

January 8, 2004

Honorable Mayor and Members of
the Hermosa Beach City Council

Regular meeting of
January 13, 2004

**STATUS REPORT ON WIFI/BROADBAND SYSTEM
INSTALLATION BY THE CITY ON A PHASED APPROACH**

Recommendation:

1. That the City Council review and approve the proposal to install a Wifi (wireless fidelity-802.11a/g) Broadband System network in the City on a phased approach.
2. Direct staff to return with agreements for required purchases and installation services.

Background:

The City Council received a presentation initiated by Mayor Keegan at your meeting of July 8, 2003 from WFI Inc. concerning their proposal to install a wireless network that would provide citywide coverage when completely deployed. The concept that was presented in July included an initial wifi/broadband deployment with the area around City Hall/Community Center and the area west down Pier Avenue to the beach. Pursuant to City Council direction, staff worked with WFI Inc. and several other companies to determine whether or not a cost effective wifi/broadband system could be successfully deployed on a citywide basis. One thing that we have found from this research effort is that this technology is far reaching and is moving very quickly in terms of offering more and more cost effective solutions. There are a number of uses that this technology would allow the various City departments to use to improve services and communications, as well as data collection and transmission from the field. You may have seen news reports of the City of Cerritos where they have issued a franchise to a company to build a wireless broadband system for the entire city. There are several shopping centers, convention facilities, business centers and airports that have installed these systems with great success.

The concept that was presented to the City Council in July was that the Wifi/broadband system signal would be provided without a charge to the user. In effect, this would become, once fully deployed, a service offered by the City (through third party contracts) to our residents, business, and visitors, should they wish to use it. The design of the wifi system as proposed would provide "roof top" coverage. What this means is that the wifi signal would be delivered throughout the city and could be accessed by residential or business users either with their existing equipment or by purchasing a wifi card/antenna for their existing computer. The city would maintain a list of qualified installers or stores that have the cards/antennas available. The city would be able to verify that wifi signal (internet path) is available where deployed but would not be involved in any other aspect of the system.

The first phase would be to install a system in and around the City Hall and Community Center. This first installation will serve as a test area for the signal strength and the related backhaul equipment that will serve the entire system once fully deployed to make sure that any bugs are worked out before proceeding to other areas. The coverage area for this first phase will include Pier Ave west towards the beach and serve the residential areas to the north and south and

somewhat to the east. The precise area of the signal coverage will be determined on installation. It is really quite simple installation and not very difficult to do. The wifi system signal network is composed of 10 wireless nodes that will be installed on either buildings or attached to street light pole arms. The rest of the equipment will be located in City Hall where the Internet connection will be made. The total budget for the equipment and services for the Phase I installation is \$25,000. A more detailed listing of the services, equipment and costs will be provided once staff is directed to proceed with the installation. The cost of extending the Wifi/broadband signal to the entire city would be somewhere between \$75,000 and \$100,000. Depending on the actual prices that we get as a result of the test area this price could be quite different. The roll out of the entire system would only occur after the wifi system has been working and we are confident that we have a successful model.

The operating costs (additional bandwidth) for the Phase I deployment will increase our telephone charges by about \$1000 per month. Some of this may be offset by combining the two T1 lines that the City now has into one T3 line. The other costs after start up would include monitoring which will run about \$500 per month. Third party vendor under contract with the City would provide all of these services.

Access to the wifi/broadband system would be via a registration page that would collect the user information and provide access to the Internet. This same page in the future could be a source of revenue to cover the ongoing operation of the system should the City Council wish to do so.

This proposal represents an opportunity to provide broadband internet access basically purchased on a group basis. The system, as staff has learned, is fairly simple in design, can be expanded once the test phase has been completed, offers some opportunity for cost recovery through sale of ads or charges and certainly would represent a cost avoidance for those Hermosa Beach residents and business that decided to use the system.

Respectfully submitted,

Stephen R. Burrell
City Manager