

WETLAND DELINEATION REPORT
CARRIAGE HILL ESTATES
Town of Brunswick, Rensselaer County, New York

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1.0 Introduction

This report details the findings of a wetland delineation performed by R.J. Dunn and Associates for the purpose of ultimately establishing an ACOE Jurisdictional Determination (JD) and to identify potential impacts of wetlands by the proposed construction of the Carriage Hill Estates Planned Development District. This delineation was conducted in November of 2004 with most of the wetlands flagged and located on the site map. Although several data sheets were filled out in 2004, additional data sheets were completed during the official 2005 growing season in order to satisfy the requirements of the U.S. Army Corps of Engineers. The project proponent, United Development Corporation, proposes to construct a Planned Development District (PDD); to include "estate" lots of 3-4 acres in size, a "carriage" home zone of ¼ acre lots and apartments for independent senior living.

2.0 Site Description

The proposed 214 acre project site is bordered to the north by NYS Route 2 and the Posten Kill Creek, to the west by the Troy Country Club, to the south by Pinewoods Avenue (County Route 40) and to the east by single family homes. The center of the property is traversed by a Niagara Mohawk easement running north to south.

The site ranges in elevation from approximately 330-feet MSL on the north side adjacent to the Posten Kill Creek to approximately 560-feet MSL in the center of the site. The property is composed of many ridges and steep valleys. Intermittent streams traverse many of these valleys, most of which flow to the Posten Kill. The most dominant intermittent stream flows east-west near the southern limits of the property to a pond on the Troy Country Club. All of the identified wetlands are located on relatively flat slopes or terraces, at the toe of a topographical slope or in broad swales.

Currently, the site is undeveloped forest and abandoned fields in various stages of regrowth. NYS Department of Environmental Conservation, through the New York Natural Heritage Program, has classified ecological community types that are found in New York State. Although no two examples of a community type are identical in composition or environment, they are similar within a given range of variability. PALUSTRINE refers to wetland communities, while TERRESTRIAL refers to uplands. The following ecological communities, as described by the New York Natural Heritage Program, can be found on the project site.

2.1 Ecological Communities

Shallow emergent marsh (Palustrine):

A marsh meadow community that occurs on mineral soil or deep muck soils (rather than true peat), that are permanently saturated and seasonally flooded. This marsh is better drained than a deep emergent marsh; water depths may range from 6 in to 3.3 ft (15 cm to 1 m) during flood stages, but the water level usually drops by mid to late summer and the substrate is exposed during an average year. Most abundant herbaceous plants include bluejoint grass (*Calamagrostis canadensis*), cattails (*Typha latifolia*, *T. angustifolia*, *T. x glauca*), sedges (*Carex* spp.), marsh fern (*Thelypteris palustris*), manna grasses (*Glyceria pallida*, *G. canadensis*), spikerushes (*Eleocharis smalliana*, *E. obtusa*), bulrushes (*Scirpus cyperinus*, *S. tabernaemontani*, *S. atrovirens*), threeway sedge (*Dulichium arundinaceum*), sweetflag (*Acorus americanus*), tall meadow-rue (*Thalictrum pubescens*), marsh St. John's-wort (*Triadenum virginicum*), arrowhead (*Sagittaria latifolia*), goldenrods (*Solidago rugosa*, *S. gigantea*), eupatoriums (*Eupatorium maculatum*, *E. perfoliatum*), smartweeds (*Polygonum coccineum*, *P. amphibium*, *P. hydropteroides*), marsh bedstraw (*Galium palustre*), jewelweed (*Impatiens capensis*), loosestrifes (*Lysimachia thyrsiflora*, *L. terrestris*, *L. ciliata*). Frequently in degraded examples reed canary grass (*Phalaris arundinacea*) and/or purple loosestrife (*Lythrum salicaria*) may become abundant. Sedges (*Carex* spp.) may be abundant in shallow emergent marshes, but are not usually dominant. Marshes must have less than 50% cover of peat and tussock-forming sedges such as tussock sedges (*Carex stricta*), otherwise it may be classified as a sedge meadow. Characteristic shallow emergent marsh sedges include *Carex stricta*, *C. lacustris*, *C. lurida*, *C. hystrixina*, *C. alata*, *C. vulpinoidea*, *C. comosa*, *C. utriculata*, *C. scoparia*, *C. gynandra*, *C. stipata*, and *C. crinita*.

