LawrenceFreenet
A Community Connection

OFFICIAL PROPOSAL
Radio Installation on Massachusetts St. Traffic Control Signals
December 22, 2006

P.O. Box 3532, Lawrence, Kansas 66046
(785) 331-2086
http://www.lawrencefreenet.org

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Initial Proposal Criteria

To provide free service to customers of downtown merchants, Lawrence Freenet will need access to radio installation locations that are reasonably close to ground level and free of metal and stone obstructions.

The method other communities have used to solve this problem is the attachment of radio equipment on light pole luminar arms. Though Freenet plans to use this approach in other parts of the city, the historic nature of downtown Lawrence makes this approach undesirable.

As a technology oriented organization, Lawrence Freenet has come up with a solution to this problem that should be acceptable to the City, Historic Resources and Freenet users.

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Downtown Light Pole Radio Installations

Locations

Figure 1: Proposed Installation Locations

In the near future, Lawrence Freenet would like to begin installing radio equipment on the corner light poles in the downtown area. The selected poles for the first phase of the installation are on the corners of 7th & Mass, 8th & Mass, 9th & Mass, 10th & Mass and 11th & Mass. These five installations will make use of the existing light poles and electrical systems. Figure 2 shows a CADD drawing of the proposed installation.

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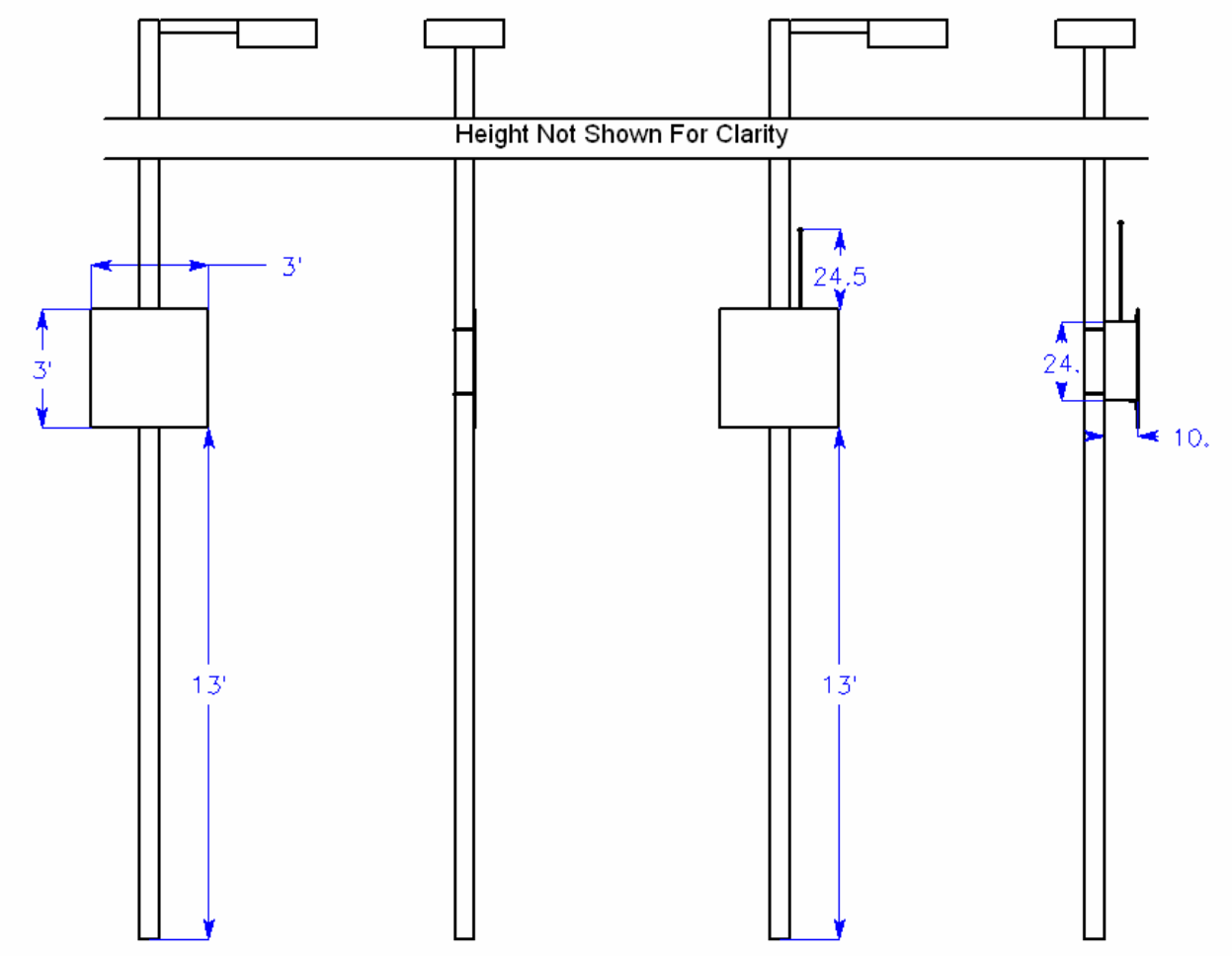

Figure 2 Downtown Pole Install

Appearance

To provide WiFi service to downtown patrons, Freenet will need to mount a small 2’ by 2’ water tight enclosure behind the “No U-Turn” signs on the traffic control signal poles downtown. These boxes will have a 30” antenna mounted on them which will provide the local area with WiFi service.

