

# BUILDING OSPREY NEST PLATFORMS:

## Principals, placement, and select designs

The proliferation of nesting platforms across the US has been instrumental in helping ospreys recover from near-extinction in the Twentieth Century and welcoming them back to the northeast. Nesting platforms provide safe places for ospreys to raise their young and have proven to be more stable than most natural nesting sites. To insure that a breeding pair adopts a newly built platform, it must be built properly and located at a site conducive to ospreys. Please keep the following considerations in mind when building and erecting an osprey nest platform:

- **Proximity to Water**—site the platform within a few miles of a water body having shallow areas and plenty of uncontaminated fish.
- **Build in the Open**—erect the platform in an open area with clear views of the surroundings. Trees too close to a nest may hide predatory Great Horned Owls.
- **Make it Strong**—a nest is reused year after year and generation after generation with new sticks being added continually. An older nest may weight 300 pounds or more necessitating that the underlying structure is able to support such weights.
- **Prevent Predation**—single pole structures are preferable for building platforms on land, while multiple poles are used on ice. Attach a predator guard, such as a sleeve of aluminum flashing, around the pole(s) to stop raccoons and other climbing predators from reaching the nest.
- **Avoid Eagles**—if there is an active Bald Eagle nest in the area, place the nest platform at least 0.25 miles away from it. Eagles are an osprey's nemesis as they frequently steal their fish, harassing them, and sometimes kill osprey young.
- **Predatory Great Horned Owls**—steal osprey eggs and nestlings. Locate osprey nest platforms in the open at least 0.25 miles away from tall trees and known Great Horned Owl nests.
- **Provide Perches**— attach one or two 2" x 4" boards angled upwards to the sides of the nest box for perches from which the parents can guard the nest.
- **Build Early**—erect new nest platforms by March 1st prior to the arrival of the ospreys in late March to mid April.
- **Seed Nest**—place a small pile of sticks in the new nest box to stimulate the ospreys to nest in it. If the sticks are added months in advance, tie them down with zip ties to prevent them from blowing away. Never use twine or fishing line in a nest, as they are strangulation hazards.
- **Minimal Disturbance**—choose a site with minimal disturbances. However, ospreys largely ignore boats, trains, and automobile traffic provided they do not stop to harass the birds. Bird watchers are tolerated if they stay a respectable distance away from the nest. If disturbed, these raptors respond by crying, cackling, flying around the nest, and sometimes dive-bombing the observer. As the season progresses, some ospreys relax and acclimate to visitors, especially as the chicks mature, allowing observers to approach at closer distances. Listen to the ospreys to learn how close you can approach.
- **Fireworks**—sound like gunshot and disturb many birds, as they should. Locate fireworks

in areas away from osprey nests and other important bird areas.

