. City Computer System**
- II. Private Streets**

**MEMO**

**CITY OF PLYMOUTH**

**3400 PLYMOUTH BOULEVARD, PLYMOUTH, MN 55447**

**DATE:** June 8, 1995

**TO:** Mayor and City Council

**FROM:** Kathy Lueckert, Assistant City Manager

**SUBJECT:** June 12 Special Council Meeting--Delete Citizen Survey from  
Agenda

I've just learned that we will not receive the final report on the Citizen Survey until early next week. We will postpone discussion of the survey results until later in the summer.

Thanks for your forbearance.



June 6, 1995

William Pucel  
Craig Swanson  
Bass Lake Improvement Association  
5705 Evergreen Ln.  
Plymouth, MN 55442

Dear Bill and Craig:

This letter is intended to summarize the City of Plymouth's responsibilities related to the construction of a boat ramp on Larch Heights Lagoon as well as the City Staff's understanding of how you intend to regulate operation of the ramp.

As I indicated to you last week, if your Association constructs a boat ramp only, they will not need a permit from the City. The City does not regulate or only minimally regulates elements such as driveways and patios that are not considered structures. However, if the Association wants to build a fence in conjunction with the boat ramp, they will need to obtain a fence permit from the City. Furthermore, to meet City regulation, such a fence could not exceed six feet in height. In addition, if the Association wants to use temporary signs around the time of the launch dates, this will also require a permit.

The Association may need a permit from the Department of Natural Resources and I suggest you contact them immediately to avoid any delays in your construction process.

While the City does not have a large formal role in this matter, we are concerned that the boat ramp function as a good neighbor in the community. Consequently, City staff is pleased that the Association intends to closely regulate the operation of the ramp. As we understand it, 1) use will be limited to Bass Lake Improvement Association members who have paid for boat launch privileges, 2) primary use will be limited to six days in the spring and five days in the fall, 3) emergency use will involve additional fees and must be prearranged, 4) no parking of vehicles and trailers will be allowed on the ramp or the street and 5) access to the ramp will be strictly controlled by a gatekeeper.

If the Association changes any of these key guidelines, we would appreciate it if you could inform the City accordingly. The City is in a much better position to respond to

questions and concerns of neighbors when we are fully informed. Changes in the status of the proposed operation could also prompt further regulatory review by the City.

We appreciate your willingness to meet with our staff on this matter. In addition, your willingness to work with adjacent homeowners in addressing concerns will go a long way toward making the boat ramp a good neighbor on the lake.

Please contact me at 550-5052 if you have any further questions or concerns.

Sincerely,



Barbara G. Senness  
Planning Supervisor

cc: Mayor and City Council  
Joseph Cohen, Larch Heights Improvement Association

MEMO

CITY OF PLYMOUTH

3400 PLYMOUTH BOULEVARD, PLYMOUTH, MN 55447

**DATE:** June 8, 1995 for June 12, 1995 Study Session

**TO:** Mayor and City Council

**FROM:** Dwight Johnson, City Manager  
Fred Moore, Public Works Director  
Kathy Lueckert, Assistant City Manager

**SUBJECT:** Conceptual Plan for Possible Inclusion of Private Streets into City Street System

**ACTION REQUESTED:** Consider the conceptual plan for the inclusion of private streets into Plymouth's street system.

**BACKGROUND:** The City has 4.2 miles of privately owned streets, for which the City provides no maintenance services or reconstruction. Periodically the private street owners (generally homeowner's associations) inquire about the possibilities of having the City take over the streets. The major issue in taking over the streets has been to balance the financial interests of the City and its taxpayers while being fair to tax paying citizens who live on private streets.

**DISCUSSION:** Staff has developed a conceptual plan for the inclusion of private streets into Plymouth's street system. Listed below are the preliminary guidelines for the program.

- **Petition.** Homeowners along private streets must petition the City and request that the City take over maintenance responsibilities for the street. A minimum of 70% of the property owners must sign the petition. A 70% petition does not guarantee city acceptance of a private street, but will show sufficient neighborhood interest to justify City analysis and review of the request. This follows our general policy for stop signs and snowmobile trails.
- **Street Reconstruction.** For general street reconstruction projects, property owners will be assessed all costs except for credits listed in this section. Property owners will be given an assessment credit for the street reconstruction levy from the time it

was imposed. In addition, property owners will be given an assessment credit for general street maintenance services (such as sweeping and plowing) for which they have paid through property taxes. However, this credit will extend only to the current ownership of the property. This will avoid a situation in which a new property owner might receive assessment credits which date back to the construction of the home. An example of how these credits might work is attached.

- **Extensive Improvements.** Property owners along private streets taken over by the City will be assessed the full cost of improvements such as curb, gutter, storm sewer, utilities, or street widening, in accordance with present policies for public streets. It is recognized that many existing private streets cannot reasonably be widened to meet City standards for new streets.
- **Assessment Agreement.** Property owners along private streets will have their property assessed prior to the start of construction. On advice of the City Attorney, all property owners will sign an assessment agreement in which they agree not to appeal their assessment for the improvements.
- **Easement.** The owners of the property on a private street must grant a street easement to the public.
- **Street Rating Program.** Private streets which are taken over by the City will be incorporated into the City's overall street reconstruction rating program. The private street will be rated and placed into the City's overall reconstruction program, according to the priority rating it receives.

***FISCAL IMPLICATIONS.*** Since the City has 247 miles of public streets, the eventual addition of up to five more miles of private streets (2.5% increase) will not strain the finances of our Street Reconstruction Fund. Funding for the Street Reconstruction Fund was increased in 1994, partially because of the private street issue.

