

Blue Line TeleVillage Demonstration Project Executive Summary

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Introduction

Design Principle: What is a TeleVillage?

A TeleVillage uses telecommunications networks to help produce, adjacent to public transit, the activities that are normally found in a traditional village or town center. As a result, a TeleVillage functions like a very compact real estate development.

A consensus has grown throughout the United States, supported by transportation research findings, that the success of public transit depends on a very simple principle: *As many activities as possible should be located within easy walking distance of transit stops.*

This principle is advocated by the Federal Transit Administration, the California Air Resources Board, the Business Transportation Council, the Southern California Association of Governments, the Local Government Commission, and the Congress for the New Urbanism. It is at the heart of the joint development programs of public transit agencies. The terms *livable communities*, *compact development*, *transit oriented communities* and *transit oriented development* all incorporate that principle in their definition.

Therefore, based on its functional characteristics, *a TeleVillage is a type of “transit oriented community” for the 21st Century.* The Blue Line TeleVillage (BLTV) is a national prototype for this type of center which combines telecommunications networks, public transit, and existing transit-oriented real estate to quickly and affordably create the *functionality* of a traditional village or town center.

Underlying concept: How can telecommunication networks simulate building density and why not just build the density?

The traditional way to create mixed-use compact development -- the heart of a livable community or transit oriented development -- is to build it. But new construction requires substantial amounts of investment capital and market demand for high density designs. The development process at a particular site typically takes 2 to 5 years from beginning to end.

Due to unprecedented advances in network technologies, new construction is no longer the only option. Telecommunications networks can, if consciously used for the purpose, deliver some of the *functionality* formerly dependent on bricks and mortar. For example, an automated teller machine in 9 square feet of space provides some of the functions of a 10,000 square foot branch bank. What if telecommunication networks could be used to import many different functions in order to make a 50,000 square foot community building contain the functions-activities-services that would normally require 200,000 or even 500,000 square feet. What if a shopping center/civic

center/transit stop of 50 acres could function as if it were a traditional village center of 200 acres? That is the concept of a TeleVillage.

System components: What is included in a telecommunications network and how was it provided at the BLTV?

The key physical elements for creating this new type of super-compact development are the transmission network and the network access facilities. The transmission network consists of distribution technology such as twisted pair copper wire or optical fiber plus routing/switching and other technologies. Transmission is commercially available as a function of bandwidth, distance, duration of use, and time of day. In the Blue Line TeleVillage, network transmission was provided almost free of charge by Pacific Bell under its Education First Program.

Network access facilities include those devices that attach to the transmission network in order to use it, plus appropriate furniture and building space. In the BLTV, the network access facilities were added by the MTA to vacant space in the existing transit center. The transit center was adjacent to the civic center and a shopping center and together they form the conditions for downtown Compton to become a TeleVillage.

Technical Language: How can telecommunications networks affect the dispersed urban form that causes reliance on the automobile?

Transit agencies, local governments and private corporations, working together, can use telecommunications networks to re-center the urban form in order to make traditional public transit more effective and to expand the transit options available to citizens. In technical terms, networks can be used to *spatially reorganize urban functions* in order to consciously reshape, in a relatively short period, the automobile-dependent urban form into a more transit friendly urban form.

Origins: How did the MTA get involved in developing the prototype TeleVillage?

In 1992, the Joint Development Department of the Los Angeles County Transportation Commission (LACTC) funded a study of the strategic role that could be played by a public-private fiber optics network in the rail rights-of-way. The resulting report, written by Walter Siembab, was entitled Metro Net. It described how a system of network access centers (the core of a TeleVillage):

- ...located initially at Metro Rail and Metrolink stations,
 - ...subsequently at civic centers and shopping centers not served by rail,
 - ...and eventually in neighborhood facilities such as schools and libraries,
 - ...all connected to the Metro Network,
 - ...could quickly and affordably advance the mobility mission of the MTA.
- The Blue Line TeleVillage was the first step in the implementation of that vision.

Potential Benefits: If the promise of the concept could be fully realized by 2020, what might the benefits include, especially for the MTA?

