Appendix C:

Vegetation Survey

Weldin Plantation Vegetation Survey

Conducted November 6, 2000

by Dorothy A. Daly

View to Weldin Road from woodland understory of the Weldin Plantation.

Weldin Plantation Vegetation Survey

A vegetative survey was conducted on November 6, 2000 on the Weldin Plantation Archaeological Site (7NC-B-11) in New Castle County, Delaware. The survey was conducted to see if specific uses of the site could be determined (i.e. apple orchard near a presumed apple press) from the vegetation present on the site.

The survey consisted of a walking field investigation that identified plants around specific areas of the site. This report documents species of herbaceous and woody plants identified on the site, but specifically details the main structures of the plantation site (***Figure 1***), such as the barn and structures A, presumed to be the main house and unidentified structure B. This is not a complete list, the vegetation that was most prolific, native or historically used for specific purposes was identified. Actual numbers of each species located on site was not determined. The field survey was attended and conducted by the following people: Rob Line from the Department of Natural Resources and Environmental Control, Scott Emory from McCormick, Taylor and Associates, Inc, and Dorothy Daly of McCormick, Taylor and Associates, Inc.

The following herbaceous and woody species were identified at or around each of the labeled structures on Figure 1. A determination of possible uses of the plant material, such as for ornamental use, or culinary purposes is included in each of the identifications.

Structure A

Trees:

Catalpa **Catalpa speciosa**

A few Catalpa were present on the site, it was determined that this species is most likely introduced to the project area, is adventive, but may have been planted.

Tree of Heaven **Ailanthus altissima**

This tree species is an invasive exotic and most likely was introduced to the project area from seed by birds or waste dumped from area development.

White Pine **Pinus strobus** ***(Photo 1)***

There was remains of a single white pine, the trunk was lying across the structure remains. This tree was most likely planted for protection from the wind.

Photo 1 (See Figure 1 for location)
Fallen white pine across Structure A.

