

Suggested Alternative Configuration for Nest Camera (Revised Jan 28, 2010)

Ken Schneider

Many existing nest camera applications are located in remote areas without readily accessible electrical power and broadband. These necessitate use of solar generation and battery storage of electrical power. Signals from such cameras must be boosted and transmitted over distances that require microwave technology. Such technology can involve very high equipment, operating and maintenance costs.

The Pembroke Pines Bald Eagle nest location presents an opportunity to utilize a far simpler and less costly hardware arrangement. If either Comcast/NBC or FP&L (or both) were willing to underwrite the provision of service lines, the cost to their companies would be marginal, as they could accomplish the tasks using existing workforce and equipment.

As was done by the USFWS in West Virginia, the Pembroke Pines camera could be mounted on the nest tree, only a few feet from the subjects. This approach obviates the need for, and expense of, a separate mounting platform. If the nest tree sways in the wind, the fixed camera will maintain alignment with the nest. If Florida FWC officially refuses to permit camera placement on the nest tree, the only alternative is to install a very tall mounting pole on City of Pembroke Pines property..

Our choices appear to be limited to either :

- appeal to FWC to obtain permission for mounting the camera on the tree, or
- install a pole into the ground, adjacent to the nest tree

The latter approach, aside from being more expensive, causes much more disturbance to the eagles' habitat, as a path must be clear-cut for heavy machinery, and a permanent structure must be created. I suggest that we officially approach FWC and present justification for a tree-mounted camera. There are several limbs that are quite clear and would provide an optimal view of the nest without disrupting any vegetation at all. I am frankly concerned about the feasibility of sinking a 40 foot pole in that property.

There is an unused metal or concrete pole already in place (See **Photo #2**, below) on the utility easement just inside City property. If it is available for use, it could serve as the platform for necessary equipment (cable and electrical service junction, modem, encoding computer and camera power supply) that could be housed in a secure weatherproof enclosure, readily accessible for servicing.

FP&L distribution lines are already located on the easement, on City of Pembroke Pines property. A step-down transformer is already installed on the power pole about 130 feet from and directly in front of the nest (see **Photo #1** below). As shown in the photo, a junction box or switch housing, and a 220 volt service supply line may already be available on the pole. Comcast cable does provide service to properties just across Pines Boulevard, as well as subdivisions at the NE and SE corners of Pines and 208th Avenue, about 500 feet from the nest site. Indeed, there are two communications lines running below the power lines directly in front of the nest. Are they Comcast or AT&T cables? We must determine ownership and whether a broadband service line can be connected to one of them.

Both Comcast/NBC and FP&L could realize a large return on an investment in the eagle camera project. They would incur minimal resource expenditures, but provide a highly visible service to the community. The web camera image could be displayed on a company Web page that will receive national exposure. A Google search of <“eagle nest” web camera > results in 2,820 hits, with links to several dozen nest cameras within the first few pages.

Among sponsors of these cameras are power companies, TV stations, non-profit associations/foundations, state and federal wildlife and environmental-related agencies, a private Web hosting company, and a private security monitoring company. Publicists will be interested in the fact that, during the past twelve months, our local Eagle Nest Watch Forum has attracted almost 50,000 views. <<http://www.rosyfinch.com/BaldEagleNest.html>>.

Here is a simplified diagram of a suggested configuration, for your consideration, along with photos from the nest site.

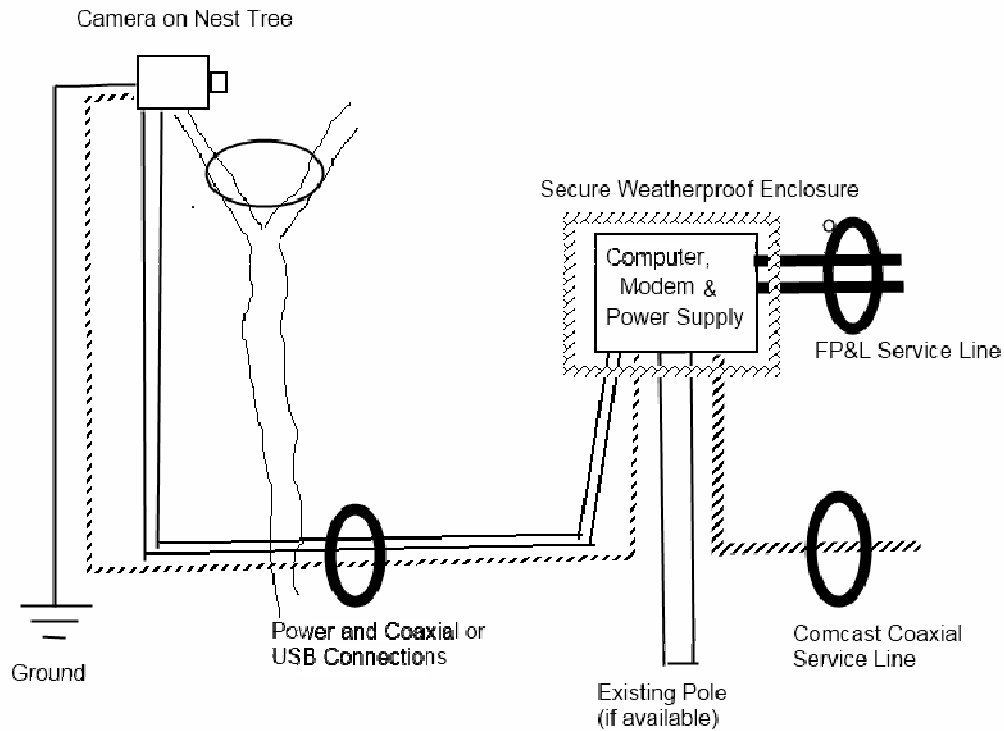


Photo #1 This transformer is located on the concrete power pole directly in front of the nest. The pole is approximately 130 feet from the nest. About 5 feet to the SE of base of this pole is smaller concrete or metal post/pole, about 8-10 feet high, that contains a junction box or switch housing, with a protruding wooden switch handle. An electrical conduit runs up the smaller pole from underground. It appears that this transformer may be stepping down power to the junction box on the smaller pole. If 220 volt supply is available at this point, the pole would provide a convenient platform for the weatherproof control box that could join the electrical power and the cable connections to the computer, modem, and camera power supply.



Photo #2 This is a composite photo showing the smaller pole that is adjacent to the power pole in front of the eagle nest. It is about 8-10 feet tall. Note the wooden switch handle protruding to the left, and the electrical conduit emerging from underground. This structure is located on City of Pembroke Pines property. It looks quite old, perhaps a remnant from the former owner of the property. The fact that the power pole contains a transformer suggests that a service line is (or was) in place.

December 15, 2009-

Ken,

FYI, FWC will not allow the camera to be placed in the nest tree. My permit specifies that the camera and mount had to be at least 20 feet distant and in a separate location.

Lynda White
EagleWatch Coordinator

=====

Hi, Ken,

I mentioned this possible hitch in your plans because your revised concept states:

"As is evident from the experience of the USFWS in West Virginia, the Pembroke Pines camera may be mounted on the nest tree, only a few feet from the subjects. This approach obviates the need for a separate mounting platform."

I don't want you to spend a lot of time and effort on a concept that won't fly with FWC, pardon the pun. Our first eagle cam, back in 1999, was mounted in the nest tree, about ten feet from the nest. FWC later decided that was too dangerous and required placement outside the tree.

Lynda White
EagleWatch Coordinator