- A mode shift would occur away from automobiles to public transit, thereby creating the conditions for better transit service and more jobs in transit. The percentage of walking trips should also increase.
- A strong association would be developed between public transit and public telecommunications where the use of one would reinforce the use of the other.
- Markets would be stimulated for new flexible, short haul public transit services and private transportation options such as station cars, other electric vehicles and even human-powered vehicles. Cal-Start and the emerging electric car industry in the region would directly benefit.
- Physical development – bricks and mortar building – would be stimulated adjacent to rail stations and major bus stops, particularly in currently depressed areas or areas with existing vacant buildings.
- The MTA would become recognized for leading a County-wide economic development strategy, reducing highway congestion and improving air quality, facilitating County growth, helping reinforce a sense of community, and providing an alternative strategy for solving a 21st Century problem – universal access to broadband telecommunications networks.

Location and Service Area

Location: Where was the BLTV located and why?

The Blue Line TeleVillage used about 2,500 square feet of space in the Martin Luther King, Jr. Transit Center (owned by the City of Compton), adjacent to the Compton Station of the Metro Blue Line. The site was chosen primarily because space was immediately available in a suitable facility adjacent to a rail station at about the mid-point on the Metro Blue Line with service from multiple bus lines.

Community Characteristics: What was in the service area of the BLTV?

The Transit Center already contained the Compton Chamber of Commerce, a Compton Police sub-station, a day care center, a Head Start Program, a beauty shop, a sandwich shop, the City of Compton's Business Assistance Center, and a Greyhound Bus Terminal.

A suburban style shopping center and the Compton Civic Center, which itself included the police station, City Hall, Post Office, and County Court House were within approximately 1/4 mile of the Transit Center. Large vacant lots are directly adjacent and within 1/4 mile.

Just under 10,000 people lived within 1/2 mile of the facility – the outer limit of walking distance. There are 41,600 people that lived within 1 mile and 133,700 within 2 miles of the facility. There were 121 business establishments with about 4,000 employees within 1/2 mile.

The service area was in a transition from African American to Hispanic origin with the current population at about 50% each. Compton is a suburban community with housing throughout the service area less dense than in the County as a whole.

In general, economic conditions in the service area were worse than in the County as a whole: Household income about 2/3 of the County average, high school graduation rate relatively low, about double the County-wide unemployment rate, low vehicle ownership, and a much higher percentage of blue collar workers.

Description

Facilities: What was in the BLTV?

The BLTV had six elements.

Computer Center – in an 800 square foot room equipped with 12 pentium computers, local area network, and internet access using 4 integrated services digital network (ISDN) lines.

Video Conference Center – in a 1200 square foot room equipped with a dual monitor group-scale video conference system, seating for up to 25 people, and 3 ISDN lines with an option for 6.

Telework Center – two semi-private work stations equipped with computers, telephones and printer, connected to the internet through the local area network in the Computer Center. The Telework Center was located in the City of Compton's Business Assistance Center (BAC) and provided teleworkers with access to the BAC's meeting room and library. The library was also equipped with a VCR and a desk-top video conferencing unit using a single ISDN line.

Kiosks – City of Los Angeles Housing Authority, AIDS Information Center of the County Museum of Science and Industry, an ATM from Wells Fargo Bank, and an ATM from the Bank of America.

Community Meeting Room -- a large space that could seat up to several hundred.

Circuit Rider Work Station – set aside so that representatives of various government agencies could appear for scheduled visits at the BLTV to provide information or directly deliver services to constituents. A benefits counselor from the Social Security Administration is an example.

Services: How was the BLTV used?

Computer Center – provided public access computing, classes ranging from an introduction to computers to intermediate level in several applications programs, internet access, contract training for local organizations such as day care providers, and facility rental to large organizations interested in conducting their own computer training programs for employees.

Video Conference Center – 24 interactive video conferences were held in addition to 50 meetings that did not use technology. The video conferences included a contract distance education class originating at California State University at Dominguez Hills; library services such as story telling for pre-school children and a book tour lecture by African American author Walter Mosley originating in the Pasadena Public Library; several small business assistance seminars sponsored by the Small Business Development Center also originating in the Pasadena Public Library; a meeting demonstrating the technology for local artists, and another with an FTA official discussing possible programs with state and federal agencies.

Telework Center – provided a professional work space for local residents who were home-based or for small and under-capitalized organizations; and provided a remote work station for employees telecommuting from a regular job. The desk-top video conferencing unit was intended for local business people to obtain one-on-one training from mentors in Small Business Development Centers located elsewhere in the County.

Community Meeting Room – Several large gatherings sponsored by the MTA or the BLTV were held there, including the community leaders planning meeting, Advisory Board meetings and a “Women’s Day” Conference. In addition, other organizations held meetings there in order to tour or to use some other element of the BLTV. These included the Inner City Computer Society, the Compton Chamber of Commerce and the Regional Business Assistance Network of the Los Angeles Economic Development Corporation.