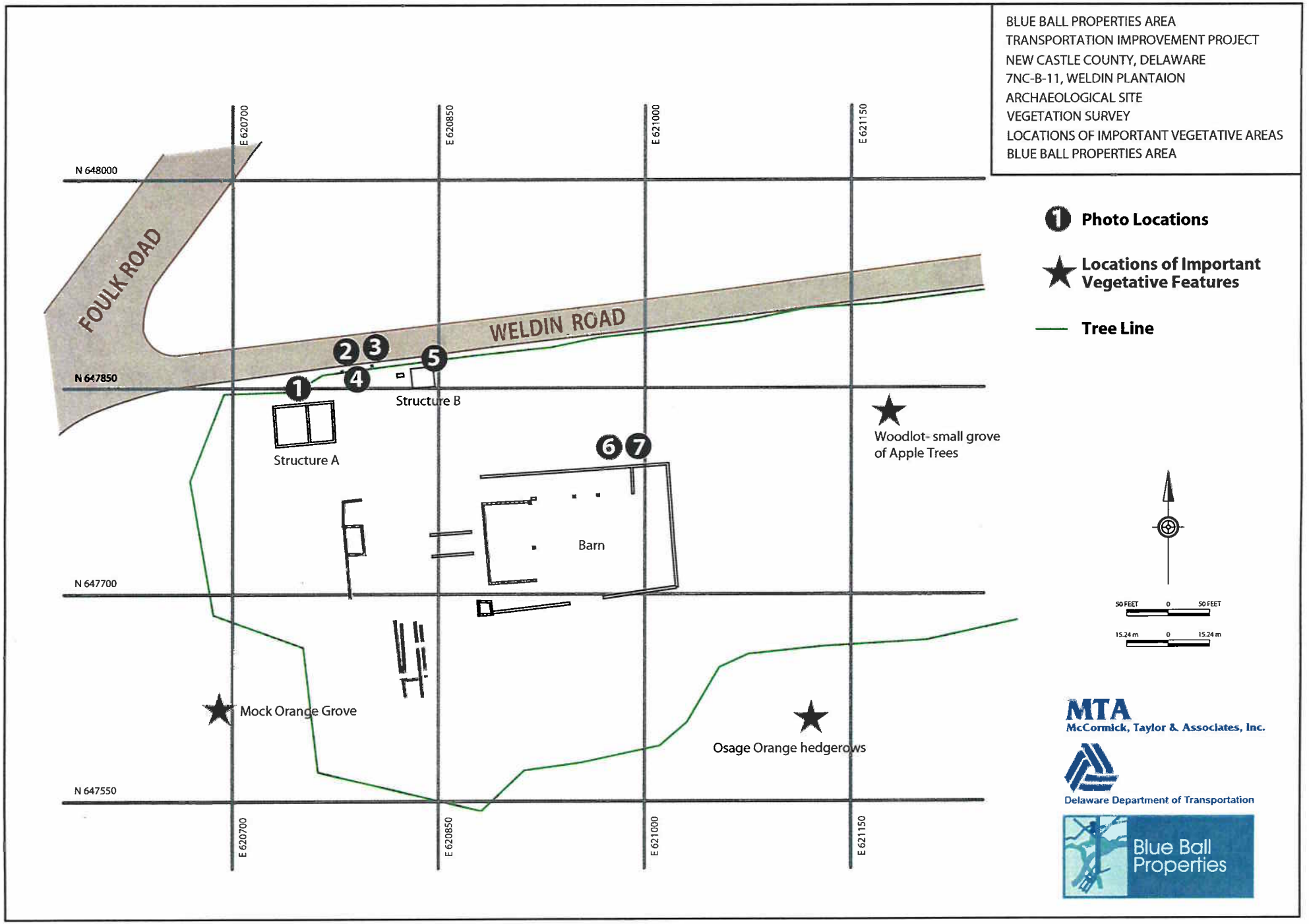
BLUE BALL PROPERTIES AREA
TRANSPORTATION IMPROVEMENT PROJECT
NEW CASTLE COUNTY, DELAWARE
7NC-B-11, WELDIN PLANTAION
ARCHAEOLOGICAL SITE
VEGETATION SURVEY
LOCATIONS OF IMPORTANT VEGETATIVE AREAS
BLUE BALL PROPERTIES AREA
FOULK ROAD
WELDIN ROAD
N 648000
N 647850
N 647700
N 647550
E 620700
E 620850
E 621000
E 621150
Structure A
Structure B
Barn
Woodlot- small grove of Apple Trees
Mock Orange Grove
Osage Orange hedgerows
1 Photo Locations
Locations of Important Vegetative Features
Tree Line
50 FEET 0 50 FEET
15.24 m 0 15.24 m
MTA
McCormick, Taylor & Associates, Inc.
Delaware Department of Transportation
Blue Ball Properties

Figure 1

Oak (Pin or Red) **Quercus spp.**
This is a native species to the northeast region, because there were only a few identified, it was determined that a parent tree may have existed in the woodlands on the site prior to habitation or been planted during habitation of the site.

Apple **Malus spp.**
A number of apple species were planted on either side of the entrance to the tracts of the driveway by the entrance posts. The remains of these trees were visible at the time of the survey.

Honeylocust **Gleditsia triacanthos**
There were a couple of young trees on the site that were most likely introduced to the project area, is adventive, and a parent tree may have been planted.

Sweet Cherry **Prunus avium**
These trees may have been planted, but were most likely spread by birds or seeds.

Shrubs:
Privet **Ligustrum spp. (*Photos 2 and 3*)**
Two hedgerows existed along the Weldin Road entrance, spreading north and south from the entrance posts. These were definitely planted.

Photo 2
Hedgerow of privet looking north along Weldin Road.

Photo 3
Privet Hedge looking south along Weldin Road.

Hackberry **Celtis occidentalis**
This is a small native tree, and the few that were identified were most likely naturally occurring and may have been used for berries. Additionally, the trees may have been planted for ornamental purposes.

Blackberry **Rubus occidentalis**
This abundant native shrub may have been planted for berries, but was most likely naturally occurring, or was spread by birds or seed.

Rose of Sharon **Hibiscus syriacus**
This is an ornamental species that most likely was planted.

