

NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE SPECIFICATION

649J – STRUCTURES FOR WILDLIFE, BLUEBIRD NEST BOX

I. SCOPE

The works consists of installing bluebird boxes with the materials and to the dimensions shown on the drawings. Installed boxes will address wildlife habitat deficiencies where there is a lack of natural nesting or roosting structures and where artificial structures will enhance those habitats.

II. AREAS AND TIMING

Installation sites of bluebird boxes shall be shown on the plans, while the methods used, and timing of treatment are shown on the Implementation Requirements Sheet and supporting materials. More specific planning guidance and requirements on locations and timing of installing bluebird boxes are listed below.

III. PLANNING AND GENERAL REQUIREMENTS

Nest Box Design Requirements:

- *Materials*
 - Use redwood or cedar, board 1" x 6" x 4' long
 - Use on redwood or cedar board 1" x 10" x 10 ½" Long
 - Use 1-3/4 "galvanized nails or screws to – approximately 20;
 - Use 1-3/4 "galvanized nail or screws for pivot point - 2
 - Double-headed nail for holding door closed – 1
- *Design*
 - See following Figure 1 on following page. Follow all dimensions and specifications
- *Painting nest structure*
 - Painting is unnecessary. Painting may increase visibility of the nest box for predators.
- *Timing of Installation*
 - For elevations below 2,000 feet, structures should be installed by February 1.
 - At higher elevations install as soon as safe access and ease of installing is available

Start cutting at the “floor” and work towards the “back” since the back dimension is the least Critical

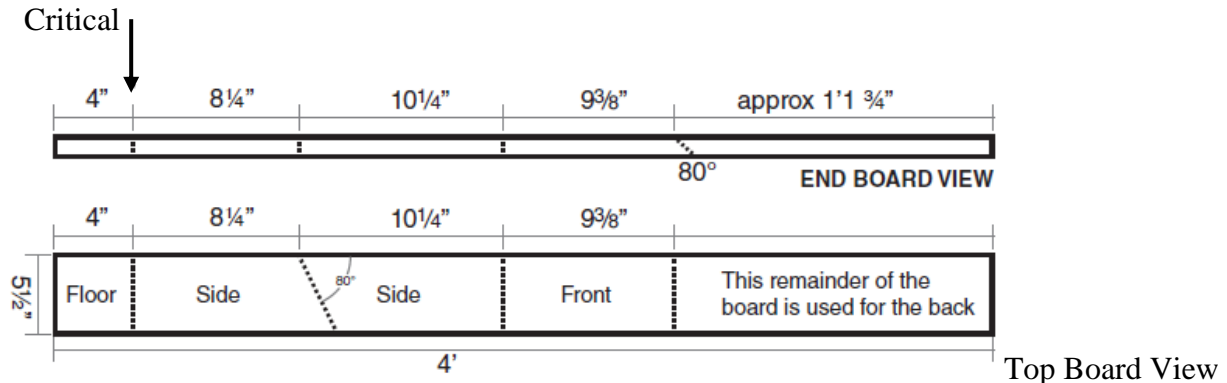
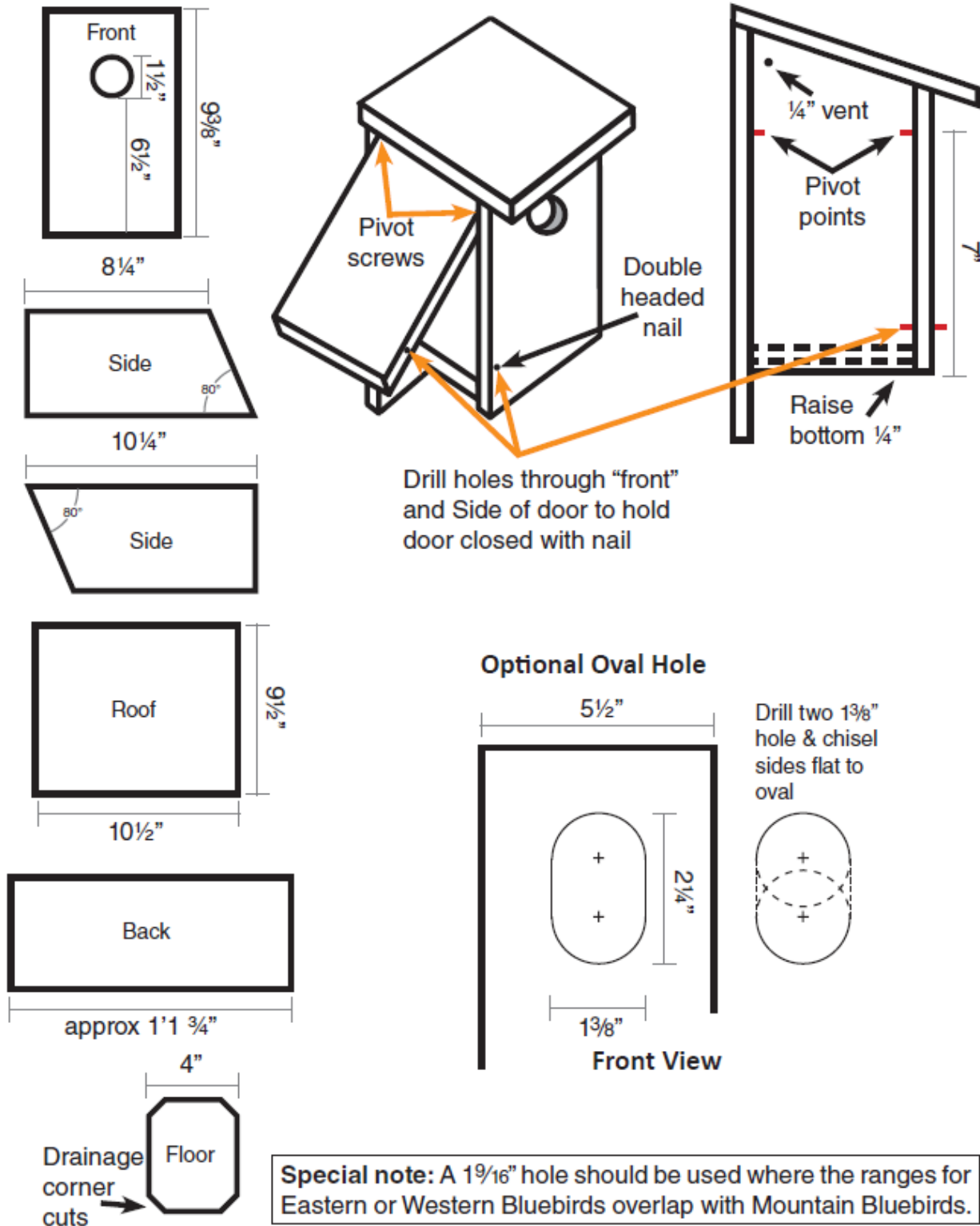