Circuit Rider Work Station – only the federal Office of Personnel Management and the MTA provided a circuit rider, although there was community interest in other government agencies. The work station was primarily used for BLTV administration.

Membership

Membership: Why was membership offered and what was the cost?

The facilities were open to anyone and membership was not required. Membership incentives, such as an e-mail address and discounts on training programs, were offered in order to collect an array of data about BLTV users, and also to encourage investment in the facility by community members. Membership rates were nominal -- \$10 per year for an individual, \$20 for a family, and \$50 for an organization

Members: How many were there?

The BLTV offered memberships during a 9 month period of the demonstration year and sold 620 memberships during that time.

Members: Where did they live?

Members were both dispersed and concentrated around the facility. The 620 members came from 91 zip codes, or about one-half of the all zip codes in the “central” area of Los Angeles County that includes areas south of the Santa Monica Mountains west to the Orange County border. This dispersion may suggest a wide-spread interest in the services of a TeleVillage.

Members were also concentrated in the 3 zip codes adjacent to the facility, with 316 members (52% of the total) located in those 3 zip codes. Consistent with the design concept, the concentration suggests that the BLTV functioned as an activity center for the immediately surrounding area.

Mobility Results

Mobility Benefits: What transportation mode was used to get to the BLTV?

The California Air Resources Board suggests the following mobility impacts can be expected from compact development (See “The Land Use - Air Quality Linkage,” Air Resources Board, 1994).

Compact urban development in proximity to transit stations – bus or rail -- can result in higher ridership levels needed to support good transit service ... “ (page 4)

“... to the degree that offices, shops, restaurants, banks, and other activities are intermingled, people are less likely to drive and more likely to walk to destinations. This should be reflected in

lower vehicular trip generation and higher non-motorized (e.g., walking, bicycling) modal splits in mixed-use settings.” (page 17)

In other words, an MTA funded transit oriented development project should generate trips, and these trips should lead to transit and walking mode choices. The formal evaluation of the project was canceled by the MTA due to funding shortfalls, but the Drew Team as part of the FTA contract (Drew and the FTA are explained below under “Funding and Administration”) assembled base line data for the project. Among these data were a comparison of mode choices by County and BLTV Service Area residents for their journey to work (from the 1990 Census), and by members and on-site visitors for their journey to the BLTV.

	Mode Choice for Journey to Work and Journey to the BLTV			
	To Work		To BLTV	
	County	Service Area 2 mi rad	Member Data Base N=620	User Survey N=34
Auto	85.6%	88.3%	70.8%	45.4%
Transit	6.5	6.2	20.2	44.1
Walk	3.3	2.4	9.0	10.3

While comparison of these data are problematic, the result is consistent with the prediction that compact development would be characterized by less automobile use and more transit use and walking. In other words, a transit stop that is walking distance from a variety of possible destinations should generally enjoy an automobile-light mode split.

The BLTV data were collected from those specific people who came to the transit center either to access urban functions mediated by the network (such as a business assistance seminar) or to get training on- and access to- some element of the network itself. For most of them, the BLTV was their destination.

Formal research is needed to clarify the relationship between a TeleVillage and mode choice. Other transit options such as bicycle stations, station cars, and short-range flexible services should be introduced to the BLTV, and many more urban functions should be added as part of that research effort.

Mobility Concept: What urban functions were imported to the BLTV?

In theory, the mix of urban functions will draw people to a TeleVillage. In practice, it will take a few years for the BLTV to develop a rich mix of urban functions capable of generating a large number of visits. Nevertheless, one of the objectives of establishing a TeleVillage prototype was to demonstrate the feasibility of importing urban functions of interest to a low income community.

The following table summarizes the experience in the first year at the BLTV. Nine additional urban functions were demonstrated at the transit center and one existing function (business assistance) was significantly expanded over its previous level.

**Urban Functions Substituting For Physical Places
Introduced At The Blue Line TeleVillage During First Year**

Urban Functions	Physical Places
Public library services	Central library
Arts & culture	Museum
	Artist studio
Education	High School campus
	College campus
Meetings	Office building
Office work place	
Retail sales	Bookstore
Technology access	Community technology center
Training	Training center
Business assistance	Regional Small Business Development
Government program information	Federal Building
	Los Angeles City Hall
Retail banking	Branch bank

Organizational innovation: How hard was it to recruit organizations to use the BLTV?