We believe these guidelines provide a good foundation for a program to incorporate private streets into the City's system, should property owners request the action. If you concur with the general guidelines, we will develop a policy or ordinance for you to adopt.

Attachments: Assessment Credit Discussion Sheet  
Map showing private streets in Plymouth

## Assessment Credits for Property Owners Along Private Streets

### Street Reconstruction Credit

The Street Reconstruction Levy has been in existence since 1988. In 1995, the owner of a home valued at \$120,000 contributes around \$24.50 of the city tax bill to the street reconstruction levy. The proposal for a street reconstruction levy credit is to give property owners a credit of a set dollar amount for each year they have owned the property:

**Example:** Property owned for 8 years; flat credit fee of \$25 for each year of ownership.

$$\$25 \times 8 = \$200.00 \text{ street reconstruction assessment credit}$$

### Street Maintenance Credit

Private street property owners have paid for street maintenance services through their property taxes, but have not received services. A possible means of recognizing this is to calculate a credit based on the City's cost per foot to provide street maintenance service and the property owner's frontage feet. Over the last fifteen years, it has cost an average of \$1.15 per centerline foot to maintain the City's street network. The credit would calculate the frontage feet, multiply it by the average cost per foot and by the years of property ownership. The property owners on each side of the street would receive credit for half of the cost of maintenance per centerline foot.

**Example:** \$0.575 credit per front foot, 100 front feet, property owned for 10 years

$$\$0.575 \times 100 \times 10 = \$575 \text{ street maintenance credit}$$

### Impact on Total Assessment

On recent street reconstruction projects, the average total construction cost per home owner is around \$3,000. Using the credits in the example above, the homeowner on a private street would receive a total credit of \$775, and thus would be assessed \$2,225 on the project.

### Other Considerations

Some long-time owners could possibly receive enough credit that their assessment would be less than other Plymouth residents (currently \$936). Therefore, a cap on the total assessment credit given to any property owner should be enacted so that no property owner pays less than the City's standard assessment.

In some neighborhoods where homes are roughly equal in value, an average assessment could be applied to each property owner. This would tend to equalize the assessments for all property owners. It also could provide a mechanism to account for common areas which might be maintained by the homeowner's association.

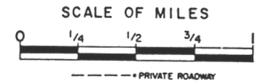
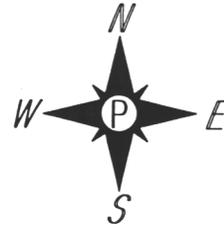
## Areas with Private Streets

Look for corresponding numbers on attached map

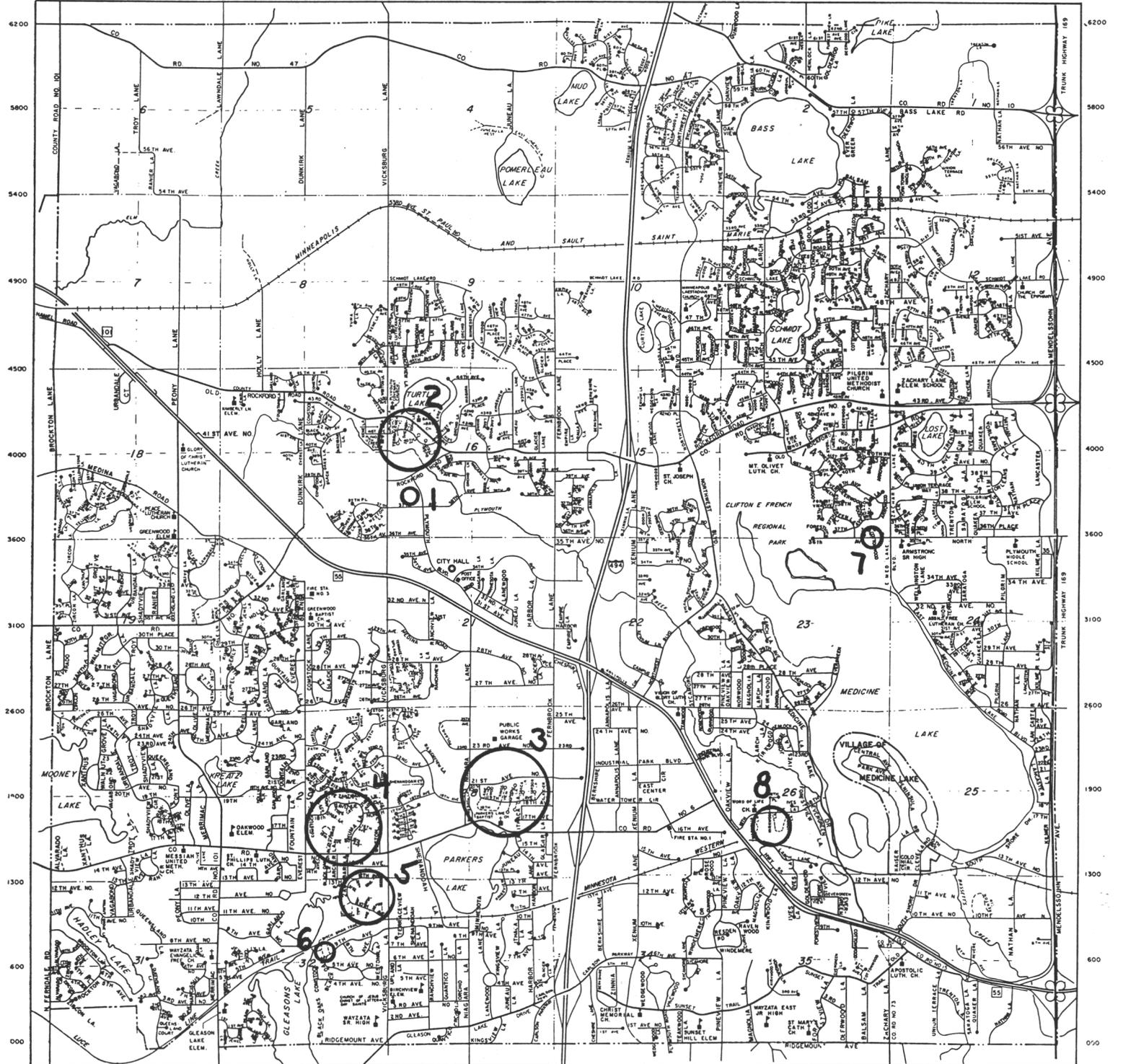
1. Plymouth Creek
2. Plymouth Hills 3
3. Cimarron East
4. Chelsea Woods
5. Cimarron Ponds
6. R.L.S. 684
7. Mission Ponds 1 & 2
8. Fox Forest 2nd