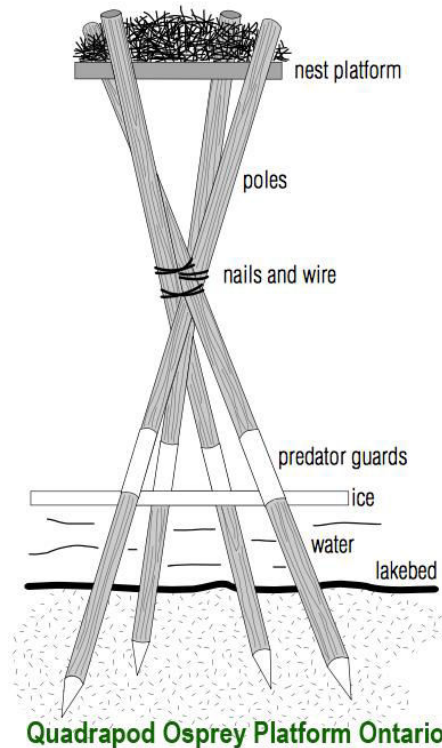
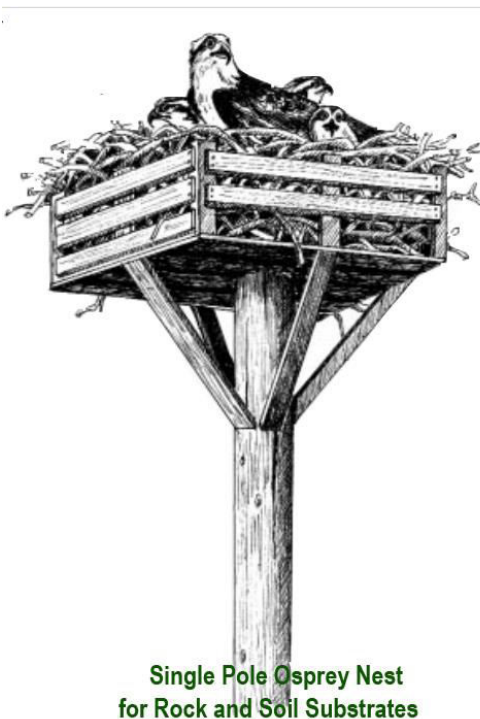
- **Permission to Build**—ask for the landowner's permission before installing a nest platform. For state-owned lands, contact the NYS Department of Environmental Conservation to get special use permits if necessary.

- **Colony Formation**—ospreys tend to nest alone or in loose groups. Each spring, young ospreys returning to breed for the first time search for suitable nest sites usually within a few miles of their birthplace. In areas with plentiful food, nesting platforms can be placed within 300 feet of each other to encourage loose colonies. Observers speculate that hunting in groups may improve the osprey's hunting efficiency.

- **Report Your Nest Platform**—if you build an osprey nest platform, please notify Candace Cornell at <cec222@gmail.com> and include the address where the nest is located and the GPS coordinates or a map (using Google Maps), if possible. This information will be part of an ongoing regional osprey database used for conservation purposes. Your name and address will not be made possible.

Thank you for help welcoming ospreys to the Finger Lakes.

*Candace E. Cornell*  
Friends of Salt Point  
[cec222@gmail.com](mailto:cec222@gmail.com)



## Plans for building osprey nest platforms

The following is an excerpt from *Enhancing Raptor Populations – A Techniques Manual*, published by The Peregrine Fund. The book is available for [purchase in our online store](#).

Raptors that use open nests can also be induced to use artificial nests for the purpose of augmenting their populations. A number of these species have suffered declining populations at least partly due to loss of nesting places. **Ospreys** (*Pandion haliaetus*) received the most attention in terms of artificial nests, and building artificial nests for them was among the earliest management strategies designed to help them recover from population declines (Henny, 1977b). Techniques to provide artificial nests include killing live trees to create snags attractive to Ospreys (Gliński et al., 1983) and topping live trees; Airola and Shubert (1981) cut the tops off trees with trunks more than 35 cm (14 in) in diameter and built platforms on the top (Fig. 6C). See some examples of other Osprey nest platforms in Figs. 5-8. Construction details for a variety of Osprey nest platforms to be used in trees, on existing poles or towers, and self-standing nest platforms are given in Ewins (1994). The use of such platforms has benefitted Ospreys by increasing the breeding population, decreasing nestling mortality, and increasing fledging rates (Rhodes, 1972; Postupalsky, 1978; Houston and Scott, 1992).

Ewins (1994) made the following recommendations regarding placement of Osprey nest platforms:

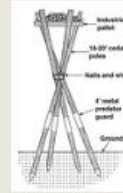
1. Place them within 50 m (165 ft) of water preferably 1-2 m (3-6 ft) deep.
2. Use small rock islets, if possible, for predator protection.
3. Put structures in the highest trees available or on poles more than 10 m (30 m) from the nearest trees because Ospreys need room to maneuver in flight.
4. Place structures at least 100 m (330 ft) from houses or heavily traveled roads.
5. If platforms are on poles on dry ground, use an anti-predator guard on the pole.
6. Space platforms at least 200 m (660 ft) apart.
7. Avoid areas with lots of Bald Eagles (*Haliaeetus leucocephalus*).
8. Contact the local wildlife agency before erecting platforms to make sure that Ospreys will not interfere with sensitive wildlife.