Build it and they do not automatically come. Despite the explosion of technical advances and dramatic reductions in cost, most organizations are not experienced, knowledgeable users of telecommunications networks. Organizations contacted to participate at the BLTV typically needed help envisioning, planning and implementing a network application.

Overall, 289 organizations were approached to participate, 110 investigated the possibility, and by the end of the demonstration period, 32 had actually conducted some sort of trial at the BLTV.

This means that 9 organizations were approached for one to conduct a trial. Small, flexible organizations with front line people able to make and keep commitments for their organizations were the most likely to participate. Organizations from within the service area were as likely to participate as the organizations elsewhere in the County.

Other Results

Economic Development: How did the BLTV contribute to the community's economic interests?

- Expansion of business opportunities was the community's top priority, and over 1 in 5 applications implemented at the BLTV came from the Business Support Cluster.
- Almost 2,000 people received training in computer skills.
- The Small Business Development Centers were among the most effective users of the BLTV.
- A way was demonstrated to link a network activity (the Mosley book lecture) to the local material economy (a temporary market established at the BLTV to sell Mosley's autographed books). This phenomenon had great promise for expansion.

Universal Service: What improvement was there in access to network technology?

- There were over 6,000 visits to the BLTV, almost all of them to use technology in some form. The kiosks and the Computer Center were the most popular, in part because they were the easiest to use.
- Network transmission services and network access technologies were available at far below market rates.
- Virtually all the participating local organizations (referred to as "Community Partners") were relatively small, under-capitalized organizations for whom the BLTV provided resources that would have otherwise been unavailable.

Participation: How was the community involved?

- Over 150 community leaders attended a planning meeting to give direction to the Blue Line TeleVillage.

- Twenty-one community leaders participated on an Advisory Board that guided the development of the TeleVillage. About half of them became actively involved in the operations phase.
- The BLTV started the process of becoming a community meeting place -- the Compton Chamber of Commerce held a mixer at the BLTV, the Inner City Computer Society regularly held meetings and training sessions there, children's services organizations used the Computer Center, and kids gathered there after school and over holidays.

Funding and Administration

Funding: How much did the demonstration cost and how was it funded?

The project cost \$659,000, and was paid for by a \$559,000 grant from the 1993-94 Transportation Improvement Program or TIP (involving the Intermodal Surface Transportation Efficiency Act and Congestion Management and Air Quality funds with the local match from Proposition C), with a supplemental grant of \$100,000 from the Federal Transit Administration.

From the original TIP grant, the Drew Team received \$288,995 for planning, development and implementation, Drew EDC received an additional \$99,700 to operate the facility during the 12 month demonstration period, equipment was leased for \$42,200, site improvements cost \$82,000, furniture was \$14,700, space lease paid to the City of Compton was \$18,700, and the community meeting cost \$8,800.

The \$100,000 FTA grant was used to support marketing (\$13,200), training community leaders in the possibilities of the facility (\$12,000), data collection (\$12,000), supplementary training for community members (\$46,800), and project management (\$16,000).

The MTA also received compensation from Caltrans for some of its administrative costs.

Contractors: Who did the Drew Team include?

The Drew Economic Development Corporation, a community based non-profit organization from Compton, and the economic development arm of the King-Drew University/Medical Center won a competitive bid process to develop the prototype TeleVillage. There were two subcontractors – Siembab Planning Associates (the originator of the concept and author of the 1992 Metro Net Report for the Joint Development Department of the LACTC), and Community Resources (with expertise in community organizing and outreach). Collectively, these entities were referred to as the Drew Team.

MTA : What was its role?

The Los Angeles County Transportation Commission (LACTC) awarded itself a \$554,000 grant under the 1993-94 Transportation Improvement Program (TIP). By the time the project was initiated in September, 1994, the LACTC had been merged with the Southern California Rapid Transit District into the newly formed MTA. The MTA contracted for the project's planning, development and implementation phases, oversaw those contracts and the original grant, conducted the appropriate procurement processes for site improvements and equipment, provided technical support for the information technology, provided construction management assistance for the site improvements, and assisted with the marketing effort. Perhaps more significantly, the MTA took the leadership for introducing and developing a new idea.

Dates: What was the schedule?