# CITY OF PLYMOUTH



- 8100 BROOKTON
- 8000 ALVARADO
- 8900 ZENITH
- 8800 YELLOWSTONE
- 8700 XANTHUS
- 8600 WALNUT GROVE
- 8500 WINDY HILLS
- 8400 WINDMILL
- 8300 TROY
- 8200 SHADYVIEW
- 8100 RAHIER
- 8000 QUEENSLAND
- 7900 PEONY
- 7800 OLIVE
- 7700 MARCISSUS
- 7600 HERRING
- 7500 HERRING
- 7400 KIMBERLY
- 7300 JEWEL
- 7200 INLAND
- 7100 HOLLY
- 7000 GARLAND
- 6900 FOUNTAIN
- 6800 EVEREST
- 6700 CONTOUR
- 6600 CONTOUR
- 6500 BLACK OAKS
- 6400 ARCHER
- 6300 ZANZIBAR
- 6200 YUMA
- 6100 BEE
- 6000 WESTON
- 5900 WESTON
- 5800 VICESBURG
- 5700 UPLAND
- 5600 TERRACEVIEW
- 5500 TERRACEVIEW
- 5400 RANCHVIEW
- 5300 RANCHVIEW
- 5200 QUARTICO
- 5100 POLARIS
- 5000 ORCHID
- 4900 NIAGARA
- 4800 MINNESOTA
- 4700 LANEWOOD
- 4600 KINGSVIEW
- 4500 JANEAU
- 4400 HARBOR
- 4300 GLACIER
- 4200 FENNBROOK
- 4100 DALLAS
- 4000 CHESTER
- 3900 BENSHERE
- 3800 ANAPOLIS
- 3700 ZINBIA
- 3600 TULLA
- 3500 TULLA
- 3400 WEDGEWOOD
- 3300 VINEWOOD
- 3200 UNDERWOOD
- 3100 TEAKWOOD
- 3000 STYAMORE
- 2900 ROSEWOOD
- 2800 QUINWOOD
- 2700 PINEVIEW
- 2600 DARVIEW
- 2500 MONWOOD
- 2400 MARCHOLIA
- 2300 LARCH
- 2200 LARCH
- 2100 JONKAL
- 2000 IVES
- 1900 HEMLOCK
- 1800 BOLDENWOOD
- 1700 FORESTVIEW
- 1600 EVERGREEN
- 1500 DEERWOOD
- 1400 COTTONWOOD
- 1300 BALSAM
- 1200 ARROWWOOD
- 1100 ZACHARY
- 1000 TOWNHOM
- 9000 WILKINSON
- 8000 VALLEY FORGE
- 7000 UNION TERRACE
- 6000 TRENTON
- 5000 SARATOGA
- 4000 HEVERE
- 3000 QUAKER
- 2000 PILGRIM
- 1000 MATAMAS
- 8000 MONTICELLO
- 7000 LANCASTER
- 6000 MILNER
- 5000 TX 89



## STREET MAP

--- INDICATES PRIVATE STREET  
PLYMOUTH ENGINEERING  
REVISED DECEMBER 1994

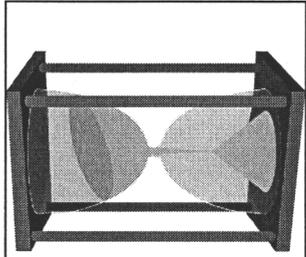
**CITY OF PLYMOUTH**  
**CITY COUNCIL**  
**STUDY SESSION MATERIALS**

The following materials are provided in preparation for Council review of issues related to developing our information systems. No action is needed at the June 12 meeting. All action items will appear on the regular agenda for June 20.