Construction notes from Ewins (1994) include:

1. Cedar is the best wood to use. Avoid pressure treated wood because it can leach preservatives into water courses.
2. Use galvanized nails, bolts, and wire. Pre-drill holes to avoid splitting wood.
3. If no tree perches are located near the platform, nail a length of wood to the platform sticking out 1 m (3 ft) for a perch.
4. If raccoons (*Procyon lotor*) are in the vicinity, it is essential to firmly wrap and nail a 1.5-2 m (5-6 ft) length of sheet metal (aluminum, steel, or tin) around the pole to prevent raccoons from climbing to the platform.

### Osprey nest platform designs

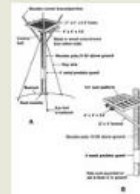
Click any image to enlarge.



Quadrapod Osprey nest platform. Designed for stability in water that freezes (modified from Ewins, 1994).



U.S. Bureau of Reclamation design Osprey nest platform (modified from Ewins, 1994).

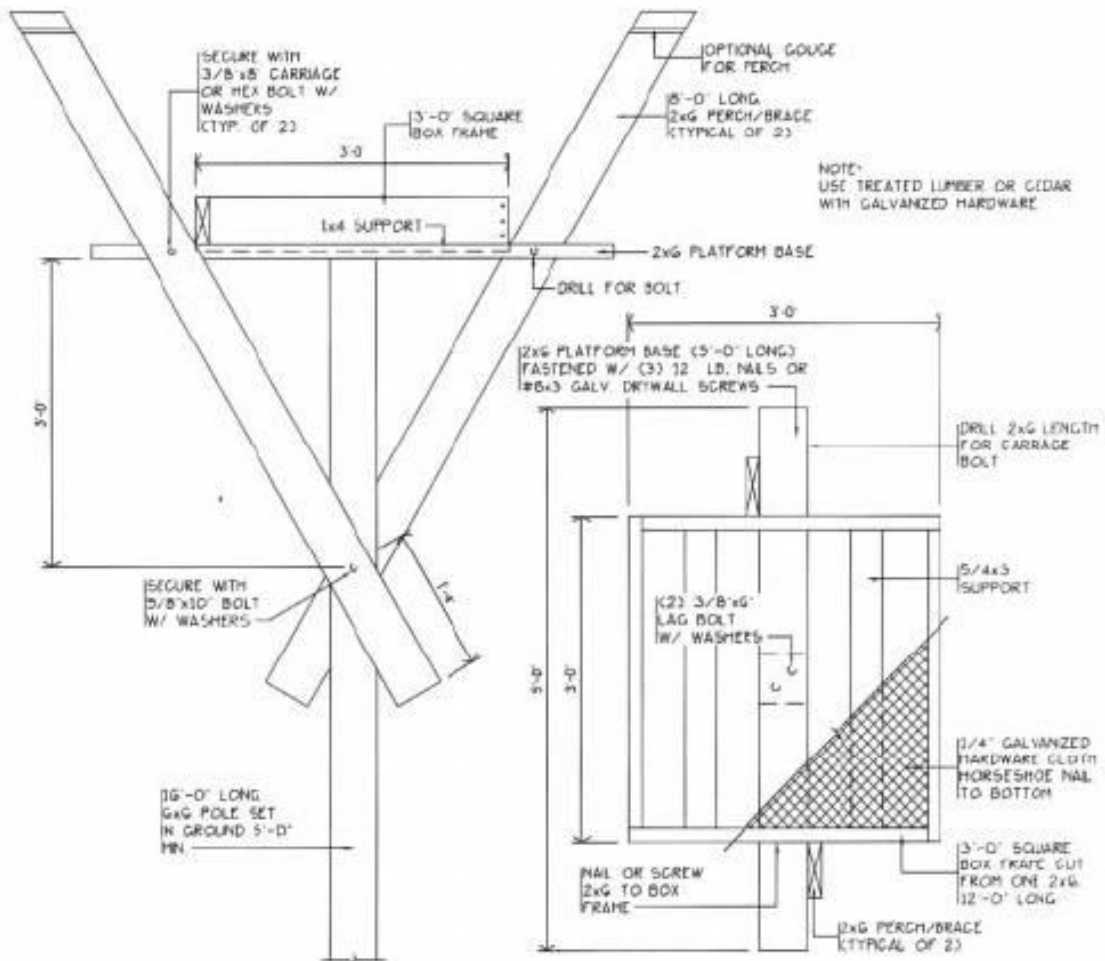


A. Georgian Bay design for mounting on bedrock. B. Ontario Ministry of Natural Resources and Environment Canada design made from hardwood industrial pallet (modified from Ewins, 1994).



A. International Osprey Foundation design. B. Minnesota design. C. Platform for top of sawn-off tree (modified from Ewins, 1994).

**OSPREY NEST PLATFORM**  
**ENDANGERED & NONGAME SPECIES PROGRAM**  
**N.J. DIVISION OF FISH, GAME & WILDLIFE**



ELEVATION

