Building Grand Island’s WiFI Network

A Recommendation Report from the Municipal Wireless Task Force

Prepared by Student Name

# Task Force Members

The following citizens, elected officials, and employees of Grand Island are responsible for this report:

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# Summary

In this report, the Municipal Wireless Task Force recommends implementing a citywide wireless network. The network should allow for low-cost, universal access within the city limits. Encouraging competition among broadband providers will be key to the success of this network.

# Building a Network

Across the country, local governments are in the midst of establishing municipal wireless (or WiFi) networks, with the goal of providing free or inexpensive Internet access to all residents. Some studies suggest that by 2018, 95% of towns and cities will have established municipal WiFi networks.

After studying the issue extensively, we believe that a municipal WiFi network in Grand Island will improve worker productivity across the economic spectrum. We also believe such a network will help attract businesses with the promise of a technologically savvy worker force. Furthermore, an easy-to-access network will improve life generally for our citizens, by making the Internet available to all for minimal cost.

### Low Cost

In order to be economically self-sustaining, the network must be widely adopted by all residents, regardless of income, and be available in every area of the city, including homes, offices, parks, and restaurants. To ensure this degree of access, a typical municipal WiFi network consists of a mesh of access points that allow continuous coverage throughout the city. (An access point is a radio transmitter that communicates with wireless devices such as laptops.) Residents will have to subscribe to the service, but assuming a widespread adoption of the service, we estimate prices as low as $10 a month per household. This is far less expensive than the $40 a month many residents now pay for DSL or cable Internet connections.

The WiFi network we are proposing would provide a wireless signal only up to the external wall of any building. The resident or business owner would then be responsible for propagating the signal throughout the building, whether by an internal wireless access point or traditional network cable. Note that this is similar to the way the standard telephone network works. The telephone company provides service up to the exterior wall of the house. The home owner or business is then free to wire the house for telephone service any way he or she chooses.

## Network Management

We recommend hiring a third party networking corporation to manage the construction and operation of the wireless network. This networking corporation would require access to the city infrastructure—such as street light poles, electrical conduits, and city buildings—in order to construct the network. Once construction is complete, the city can sell broadband rights based on competitive bids to a wide range of broadband providers.

# What’s Next?

We recommend issuing a Request for Proposal (RFP) to all parties interested in constructing and managing the Grand Island WiFi network. All proposals should specify the type and quantity of network access points, the proposed location of all radio transmitters, and details on the network protocols that will be used. We should also require a six-month pilot program that allows the city to test a scaled-down version of the proposed network before we sign-off on a final contract.