**Summary of memo**

**Proposed resolution(s)**

- |  |  |
|--|--|
| 1. Describes proposal to purchase Unisys equipment   | Replace current system at a cost of \$281,000 (plus tax)   |
| 2. Describes proposal to implement GIS system  | Join LOGIS as an "associate member" (without on-going obligation) to purchase GIS-related services   |
| 3. Describes proposal to upgrade and expand Plymouth computer networks   | Upgrade existing server and add a second server at a cost of \$70,300 (plus tax).<br><br>Issue RFP to upgrade physical network (estimated cost of \$25,000).   |
| 4. Describes current progress on establishing systems migration work plan as well as connecting our network to the Internet. | None at this time. We will likely ask the Council to review a resolution at the July 11 meeting calling for issuing an RFP to engage consulting help in selecting a successor system to our existing Unisys-based software. The attached chart provides an initial draft of a conceptual overview for the migration timetable. |



# Long-range migration timetable

## Initial Concept (Draft)

Application	1995				1996				1997			
	Qtr. 2	Qtr. 3	Qtr. 4	Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4	Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4	
Aplims			↕									
Fixed assets					↕	↕						
Budgetary					↕	↕						
Geobase									↕	↕		
Parks									↕	↕		
Payroll										↕		
Trees/Request												
Utilities												

Revision date: June 1, 1995

**Agenda Number:**

**CITY OF PLYMOUTH**  
**CITY COUNCIL AGENDA REPORT**

**TO:** Dwight D. Johnson, City Manager  
**FROM:** Stan Birnbaum, IMS Manager, through Dale E. Hahn, Finance Director  
**SUBJECT:** PROPOSAL TO PURCHASE UNISYS EQUIPMENT  
**DATE:** June 8, 1995 for City Council Meeting June 20, 1995

1. **ACTION REQUESTED:** Adopt the attached resolution authorizing purchase of a new Unisys computer system at a cost of \$281,000 plus sales tax.
  
2. **BACKGROUND:** The City continues to rely on its Unisys model A-5 computer hardware and software package purchased in 1987. The City has outgrown the capabilities of the software, which though well suited to our needs a decade ago, is unable to meet our current and emerging needs. We are launching an aggressive process to locate and implement new software systems. At best, the process of replacing our applications will require thirty months. Because our current software can only run on Unisys' "A series" equipment, we need to continue to provide "A series" capability for at least thirty months.

The projection of a minimum of thirty months to replace all systems includes recognizing a need to perform the following steps with each major system migration we manage:

1. Perform comprehensive needs analysis and preparation of requirements document
2. Issue requests for proposals to appropriate vendors
3. Evaluate responses to RFPs, visit vendors and visit reference sites
4. Establish direction for obtaining appropriate hardware and systems capability (this step might also involve issuing additional RFPs)
5. Install and configure system
6. Design and implement data migration strategy (for some systems, this will be the single most difficult step)
7. Train users and launch new system

While some of this work can overlap as we deal with multiple systems, it is not feasible to perform all system migrations simultaneously.

Dwight D. Johnson, City Manager  
May 30, 1995  
Page Two

Because of Unisys' pricing strategy, our continuing operating costs have become prohibitive. These operating costs, which include "use" licenses for the system software, "update" subscriptions for the system software and maintenance of the hardware currently amount to about \$12,000 per month. Including a conservative estimate of increases we anticipate with contract renewal this fall, we are estimating operating costs for our current environment at \$382,600 for the last half of 1995 through the end of 1997.

Unisys' pricing strategy includes significant incentives for replacing systems and significant disincentives for keeping older equipment in service. As a result of their pricing strategy, we have a cost-effective opportunity to save costs by replacing our equipment.

**3. ALTERNATIVES:** Four alternatives have been identified:

1. Make no changes, continuing to operate the "A-5" we currently own, with estimated operating costs of \$382,600 during the next thirty months.
2. Replace our current system with a Unisys Series A-14 Model 311. This solution would provide modest gains in capacity and performance at a thirty-month cost of \$353,800. The thirty-month cost includes a one-time cost of \$281,000 and operating costs of \$72,800.
3. Replace our current system with a Unisys Series A-14 Model 511. This solution would provide a 40% gain in performance along with modest gains in capacity at a thirty-month cost of \$392,100. The thirty-month cost includes a one-time cost of \$306,100 and operating costs of \$86,000.
4. Purchase used hardware from an equipment broker at an estimated capital cost of \$50,000 with operating costs roughly equivalent to our current operating costs. This would result in a thirty-month cost of approximately \$432,600.

The table at the top of the next page provides the details supporting these estimated thirty-month costs.

**Estimated Costs for "A-series" Unisys Equipment  
 July 1995-December 1997**

		1995 (6 months)	1996 (12 mos.)	1997 (12 mos.)	Total (30 mos.)
<b>Option 1</b> (do nothing)	One-time	0	0	0	0
	Annual recurring	71,200	150,300	161,100	382,600
	<b>Total</b>	<b>71,200</b>	<b>150,300</b>	<b>161,100</b>	<b>382,600</b>
<b>Option 2</b> (upgrade to Unisys A14 Model 311)	One-time	281,000	0	0	281,000
	Annual recurring	11,400	27,800	33,600	72,800
	<b>Total</b>	<b>292,400</b>	<b>27,800</b>	<b>33,600</b>	<b>353,800</b>
<b>Option 3</b> (upgrade to Unisys A14 Model 511)	One-time	306,100	0	0	306,100
	Annual recurring	12,900	32,600	40,500	86,000
	<b>Total</b>	<b>319,000</b>	<b>32,600</b>	<b>40,500</b>	<b>392,100</b>
<b>Option 4</b> (purchase used on secondary market)	One-time	50,000	0	0	50,000
	Annual recurring	71,200	150,300	161,100	382,600
	<b>Total</b>	<b>121,200</b>	<b>150,300</b>	<b>161,100</b>	<b>432,600</b>

**4. DISCUSSION:** Formal pricing from Unisys (based on State contract) was reviewed for option 2 and 3. We have estimated the cost of option 1 using the best possible scenario we can expect. While it is possible that we might receive less favorable pricing from Unisys for maintenance costs on our current "A-5" equipment in future years, maintenance costs with new equipment can be guaranteed in a contract. Option 4 was quickly eliminated from consideration, as we would have the disadvantage of a one-time expense for equipment in addition to incurring operating expenses much like our current pricing structure. Two specific scenarios were priced out; each scenario resulted in operational costs within 5% of our current experience.