TOP VIEW

2x6 FASTENED W/ (3) 12 LB. NAILS OR #8x3 GALV. DRYWALL SCREWS

1/4" GALV. HARDWARE CLOTH



SECTION

DESIGNED BY: CITIZENS UNITED TO PROTECT THE MAURICE RIVER AND ITS TRIBUTARIES

**Materials List for Osprey Platform  
Maurice River/NJ FWS**

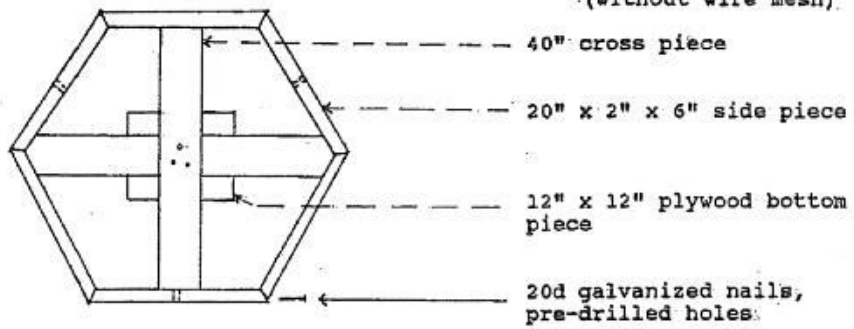
<u>Item</u>	<u>Quality</u>	<u>Size</u>	<u>Description</u>	<u>Approximate Price</u>
<b>Lumber</b>				
Pole	1	16'	6" x 6" pressure treated	\$36.51
Box frame	1	12'	2" x 6" pressure treated	\$11.22
Platform base	1	5'	2" x 6" pressure treated	\$ 7.89
Perch brace	2	8'	2" x 6" pressure treated	\$15.78
Side supports	1	3'	5/4" x 6" pressure treated (ripped)	\$ 5.04
<b>Wire mesh</b>				
Hardware cloth	1	3' square	1/4" galvanized	\$ 7.00
<b>Fasteners</b>				
Platform base to pole	2	3/8" x 6"	galvanized lag bolts	\$ 1.70
	2	3/8"	galvanized flat washers	\$ .18
Box to platform base	8	#8 x 3"	galvanized Drywall screws (3.99 per lb.) or (12b galvanized nails)	\$ .70
Four corners of box	12	#8 x 3"	galvanized Drywall screws or (12b galvanized nails)	\$ 1.00
Perch brace to platform base	2	3/8" x 8"	galvanized carriage bolts	\$ 2.72
	2	3/8"	galvanized washers	\$ .18
Perch braces to Pole	1	1/2" x 10"	galvanized hex bolt	\$ 2.20
	2	5/8"	galvanized flat washers	\$ .88
Fasten wire to box	40	3/8"	galvanized fence staples (1.20 per lb.)	\$ .50
Side supports to box	8	8b	galvanized nails (1.19 per lb.)	\$ .25

