

Staff Report

City Wi-Fi Feasibility Study

December 11, 2007

Based on direction from City Council relating to meeting the goal to facilitate one community through both physical and relationship connections, City staff has been gathering information on options for wireless Internet service in the City of Ames. Last year the City Council budgeted \$25,000 to conduct a wireless study to review the following:

- The feasibility and options for implementing a city-wide Wi-Fi system.
- The cost to implement and operate a series of Wi-Fi hot spots in public locations in the City.

City staff prepared a Request for Proposal and entered into an agreement with Columbia Telecommunications Corporation to conduct the study. The study will be presented at the City Council roundtable on December 11, 2007. Based on results of the study, staff recommendations are summarized below.

City-Wide Wi-Fi

Staff recommends that the City not pursue the implementation of a city-wide Wi-Fi system.

Deployment of city-wide wireless will require a substantial capital investment and operating costs. Market penetration for wired broadband Internet service in Ames is high, and business models would make recovering capital and operating costs, or even just operating costs through fees, a risky venture. Several planned ventures in other cities for city-wide wireless systems have been scrapped recently and companies offering public/private partnerships to establish city-wide wireless (primarily Earthlink) are backing out of deals and not moving forward with new arrangements. The business models are simply not working out.

An August 2007 study completed by the Government Finance Officers Association's Research and Consulting Center recommends that the possibility for success for city-wide wireless is limited, unless the following factors exist:

1. A clear business justification.
2. Significant and verifiable consumer demand.
3. Lack of private sector competition.
4. The City is prepared for technological uncertainty that may render capital investment in a Wi-Fi network obsolete.

We believe that none of these factors exist in the City of Ames.

Series of Wi-Fi Hot Spots In Public Places

Staff recommends that the City Council consider options for implementation of a series of Wi-Fi hot spots, funded by the City, with Wi-Fi access provided free of charge. We have prepared options based on use of existing City infrastructure and review of expected public use in different locations. Any option that the Council chooses to pursue can be later expanded or adjusted in future years. In order to prioritize locations, the following scale was used:

Priority	Description
A	WiFi supports benefits beyond public access
B	Year round traffic, facilities sufficient to allow for laptop use
C	Seasonal traffic, facilities sufficient to allow for laptop use
D	Seasonal traffic, facilities might be sufficient to allow for laptop use

Option 1 - Implement Priority Locations

Implement Wi-Fi hotspots in locations with existing or planned City network infrastructure and all the locations identified as having an A – D priority. After completion of Step 1, Steps 2 and 3 can be implemented independently in phases.

Step	Site	Priority	Implementation Costs	Annual Operating Costs
1	Base Infrastructure	A	\$30,800	\$11,975
Phase 1				
2	City Hall	A	\$39,835	\$32,270
	Ice Arena	B		
	Community Center	A		
	Municipal Pool	B		
	Aquatic Center	B		
Subtotal			\$70,635	\$44,245
Phase 2				
3	Campus Town Court	A	\$150,260	\$27,705
	Brookside Park	B		
	Tom Evans Plaza	B		
	Country Gables Park	B		
	Ada Hayden Heritage Park	C		
	Ames Youth Sports Complex	C		
	Bandshell Park	C		
	Emma McCarthy Lee Park	C		
	Moore Memorial Park	C		
	Daley Park and Greenbelt	D		
	Inis Grove Park	D		
Total			\$220,895	\$71,950

Option 2 - Implement a Pilot Project

Implement Wi-Fi hotspots in locations with existing or planned City network infrastructure and four pilot locations. These are primarily indoor locations used year round, have large public use, or would test the technology. The pilot locations would test the feasibility and public utilization of Wi-Fi hot spots before expanding the project.

Step	Site	Priority	Implementation Costs	Annual Operating Costs
1	Base Infrastructure	A	\$30,800	\$11,975
2	City Hall	A	\$39,835	\$32,270
	Ice Arena	B		
	Community Center	A		
	Municipal Pool	B		
	Aquatic Center	B		
3	Tom Evans	B	\$29,610	\$11,913
	Brookside Park	B		
	Campus Town Court	A		
	Ames Youth Sports Complex	C		
Total			\$100,245	\$56,158

Parks and Recreation Director, Nancy Carroll, assisted in reviewing park locations to identify areas of high use that are spread throughout the community.

Given the uncertainty of the popularity of primarily outdoor use, staff recommends Option 2 – Implementation Of A Pilot Project.