The hardware configurations developed for options 2 and 3 increase our data storage space by about 25%, resolving a critical resource shortage in our current systems. The amount of system memory is doubled, which should relieve some of the congestion in our current mix of computer tasks. Finally, these solutions also include an automated tape system, offering a much more efficient approach to operations and better protection of our data while providing a substantial reduction in operator attention.

Dwight D. Johnson, City Manager  
May 30, 1995  
Page Four

Option 1, the "do nothing" option, is not in the City's financial interests. Option 3 might be preferable if we planned to see continued growth in our requirements for Unisys A-series capability. However, because we believe we will be moving systems off the mainframe as rapidly as possible, we expect to see incremental drops in the demand for this resource over the thirty-month time period. Our stated strategy to reduce our reliance on this resource makes option 3 unattractive.

Option 2 has been identified as the preferred option for the City. Unisys' pricing gives us an opportunity to achieve moderate gains in computing and operational resources while saving \$28,800 during a thirty-month period. This is a minimum projection of savings. If we need "A series" capability for thirty-six months, for example (instead of thirty months), total savings are estimated at \$75,000.

This analysis focuses only on known costs, with a conservative approach to developing each cost estimate. There are two other advantages to purchasing a replacement system, which are harder to predict with any precision. The first advantage is in the sharply reduced power consumption and cooling requirements of the new hardware. We estimate energy savings of about \$1500-2000 per year. We can also expect modest resale value of the hardware at the end of thirty months, which can be estimated conservatively at \$20,000 or more.

5. **BUDGET IMPACT:** Funds are available within the computer reserve to cover the cost of the recommended purchase.
6. **RECOMMENDATION:** I recommend the City Council adopt the attached resolution authorizing purchase of a Unisys series A-14 Model 311 computer system at a cost of \$281,000 (plus sales tax)

**CITY OF PLYMOUTH**

**RESOLUTION NO. 95-**

**PURCHASE OF A REPLACEMENT  
UNISYS A-SERIES COMPUTER SYSTEM**

**WHEREAS**, the City will continue to need Unisys "A-series" computer capability for at least the next thirty months, and

**WHEREAS**, the City can enhance this capability at lower cost by replacing its current model A-5 system with a series A-14 Model 311 system;

**NOW, THEREFORE, BE IT HEREBY RESOLVED BY THE CITY COUNCIL OF THE CITY OF PLYMOUTH, MINNESOTA, THAT THE** Finance Director is authorized to enter into an agreement with Unisys for a Series A14 / Model 311 computer system with one-time hardware and software costs of \$281,000 (plus sales tax).

**BE IT FURTHER RESOLVED**, that the funding for the Unisys computer system be provided from the Computer Reserve.

Adopted by the City Council on June 20, 1995.

**Agenda Number:**

**CITY OF PLYMOUTH**  
**CITY COUNCIL AGENDA REPORT**

**TO:** Dwight D. Johnson, City Manager  
**FROM:** Stan Birnbaum, IMS Manager, through Dale E. Hahn, Finance Director  
**SUBJECT:** GIS UPDATE / PROPOSAL TO JOIN LOGIS  
AS AN ASSOCIATE MEMBER  
**DATE:** June 8, 1995 for City Council Meeting June 20, 1995

1. **ACTION REQUESTED:** Adopt the attached resolution authorizing the City of Plymouth to join LOGIS (Local Government Information Systems Association) as an "associate" (LOGIS requires a council resolution to accept a city as a member).
  
2. **BACKGROUND:** The City is moving aggressively on its plans to implement Geographical Information Systems technology (GIS) at the City Center complex. GIS technology makes it possible to incorporate geographic information with other data to facilitate a broad range of planning and analytical activities. During the past year, the City relied Dahlgren, Shardlow and Uban (DSU) to help acquire basic information to support the City's GIS requirements. This step will be completed during the summer. IMS staff are working closely with an implementation team that includes a key professional from each department to provide the benefits of this technology city-wide. The total costs associated with this project are estimated at \$36,000 and are included in the 1995 general fund budget.

\$6,600 of this budget includes using GIS services available from LOGIS to help achieve the implementation as well as to provide on-going data acquisition services to the City. LOGIS is a consortium owned and operated by approximately twenty municipalities in the metropolitan area. LOGIS' original model was to provide municipalities with access to the mainframe hardware and customized software. In recent years, LOGIS has added a number of related services, including developing expertise in GIS and hiring a full-time GIS specialist.

LOGIS has developed a proven process for coordinating the acquisition of changes from Hennepin County and incorporating them in our database. LOGIS' GIS consultant would also be available to help Plymouth IMS staff manage the implementation.

**3. ALTERNATIVES:** Alternatives include the following:

- using DSU for on-going assistance and maintenance of the data
- using other third parties for assistance and maintenance of the data
- investing in additional equipment and staff time at the City to do our own data acquisition.

**4. DISCUSSION:** LOGIS has developed a membership category called "associate" which permits cities to purchase limited services with no on-going commitment. The City's primary interest in joining LOGIS as an associate is to purchase GIS services on a month-to-month basis. Secondary benefits include the ability to purchase additional types of service from LOGIS on an "as needed" basis, including network engineering and support. Finally, LOGIS has negotiated an extremely advantageous contract, as the result of a comprehensive, annual bid process, that can help the city acquire much of its computer equipment at lower prices with better service and support. The City can cancel its agreement with LOGIS at any time.