*Estimated Total Cost\** \$93.75

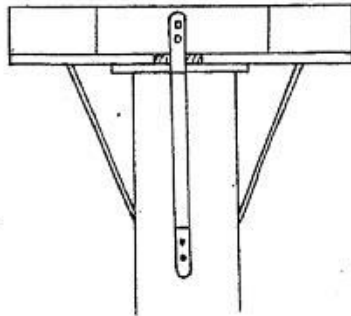
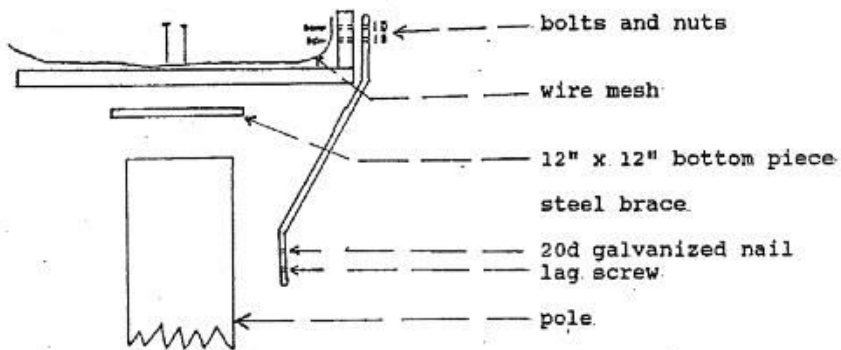
*All poles must have a predator guard!*

**OSPREY PLATFORM**

**Top View**  
(without wire mesh)



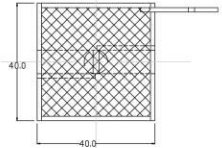
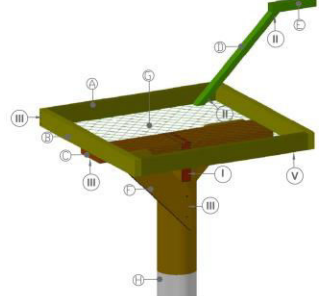
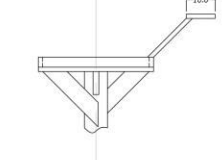
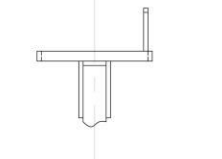
**Side View**



**Finished Platform**

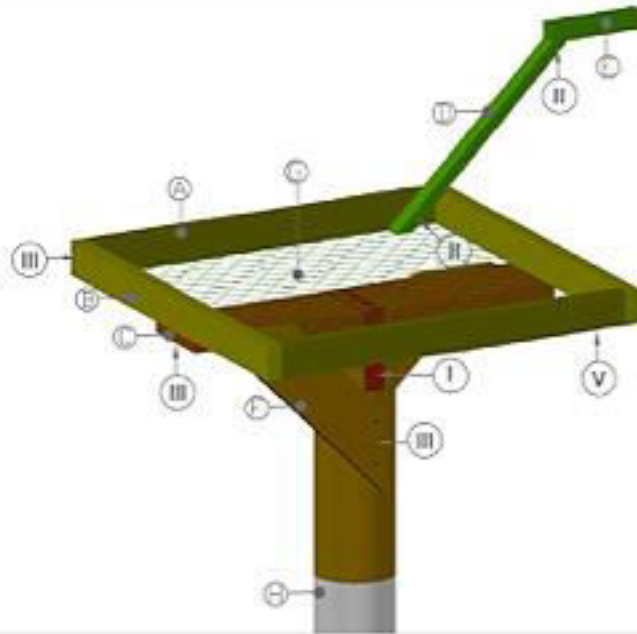
Osprey platform schematic and construction drawing. F. L. Johnson and V. Wolniewicz, Wisconsin DNR