Groundcover:
English ivy **Hedera helix**
This groundcover occurred in two spots and may have been planted or resulted from dumping of soil by development activities in the area.

Chinese bittersweet **Celastrus orbiculatus**
This is an invasive exotic, most likely spread by birds and seed.

Japanese knotweed **Polygonum cuspidatum**
This is an invasive exotic, most likely spread by birds and seed.

Structure B

Trees:
Sweet Cherry **Prunus avium**
Although there were a number of trees on the site, one large specimen, most likely 100+ years old, may have been planted, but was most likely introduced by birds or seeds.

Silver Maple **Acer saccharinum**
These abundant trees are located along the edge of structure B and although naturally occurring in wet areas, may have been planted as a windbreak. There is a specimen 50+ years old on the site.

Norway Maple **Acer platanoides**
A number of these trees were on the site, this is an invasive exotic and was most likely spread by seed.

Shrubs:

Amur Honeysuckle **Lonicera maackii (*Photo 4*)**

There are many groups of the Amur honeysuckle located in the woodland understory, this is an invasive exotic and was most likely spread by birds and seed.

Photo 4
Amur Honeysuckle growing along roadside edge

Photo 5
Periwinkle (Vinca minor)located along the edge of Structure B.

Groundcover:

Periwinkle **Vinca minor (*Photo 5*)**

The periwinkle was located along the edge of structure B and was planted or resulted from soil dumped on site during area development activities.

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Japanese Honeysuckle **Lonicera japonica**
This vine can grow like a groundcover, and is a prolific invasive exotic. This plant most likely spread from birds or seed.

Poison Ivy **Toxicodendron radicans**
This native plant exists in forest understories and may have been present prior to habitation of the site.

Barn

Trees:
Silver Maple **Acer saccharinum (*Photos 6 and 7*)**
There is a potential parent tree to the other silver maples on site, and may have been planted as a windbreak, although most likely it is naturally occurring.

Photo 6
Crown of potential parent Silver Maple.

Photo 7
Large caliper of potential parent Silver Maple.

Norway Maple **Acer platanoides**
This is an invasive exotic, a few were found on the site, most likely spread by birds and seed.

Black Walnut **Juglans nigra**
This is a native tree species to the northeast region, and the few identified may have been planted for the nuts, but most likely a parent tree previously existed in the woodlands on the site.

Box Elder **Acer negundo**
This native woodland understory tree probably existed on site during the period of habitation.

Black Cherry **Prunus serotina**
This native woodland tree probably resulted from a parent tree on site during habitation of the site.

Red maple **Acer rubrum**
This native tree is indicative of low-lying or wet areas, and is also a common woodland understory tree in the area. A couple were identified around the barn and this tree may have resulted from parent trees that existed during the sites' habitation.

Catalpa **Catalpa speciosa**
This species is most likely introduced to the project area, is adventive, but may have been planted.

Hickory **Carya spp.**
This is native woodland tree in the northeast region, likely occurring naturally, but may have been planted for the nuts.

Sassafrass **Sassafrass albidum**
There is a grove located on the edge of the agricultural field. This tree is native.

Northern Red Oak **Quercus rubra**
This is a native woodland tree found in the northeast regions Beech/Oak/Hickory forests and may result from a parent tree that existed during prior to habitation of the site.

Osage Orange **Maclura pomifera**
There is an allee of trees located along driveway/hedge row. This is an introduced species, is adventive, and was most likely planted.

Apple **Malus spp.**
A couple of apple trees were identified, mostly dead, and these trees were most likely planted for their fruit.

American Hazelnut **Corylus americana**
This is a native species to the northeast region, and the few on the site may have been planted for the nuts, but most likely occurred naturally.

Shrubs:
Blackhaw Viburnum **Viburnum prunifolium**
This is a native species, most likely occurring naturally on the site, and used for the berries.

Rose of Sharon **Hibiscus syriacus**
There were a few specimen plants located on the site. This is an ornamental species and was most likely planted.

Wineberry **Rubus phoenicolafius**
This is an invasive exotic and the couple identified were probably spread by birds and seed.

Mulberry **Morus spp.**
This is an exotic species that may have been planted for its berries, but was most likely naturally occurring on the site.