Among the alternatives, acquiring our own equipment and investing in additional staff time is the least attractive item because the costs are higher (ranging from \$25,000-40,000) and the type of staff expertise needed to handle the tools cannot be developed quickly. DSU has proven highly successful at the large-scale task they were contracted for last year; they are less well equipped to handle incremental maintenance and support for the type of transition we anticipate this summer and fall. We have identified no other third parties who can provide a cost-effective solution to our current needs.

IMS staff are recommending the LOGIS solution is the lowest-cost option for acquiring the support necessary for an effective GIS implementation in the City.

**5. BUDGET IMPACT:** Funds have been budgeted in the 1995 operating budget to cover these expenses..

**6. RECOMMENDATION:** I recommend the City Council adopt the attached resolution authorizing the City of Plymouth to join LOGIS as an associate.

**CITY OF PLYMOUTH**

**RESOLUTION NO. 95-**

**JOIN LOGIS AS AN ASSOCIATE**

**WHEREAS**, the City is incorporating GIS technology into its on-going information systems network, and

**WHEREAS**, the City requires external assistance to ensure a smooth implementation and to maintain the integrity of its GIS data

**NOW, THEREFORE, BE IT HEREBY RESOLVED BY THE CITY COUNCIL OF THE CITY OF PLYMOUTH, MINNESOTA, THAT THE** City Manager is authorized to enter into the joint and cooperative agreement with Local Government Information Systems (originally dated May 1, 1972 and amended Dec. 3, 1993) with the status of "associate."

**BE IT FURTHER RESOLVED**, that all costs for these services will come from the 1995 general fund (finance budget).

Adopted by the City Council on June 20, 1995.

Agenda Number:

CITY OF PLYMOUTH  
CITY COUNCIL AGENDA REPORT

**TO:** Dwight D. Johnson, City Manager  
**FROM:** Stan Birnbaum, IMS Manager, through Dale E. Hahn, Finance Director  
**SUBJECT:** PROPOSAL TO PURCHASE ADDITIONAL NETWORKING  
HARDWARE AND SOFTWARE  
**DATE:** June 8, 1995 for City Council Meeting June 20, 1995

1. **ACTION REQUESTED:** Adopt the attached resolutions that 1) authorize the purchase of additional networking hardware and software at a cost of \$70,300 (plus tax); and 2) authorize the issuance of a request for proposals to enhance the city's physical data network.

2. **BACKGROUND:** The City first established its PC network in June 1992 with a total of 17 users. Since that time, the network has grown to just over 100 users, with about 10% annual growth anticipated for each of the next two years. In addition to the increase in user count, we are facing far more aggressive uses of the PC network as users become more involved with data-intensive applications. The GIS implementation will place further, significant strain on network resources. To address these concerns, the city needs to a) increase the capacity and range of network resources, and b) resolve the physical limitations of the current network.

*a. Increase the capacity and range of network resources*

We have for some time outgrown the capacity of our Novell server (*Novell* refers to the vendor of the tools that manage the network and provide service to PC users). The hardware technology has also proven less reliable as the number of users grows, resulting in excessive interruptions to the network. Finally, we have emerging needs for data service that cannot be met well by Novell systems. The chart on the next page identifies the purchases we are recommending to make the network responsive to current and intermediate-term future needs.

Item	Description	Cost
1. New Novell server	Replace the old Novell server with current technology and added capacity, resulting in significant gains in speed, capacity and reliability.	\$16,900
2. Add database server	Add a server designed for database performance (running the Windows/NT network). Costs include hardware as well as operating system and database management software.	\$31,400
3. Provide integrated tape backup	Disk capacity on the new servers will exceed the capacity of the tape backup solution purchased in 1992. The recommended solution calls for a single tape backup system serving both new servers.	\$7,500
4. Add network management	A complex network of over 100 users, spread over three buildings, is best maintained with "network management software." The package recommended by IMS can perform a wide variety of network management tasks, including enabling diagnosis and solution of many user problems from a management workstation.	9,200
5. Add CD-ROM to the network	The proposed solution would make a "bank" of CD-ROM devices available to all 100 users on the network at low cost per user. Increasingly, information required by the city is available at lower cost and updated more regularly in CD-ROM rather than print format.	\$5,300
<b>Total</b>		<b>70,300</b>

*Note: all figures exclude sales tax*

The prices in the previous table reflect pricing from the LOGIS contract with OPM Information Systems. This vendor, one of the metro area's leading networking specialists, won the LOGIS contract as the result of a competitive bid process. OPM's contract with LOGIS is based on a "cost-plus" formula, resulting in best available pricing with superior design, delivery and supporting services.

*b) resolve the physical limitations of the current network*

In addition to acquiring replacement and additional network servers, we will also need to enhance the physical network transporting the data. Typically, networks with a few dozen users can move data from users to server and back with a simple "hub" technology (the city has been using this type of "hub" technology for three years). As the number of users grows and the nature of their data needs become more intense, relying just on the hub technology cannot meet the total requirements for "bandwidth." *Bandwidth* refers to the amount of data that can move at once, much like the diameter of a pipe governs how much liquid can flow through the pipe. New implementations, such as GIS, will add even greater challenge to our physical networking requirements.

Determining best products and pricing for the physical network is more complex. We recommend issuing a request for proposals, which should help us both identify the preferred system design and most favorable price for the city. We are estimating a total cost of about \$25,000 to enhance the physical network. The target implementation date is late summer or early fall 1995.