<p><b>Top</b></p> 	
<p><b>Side</b></p> 	<p><b>List of Materials:</b></p> <ul style="list-style-type: none"> <li>A) 2ea. 37" x 2" x 4" pressure treated lumber</li> <li>B) 2ea. 40" x 2" x 4" pressure treated lumber</li> <li>C) 1ea. 40" x 2" x (6" or 8") pressure treated lumber</li> <li>D) 1ea. 24" x 2" x 2" pressure treated lumber</li> <li>E) 1ea. 10" x 2" x 2" pressure treated lumber</li> <li>F) 2ea. 22" (long side) 5/4" braces cut at 45 degree angles.</li> <li>G) 1ea. 40' square of chain link fence</li> <li>H) 1ea. 3' x 18" aluminum flashing (optional)</li>   <li>I) 1ea. 24" galvanized steel strap</li> <li>II) 4ea. galvanized screws (3 1/2") or deck screws (pre-drill with <math>\frac{3}{16}</math>" to prevent splitting)</li> <li>III) 32ea. 16 penny galvanized ring shank nails (pre-drill with <math>\frac{3}{16}</math>" to prevent splitting)</li> <li>IV) 20ea. 1-1/8" galvanized fence staples</li> <li>V) 10ea. 1 1/4" galvanized strapping nails</li> </ul>
<p><b>Front</b></p> 	

<p><b>International Osprey Foundation</b></p>	<p>THE INTERNATIONAL OSPREY FOUNDATION <small>www.ospreys.com</small></p>	<p>OSPERY PLATFORM WOOD POLE MOUNT</p>	<p>05-2011 001 N.T.S. <b>0001</b></p>
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***Plans and material list for IOF platform to follow:***



**List of Materials:**

- A) 2ea. 37" x 2" x 4" pressure treated lumber
- B) 2ea. 40" x 2" x 4" pressure treated lumber
- C) 1ea. 40" x 2" x (6" or 8") pressure treated lumber
- D) 1ea. 24" x 2" x 2" pressure treated lumber
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- G) 1ea. 40" square of chain link fence
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- I) 1ea. 24" galvanized steel strap
- II) 4ea. galvanized screws (3 1/2") or deck screws (pre-drill with  $\frac{5}{16}$ " to prevent splitting)
- III) 32ea. 16 penny galvanized ring shank nails (pre-drill with  $\frac{5}{16}$ " to prevent splitting)
- IV) 20ea. 1-1/8" galvanized fence staples
- V) 10ea. 1 1/4" galvanized strapping nails

THE INTERNATIONAL OSPREY  
FOUNDATION

[www.ospreys.com](http://www.ospreys.com)

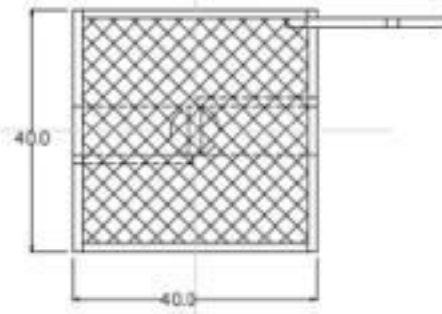
OSPERY PLATFORM  
WOOD POLE MOUNT

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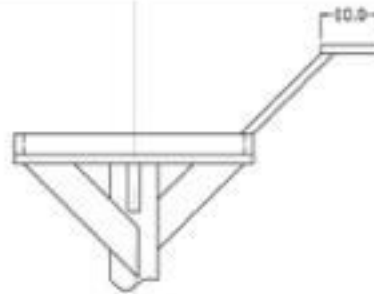
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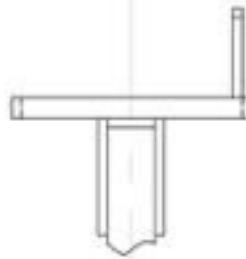
Top



Side



Front



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**International Osprey Foundation**