By mounting the boxes behind the existing signs, the overall visual impact of the installations will be minimized.

Figure 3 Digital Enhancement Showing Installation Impact (Antenna Installation On Left)

The following figures show the sizes of the various portions of the installation.

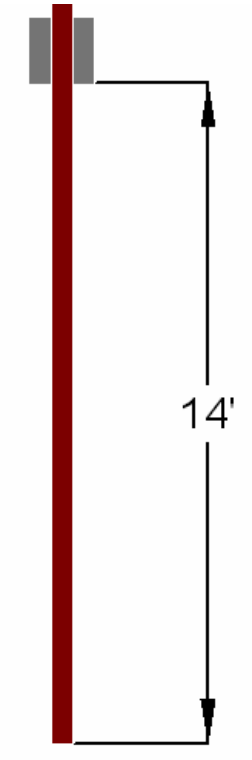

Figure 4 Approximate Enclosure Mounting Height

Since the poles at these locations are not powered during the day, the radio equipment will be fitted with a rechargeable battery, which will charge during the night and discharge during the day.

This battery and other supporting electrical equipment will be installed on the light pole in a 18" NEMA 3R enclosure located approximately 10' from the ground. This fits with existing traffic and electrical installations in the downtown area as shown in Figure 5.

Figure 5 Large Nema Enclosure at 7th & Mass

The electrical equipment is connected to the existing wiring using taps or other industry standard methods. Figure 6 shows the proposed electrical system layout.

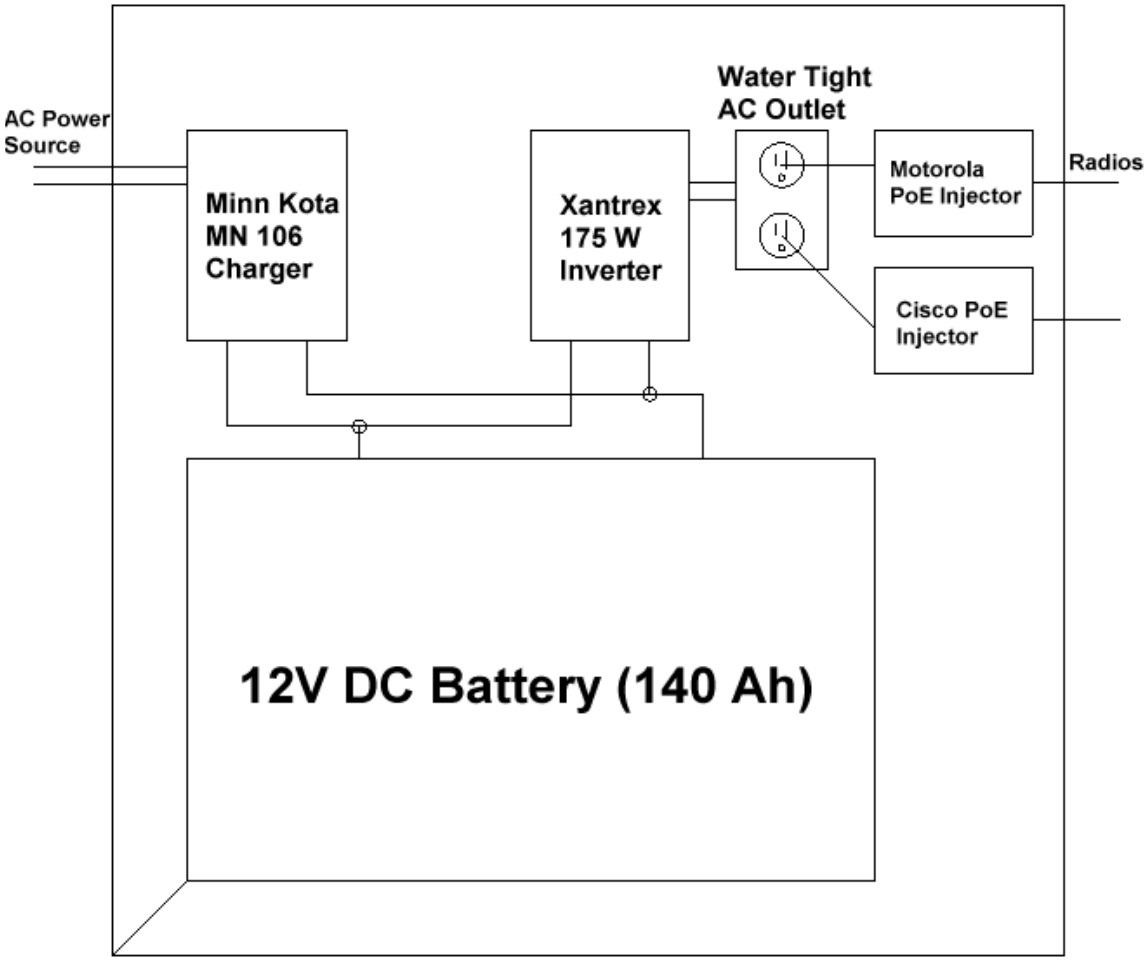

Figure 6 Electrical System Layout

To accommodate the required wiring without impacting the general appearance, all wiring will be resident within the pole.

We would like to begin installing equipment within the next several weeks and are eager to begin serving Downtown Lawrence.