Figure 1. Bluebird. Nest Box Design and cut specifications

Construction Plan



- *Need for predator guards*
 - Boxes mounted to metal poles or buildings do not require a predator guard.
 - Boxes placed on trees or wooden posts should be equipped with a predator guard 6 to 12 inches from the bottom of the box. If predation becomes a problem, relocating troubled nest boxes after a few seasons may be beneficial.

- *Placement*
 - Bluebird nest boxes should be placed on a post, pole, or the side of outbuilding with the entrance hole 5-7 feet above the ground,
 - Avoid placing nest boxes near roads, where young bluebirds learning to fly or hunt may. When placed near road entrance hole should be facing away from the road
 - Individual nesting pairs require an adequate territory in which to nest and forage. Nest boxes should be placed at least 100 yards apart from one another.
 - The box entrance should face southeast to avoid direct winds and to reduce direct sunlight through opening that increases internal box temperature.
 - In areas which experience ambient temperatures exceeding 90 degrees during nest season, consider attaching some type of heat shield.
 - Place boxes where competition from house sparrows and/or starlings are low.
 - In agricultural areas, it is important that nest boxes be located a distance away from fields that are heavily treated with pesticides since the birds feed primarily on insects.
 - Make sure to place boxes where installation, monitoring and maintenance activities can be accomplished with little risk to those doing these activities.

- *Mounting (Figure 2, 3)*
 - For most farms or ranches nest boxes do not need to be mounted any higher than 7'. This will allow for easy access during monitoring and maintenance activities.
 - Mounting on metal pipes will reduce predation of eggs or young by snakes, raccoons, and squirrels.
 - Mounting to the steel pipe can be accomplished by welding a piece of angle iron horizontally to the post at a spot where the nest box can rest. The other method is to use pipe clamps or pipe grip ties. (See figure 3 below).
 - Mounting on sides of building can be accomplished using 5/16" lag bolts or threaded bolts.
 - Although nest boxes can be mounted to the side of barns or other buildings consider the level of disturbance in the vicinity of where the box is intended to be mounted.



Figure 2. Mount back of nest box with pipe clamps *Figure 3. Clamp pole to t-post*

IV. MONITORING

- Overall, one should attempt to accommodate the bird's natural nesting instincts and requirements while still allowing for routine monitoring during the nesting season.
- **Monitoring nest boxes should occur at least once a year.** If there is only an opportunity to conduct checks once, that check should be the Pre-season check.

V. OPERATION AND MAINTENANCE

- During preseason maintenance inspections (January – February) consider lubricating hinges, check mounting structures and recharge cleaned out nest box with two inches of fresh wood shavings can be placed in the bottom of the box for nesting material.
- If predators such as raccoons or snakes discover an occupied nest box, they likely will continue to return for eggs or nestlings in the future. If such predation becomes a problem, relocating troubled nest boxes after a few seasons may be beneficial.
- Exotic Species Control – Exotic species, specifically the European starling, compete with American bluebirds for nesting cavities. If starlings are found to be nesting in a box, remove and dispose of the nest and its contents. The actual trapping and elimination of the adult bird in the box is more effective than simply removing the nest. However, most species of birds are federally protected and it is illegal to destroy them, their nests, or their eggs. Therefore, be certain of the bird species nesting in a box before control measures are implemented.