**3. ALTERNATIVES:** Alternatives include the following:

- do nothing
- add incremental capacity to the existing Novell server
- implement some but not all of the suggested network enhancements

**4. DISCUSSION:** The current limitations of Plymouth's network systems requires immediate and significant action. Without resolving current problems, many of which are inter-related, we will both hamper the effectiveness of staff and impede the city's progress in "downsizing" its information environment. While the "do nothing" option will save capital dollars today, a number of significant current projects and commitments are "at risk" if we do not provide aggressive enhancements to our network environment, including:

- GIS implementation (including integrating GIS with our current parcel database)
- Replacing mainframe applications with "downsized" applications on the network (we are currently working on systems for the Inspections and Forestry divisions)
- Standardizing all system users on current versions of office automation packages (such as word processing and spreadsheets)
- Centralizing all data on servers so that we can protect all city information with a tape backup solution

Other consequences of selecting the "do nothing" option include utilizing greater staff resources to manage our networks, which will take away from staff availability to implement new information systems and solutions.

Providing incremental additional capacity to the existing Novell system can provide only extremely limited gains. We can provide some expansion of disk capacity, but would run out of expansion capability within the next twelve months. We are unable to add enough memory to provide significant performance improvements, and cannot upgrade the basic speed of the machine.

The Novell environment is also poorly suited to providing the type of database service that will be required by our GIS implementation. Should we choose not to add a Windows/NT server, we would be faced by the need to acquire a UNIX minicomputer to handle our longer-term GIS needs. The cost for the UNIX minicomputer would significantly exceed the costs of the proposed Windows/NT server.

Without upgrading the physical network to better manage our "bandwidth" requirements, we introduce the increasing likelihood that the physical networking (the cable and its management) will slow the network down, resulting in poorer response for users. A poorly managed physical network can "eat up" more computing resources than a well-designed server environment can provide.

Dwight D. Johnson, City Manager  
May 30, 1995  
Page Five

All components of the enhanced network design are "scaleable," giving us opportunities to add capacity as needed during the next three years. For example, both the amount of disk storage and memory resources in each proposed system can expand by a factor of six to ten. We believe that the capacity proposed in this memo will meet all of our needs for eighteen months and that only incremental additions will be required in the second eighteen months. The cost of anticipated, incremental additions can be managed within our current level of spending in the general fund.

5. **BUDGET IMPACT:** Funds are available within the computer reserve to cover the cost of the recommended purchases.
  
6. **RECOMMENDATION:** I recommend the City Council adopt the attached resolutions authorizing the purchase of \$70,300 in network products from OPM Information Systems (through OPM's contract with LOGIS) and authorizing the City to issue a request for proposals for enhancing the City's physical network.

**CITY OF PLYMOUTH**

**RESOLUTION NO. 95-**

**PURCHASE OF ADDITIONAL  
DATA NETWORKING TECHNOLOGY**

**WHEREAS**, the City has experienced sustained and rapid growth in its utilization of PC networks during the last three years

**WHEREAS**, the City's PC networks can no longer meet the requirements of current and proposed systems

**NOW, THEREFORE, BE IT HEREBY RESOLVED BY THE CITY COUNCIL OF THE CITY OF PLYMOUTH, MINNESOTA, THAT THE** Finance Director is authorized to purchase additional networking technology from OPM Information Systems at a cost of \$70,300 (plus tax).

**BE IT FURTHER RESOLVED**, that the funding for the added networking technology be provided from the Computer Reserve.

Adopted by the City Council on June 20, 1995.

**CITY OF PLYMOUTH**

**RESOLUTION NO. 95-**

**ISSUANCE OF REQUEST FOR PROPOSALS  
ENHANCE CITY'S PHYSICAL DATA NETWORK**

**WHEREAS**, the City has experienced sustained and rapid growth in its utilization of PC networks during the last three years

**WHEREAS**, the City's physical network can no longer meet the requirements of current and proposed systems

**NOW, THEREFORE, BE IT HEREBY RESOLVED BY THE CITY COUNCIL OF THE CITY OF PLYMOUTH, MINNESOTA, THAT THE** Finance Director is authorized to issue a Request for Proposals to provide new physical networking for the City.

Adopted by the City Council on June 20, 1995.

**MEMO**

**CITY OF PLYMOUTH**

3400 PLYMOUTH BOULEVARD, PLYMOUTH, MN 55447

DATE: June 12, 1995

TO: Dwight Johnson, City Manager

FROM: Stan Birnbaum, IMS Manager, through Dale E. Hahn, Finance Director

SUBJECT: Updates on information systems

1. We are making rapid progress on joining our network to the Internet. Achieving this goal will enhance our ability to communicate with citizens, as well as provide citizens with electronic access to Plymouth information. I am confident that the implementation we are planning and services we expect to purchase will give us a stable approach to providing this access. Once we have achieved the connection, which I expect to see at the end of August or first part of September, we will be able to proceed with our work on designing a World-Wide Web home page that can provide significant external access to information. I am also confident that as an organization, we are taking the right steps to secure our networks and protect Plymouth data.
2. As we wrap up our work with the Information Systems Steering Committee (the ISSC) to develop a sequence for migrating our major systems, we will next need to proceed through a careful process of determining our requirements for new systems and identifying software vendors. I believe that we can identify our requirements and select vendors in a more timely way and at a higher level of quality by working with a well qualified consultant. I look forward to working with the ISSC to design a consultation that can enhance the quality of our work at an appropriate cost. I believe that the cost of a well designed and appropriate-scale consultation is one of the best investments we can make to control the risk of moving to new systems. I would like to see the ISSC wrap up its discussions on this subject by the end of June so that we can prepare a council report and resolution at the July 11 meeting.