The LACTC received the TIP grant in July, 1993 and issued an RFP for consulting services in September, 1993 with interviews held in December, 1993. The formation of the MTA slowed down the process and a contract was not signed with the Drew Team until September, 1994, at which time project planning began. The community workshop was held in February, 1995 after which a hiatus occurred in order to redefine roles and amend the Drew contract. Planning resumed around August, 1995. Physical development of the site began in December, 1995 with site improvements and technology installation. The facility opened in March, 1996 for a 3 month "beta test" which culminated in a community open house in June, 1996. The 12 month demonstration period ended February 28, 1997.

Participation: How was the public involved?

The MTA, assisted by the Drew Team, held a community design workshop in February, 1995 that was attended by approximately 150 community leaders. The MTA produced a 12 minute video tape documenting this workshop. A 21 member Advisory Committee was formed out of this workshop and members actively participated in a variety of sub-committees through the open house held in June, 1996.

Contributors: In addition to funding agencies, which organizations provided important resources?

The County of Los Angeles, City of Compton, and Pacific Bell's Education First Program made significant contributions.

Lessons Learned

A demonstration project provides two kinds of payoffs. The first is progress toward improved conditions. The second, and perhaps most important, is lessons learned, from how-to-do-it to the feasibility of the design.

Learning: What were the significant lessons?

1. The concept was feasible to implement -- a TeleVillage could be established for a little more than the planned budget and a little longer than the time expected. The prototype cost about \$650,000. It took about 18 months to plan the project and develop the facility and 12 months to operate as a demonstration. As planned, the TeleVillage was able to combine community economic benefits and public technology access within a mobility strategy.
2. Organizational innovation was the engine of change but, despite the high visibility of the “information superhighway,” most organizations had little experience with network technology. Most organizations approached by the Drew Team were capable only of considering a tactical trial of network technology. For them, a network strategy remains a long way off. Nine organizations were approached for every one organization actually implementing an application at the BLTV.
3. Organizational involvement with network technologies could be modeled according to a 10 step ladder of participation (for example; Step 1 Attempt to Contact, Step 4 Identify Possible Applications, Step 9 Develop Routine Use). Progress up the ladder was sporadic and the Drew Team had to help identify and remove the barriers that slowed progress – or provide information to those inside people shepherding the innovation. It is incorrect to assume that once an organization became engaged in the demonstration that its internal initiative independently carried that organization to progressively higher steps on the ladder. Barriers to participation included:
 - Lack potential participant’s access to technology.
 - Large bureaucracies that require a search for the right department and the right person, and where the right person is often over-committed or inflexible.
 - Institutional rules that limit the flexibility of an organization
 - Timing - windows of opportunity are limited by staff turnover, crisis, budget cuts, new assignments and so forth.
 - Time – The amount of time needed for an innovation trial varies widely among organizations.
 - Lack of resources.
 - Organizational culture.
4. A number of practical matters were learned that should help reduce the time and costs required for subsequent TeleVillages. These include:

- The best performing organizations outside of the service area were small and flexible, offering informal products, and with managers who were empowered to make and keep commitments. Within the service area, the best performing organizations were either large, technologically sophisticated organizations who understood how the BLTV could help satisfy their communication needs, or small organizations with constituents who needed computer access.
 - Things don't always work as planned and the plan had to be continuously adjusted as part of implementation.
 - A substantial marketing effort was needed by the BLTV and one was not originally budgeted.
 - Some organizations are concerned with whether their constituents are ready for a network relationship, especially with regards to a low income community because of the historically low levels of information technology ownership. It appeared at the BLTV that organizations had more trouble progressing up the Ladder of Participation than individual consumers had accepting network mediated experiences and services.
 - Organizations differ in their ability to capture the productivity benefits of participation. A video conference specifically for a remote audience captures mobility benefits. A video conference with an in-person audience as well as a remote audience captures mobility and productivity benefits.
5. Members were both dispersed and concentrated. The 52% of the membership that was concentrated in the 3 adjacent zip codes demonstrated that the BLTV provided the physical proximity that is key to a "livable community." The dispersal of members into 91 zip codes suggests that citizens throughout the southern portion of Los Angeles County were interested in joining a TeleVillage.
 6. Public access computing is the easiest service to offer but this service represents only a single urban function. Its mobility benefits depend on many more organizations changing their business practices and converting their products and services to a digital medium so that more of the activities that cause people to travel can be found on the internet, e.g., retailing, medical services, education, employee telecommuting, and government services.
 7. Pacific Bell's Education First Program has been terminated since the completion of the BLTV Demonstration, and free or very low cost transmission service is not readily available elsewhere. A fiber optic network in the MTA's rights-of-way is one option for providing transmission services to future TeleVillages. However, the MTA designed and built its fiber networks in a

time before uses ancillary to rail operations were considered. Without design changes, even the fiber network on routes that have yet to be built will not be able to provide service to future TeleVillages located at rail stations. The MTA has, in the past, had the option of forming a partnership with a private network developer to create a fiber backbone that would be flexible enough to serve both rail and non-rail objectives