Staghorn Sumac **Rhus typhina**
This is a native species that is indicative of disturbance to the area.

Spicebush **Lindera benzoin**
This is a native woodland understory species whose numerous plants most likely result from parent species that existed during the site's habitation.

Amur Honeysuckle **Lonicera maackii**
There are many groups of the Amur honeysuckle located in the understory, this is an invasive exotic and was most likely spread by birds and seed.

Sweet Mock-orange **Philadelphus coronarius**
There is a grove located at the field edge (northwest corner). This is an exotic that was most likely planted for ornamental purposes.

Groundcover:
Japanese Honeysuckle **Lonicera japonica**
This prolific vine acts as a groundcover and is an invasive exotic. This plant most likely spread from birds or seed.

Rock Island (in field)

Trees:
Black Cherry **Prunus serotina**
This native woodland tree probably resulted from a parent tree on site during habitation of the site.

Mulberry **Morus spp.**
This is an exotic species that may have been planted for its berries.

Amur Honeysuckle **Lonicera maackii**
There are many groups of the Amur honeysuckle located in the understory, this is an invasive exotic and was most likely spread by birds and seed.

Groundcover:

Honeysuckle **Lonicera japonica**

This vine acts as a groundcover and is an invasive exotic. This plant most likely spread from seed.

Woodlot (Southwest entrance from field)

Trees:

Oak (Scarlet or Pin) **Quercus spp.**

There are edge plantings of these tree, they are native to the northeast Beech/Oak forest, may have been planted for protection from the wind.

Tulip poplar **Liriodendron tulipifera**

These native woodland trees probably result from parent trees that existed during the sites habitation.

Apple **Malus spp.**

There is a small grove of apple trees that were most likely planted and are remnants from the time that the site was inhabited.

Black Cherry **Prunus serotina**

This native tree, with just a few present, probably resulted from parent trees found on the site during habitation of the site.

American Beech **Fagus americana**

This is a native tree of the northeastern Beech/Oak forest and the couple present most likely result from parent trees that were located on the site.

Green Ash **Fraxinus pennsylvanica**

This native tree most likely results from parent trees located in the area.

Shrubs:

Spicebush **Lindera benzoin**

This is a native understory species that most likely results from parent species that occurred naturally on the site.

Greenbriar **Smilax spp.**

This abundant native shrub can be found throughout the woodlands of the northeast region.

Groundcover:

Japanese Honeysuckle **Lonicera japonica**

This prolific vine acts as a groundcover and is an invasive exotic. This plant most likely spread from birds or seed.

Poison Ivy **Toxicodendron radicans**
This native plant exists in forest understories and may have been present since habitation of the site.

English ivy **Hedera helix**
This exotic species was found in two areas, and may have been planted, but most likely results from soil dumped during development activities in the area.

Additional Notes and comments:

- The black cherry, sumac, hackberry, American hazelnut, blackhaw viburnum, and spicebush are most likely naturally occurring following abandonment.

- The hickories, and walnuts may have been planted, but they were likely readily available along field edges.

- The silver maples probably result from a couple large parent trees naturally occurring on the site. There are two specimens on site that may be the original parent trees.

- Many of the planted plants may be offspring of now dead parent plants, so it may be hard to reconstruct how the Weldin Plantation site looked. Clearly some of the ornamentals found on the site are remnants of the old farm plantings, such as the mock-orange, privet, apple, white pine, Rose-of-Sharon and possibly the silver maples, planted as windbreaks.

- Some plants currently present on the site are from recent roadside dumping events that occurred during development activities in the area. The Japanese knotweed is definitely found on the site as a result of this, while the English ivy and the periwinkle possibly occur due to this reason.

- The catalpa and honeylocust were commonly planted during the farm period, so it was determined that the specimens found on the site may be remnants of that period.

In conclusion, it should be noted that the amount of development and roadside activity that occurred in this area after habitation ceased makes it difficult to determine the way the site may have looked from the vegetation. Some of the vegetation found can be linked back to typical uses by other historic sites from the same period of habitation, and specific uses can be surmised, but an overall conclusion or site plan cannot be completed with the information available.