MEMO

CITY OF PLYMOUTH

3400 PLYMOUTH BOULEVARD, PLYMOUTH, MN 55447

**DATE:** June 8, 1995 for June 12, 1995 Study Session

**TO:** Mayor and City Council

**FROM:** Dwight Johnson, City Manager  
Fred Moore, Public Works Director  
Kathy Lueckert, Assistant City Manager

**SUBJECT:** Conceptual Plan for Possible Inclusion of Private Streets into City Street System

***ACTION REQUESTED:*** Consider the conceptual plan for the inclusion of private streets into Plymouth's street system.

***BACKGROUND:*** The City has 4.2 miles of privately owned streets, for which the City provides no maintenance services or reconstruction. Periodically the private street owners (generally homeowner's associations) inquire about the possibilities of having the City take over the streets. The major issue in taking over the streets has been to balance the financial interests of the City and its taxpayers while being fair to tax paying citizens who live on private streets.

***DISCUSSION:*** Staff has developed a conceptual plan for the inclusion of private streets into Plymouth's street system. Listed below are the preliminary guidelines for the program.

- **Petition.** Homeowners along private streets must petition the City and request that the City take over maintenance responsibilities for the street. A minimum of 70% of the property owners must sign the petition. A 70% petition does not guarantee city acceptance of a private street, but will show sufficient neighborhood interest to justify City analysis and review of the request. This follows our general policy for stop signs and snowmobile trails.
- **Street Reconstruction.** For general street reconstruction projects, property owners will be assessed all costs except for credits listed in this section. Property owners will be given an assessment credit for the street reconstruction levy from the time it

was imposed. In addition, property owners will be given an assessment credit for general street maintenance services (such as sweeping and plowing) for which they have paid through property taxes. However, this credit will extend only to the current ownership of the property. This will avoid a situation in which a new property owner might receive assessment credits which date back to the construction of the home. An example of how these credits might work is attached.

- **Extensive Improvements.** Property owners along private streets taken over by the City will be assessed the full cost of improvements such as curb, gutter, storm sewer, utilities, or street widening, in accordance with present policies for public streets. It is recognized that many existing private streets cannot reasonably be widened to meet City standards for new streets.
- **Assessment Agreement.** Property owners along private streets will have their property assessed prior to the start of construction. On advice of the City Attorney, all property owners will sign an assessment agreement in which they agree not to appeal their assessment for the improvements.
- **Easement.** The owners of the property on a private street must grant a street easement to the public.
- **Street Rating Program.** Private streets which are taken over by the City will be incorporated into the City's overall street reconstruction rating program. The private street will be rated and placed into the City's overall reconstruction program, according to the priority rating it receives.

***FISCAL IMPLICATIONS.*** Since the City has 247 miles of public streets, the eventual addition of up to five more miles of private streets (2.5% increase) will not strain the finances of our Street Reconstruction Fund. Funding for the Street Reconstruction Fund was increased in 1994, partially because of the private street issue.

We believe these guidelines provide a good foundation for a program to incorporate private streets into the City's system, should property owners request the action. If you concur with the general guidelines, we will develop a policy or ordinance for you to adopt.

Attachments: Assessment Credit Discussion Sheet  
Map showing private streets in Plymouth

## Assessment Credits for Property Owners Along Private Streets

### Street Reconstruction Credit

The Street Reconstruction Levy has been in existence since 1988. In 1995, the owner of a home valued at \$120,000 contributes around \$24.50 of the city tax bill to the street reconstruction levy. The proposal for a street reconstruction levy credit is to give property owners a credit of a set dollar amount for each year they have owned the property:

**Example:** Property owned for 8 years; flat credit fee of \$25 for each year of ownership.

$$\$25 \times 8 = \$200.00 \text{ street reconstruction assessment credit}$$

### Street Maintenance Credit

Private street property owners have paid for street maintenance services through their property taxes, but have not received services. A possible means of recognizing this is to calculate a credit based on the City's cost per foot to provide street maintenance service and the property owner's frontage feet. Over the last fifteen years, it has cost an average of \$1.15 per centerline foot to maintain the City's street network. The credit would calculate the frontage feet, multiply it by the average cost per foot and by the years of property ownership. The property owners on each side of the street would receive credit for half of the cost of maintenance per centerline foot.

**Example:** \$0.575 credit per front foot, 100 front feet, property owned for 10 years

$$\$0.575 \times 100 \times 10 = \$575 \text{ street maintenance credit}$$

### Impact on Total Assessment

On recent street reconstruction projects, the average total construction cost per home owner is around \$3,000. Using the credits in the example above, the homeowner on a private street would receive a total credit of \$775, and thus would be assessed \$2,225 on the project.

### Other Considerations

Some long-time owners could possibly receive enough credit that their assessment would be less than other Plymouth residents (currently \$936). Therefore, a cap on the total assessment credit given to any property owner should be enacted so that no property owner pays less than the City's standard assessment.

In some neighborhoods where homes are roughly equal in value, an average assessment could be applied to each property owner. This would tend to equalize the assessments for all property owners. It also could provide a mechanism to account for common areas which might be maintained by the homeowner's association.

## Areas with Private Streets

Look for corresponding numbers on attached map

1. Plymouth Creek
2. Plymouth Hills 3
3. Cimarron East
4. Chelsea Woods
5. Cimarron Ponds
6. R.L.S. 684
7. Mission Ponds 1 & 2
8. Fox Forest 2nd