8. A TeleVillage represents a quantum leap difference in business practices for both organizations and individual users. The prototype should have been planned for at least a 3 year development period. It may take 3 years for 25% of the households and businesses to use the BLTV for 10% of their needs for broadband communications.
9. Marketing seemed most successful when it focused on a particular element or activity at the BLTV (such as the author's lecture) rather than on the TeleVillage in general. Although much more marketing experience is required, it seems clear that with such a new concept, most potential visitors have no idea what to expect at a TeleVillage. Yet they could relate to specific opportunities such as internet access or a telework office.

Recommendations

1. Ask the City of Compton, the new owner and operator of the BLTV, to complete the work in progress, increase the number of urban functions offered, and continue the documentation presented in the Drew Team's Final Report. In order to increase the ability of the BLTV to reduce automobile trips and encourage public transit and walking trips, it is recommended that the City of Compton consider physically integrating the Civic Center, shopping center and the transit center and marketing the whole area as the Compton TeleVillage.
2. Establish a total of 5 to 7 additional, widely distributed TeleVillages in order to give many more people network access. The larger potential audience for network mediated urban functions will result in an easier organizational recruitment. Ensure that the definition and parameters established for the prototype are closely followed in future TeleVillage projects. Simply operating a computer center at a rail station is substantially less significant than fostering the spatial re-organization of urban functions to transit centers
3. In conjunction with more TeleVillages, the MTA should consider ways that it can improve its own position on the Ladder of Participation. This could include the following:
 - Acquire access to an audio bridge, equip all meeting rooms with speaker phones, encourage employees to conduct meetings with outside personnel as audio conferences.
 - Establish a video conference center in the Gateway Building for use by MTA, other government agencies and private businesses.

- Decentralize the MTA work force to create an anchor client for the Telework Center in subsequent TeleVillages.
 - Develop a circuit rider capability to create a presence at each subsequent TeleVillage.
 - Develop a corporate level network strategy as originally proposed in the 1992 Metro Net Report.
 - Through research and computer models, evaluate the potential contribution of TeleVillages to mobility so that, if justified, they can be formally included in the MTA's long range plan and the Regional Transportation Plan.
4. Inform other organizations in the County about MTA plans for future TeleVillages. Since TeleVillages can be developed using redevelopment funds, CDBG funds, and public-private joint ventures, cities can be catalysts if properly informed about the options. In addition, public and private organizations will be able to proceed with their electronic service delivery plans knowing that there will be places for public access to these services. This will further the migration of urban functions onto networks where they can be easily re-located to transit centers.
 5. The MTA should use its position as the lead public transit provider for the County to recruit other organizations to participate in future TeleVillages. This recruitment should include the County and City of Los Angeles, Los Angeles Unified School District, California State Universities, USC, UCLA, State of California, large employers and umbrella organizations such as the Federal Executive Board, Southern California Association of Governments, Building Owners and Managers Association and the League of California Cities.
 6. A County-wide organization to perform the applications development function for all TeleVillages that was provided by the Drew Team for the BLTV needs to be funded.
 7. Find a solution for network transmission services to TeleVillages. One option would be to revisit the MTA's fiber leasing program.
 8. Future start-up funding should cover at least 2 years and preferably 3 years of operations.
 9. In order to find a long run funding solution for TeleVillages, capitalize on the multiple goals served by a TeleVillage and establish a system that receives funds from a variety of sources. One option to establish a "Network Technology Trust Fund" that could receive funds from ISTEAs, Proposition C, a future gas tax, land developer fees, economic development grants, universal telecommunications service fund, spectrum auction percentage and so forth.

10. Although the owner and operator of a TeleVillage remains something of a question for experimentation, a non-profit corporation – either already in the community with relevant experience or specifically incorporated for the purpose – was recommended by the Drew Team in 1997.

Awards Won

Outstanding Innovation in Telework, International Telework Association, 1997

Semi-Finalist, ATT Telecollaboration Award, National Information Infrastructure Awards, 1996

Best Practices, Tech Expo, 1996