Other plants characteristic of shallow emergent marshes (most frequent listed first) include blue flag iris (*Iris versicolor*), sensitive fern (*Onoclea sensibilis*), common skullcap (*Scutellaria galericulata*), beggarticks (*Bidens* spp.), water-horehounds (*Lycopus uniflorus*, *L. americanus*), bur-weeds (*Sparganium americanum*, *S. eurycarpum*), swamp milkweed (*Asclepias incarnata*), water-hemlock (*Cicuta bulbifera*), asters (*Aster umbellatus*, *A. puniceus*), marsh bellflower (*Campamula aparinoides*), water purslane (*Ludwigia palustris*), royal and cinnamon ferns (*Osmunda regalis*, *O. cinnamomea*), marsh cinquefoil (*Potentilla palustris*), rushes (*Juncus effusus*, *J. canadensis*), arrowleaf (*Peltandra virginica*), purple-stem angelica (*Angelica atropurpurea*), water docks (*Rumex orbiculatus*, *R. verticillatus*), turtlehead (*Chelone glabra*), waterparsnip (*Sium suave*), and cardinal flower (*Lobelia cardinalis*).

Shallow emergent marshes may have scattered shrubs including rough alder (*Alnus incana* ssp. *rugosa*), water willow (*Decodon verticillatus*), shrubby dogwoods (*Cornus amomum*, *C. sericea*), willows (*Salix* spp.), meadow sweet (*Spiraea alba* var. *latifolia*), and buttonbush (*Cephalanthus occidentalis*). Areas with greater than 50% shrub cover are classified as shrub swamps.

Amphibians that may be found in shallow emergent marshes include frogs such as eastern American toad (*Bufo a. americanus*), northern spring peeper (*Pseudacris c. crucifer*), green frog (*Rana clamitans melanota*), and wood frog (*Rana sylvatica*); and salamanders such as northern redback salamander (*Plethodon c. cinereus*) (Hunsinger 1999). Birds that may be found include red-winged blackbird (*Agelaius phoeniceus*), marsh wren (*Cistothorus palustris*), and common yellowthroat (*Geothlypis trichas*) (Levine 1998).

Shallow emergent marshes typically occur in lake basins and along streams often intergrading with deep emergent marshes, shrub swamps and sedge meadows, and they may occur together in a complex mosaic in a large wetland.

Distribution: throughout New York State.

Rank: G5 S5 Revised: 2001

Examples: South Branch Grass River Colton, St. Lawrence County; West Branch Oswagatchie River Diana, Lewis County; East Branch Fish Creek, Lewis County; Jordan River, St. Lawrence/Franklin Counties; Lakeview Marshes, Jefferson County.

Sources: Bray 1915; Gilman 1976; Hotchkiss 1932; Hunsinger 1999; Levine 1998; Metzler and Tiner 1992; Tiner 1985; NYNHP field surveys.

Shrub swamp (Palustrine):

An inland wetland dominated by tall shrubs that occurs along the shore of a lake or river, in a wet depression or valley not associated with lakes, or as a transition zone between a marsh, fen, or bog and a swamp or upland community. The substrate is usually mineral soil or muck. This is a very broadly defined type that includes several distinct communities and many intermediates. Shrub swamps are very common and quite variable. They may be codominated by a mixture of species, or have a single dominant shrub species.

In northern New York many shrub swamps are dominated by alder (*Alnus incana* ssp. *rugosa*); these swamps are sometimes called *alder thickets*. A swamp dominated by red osier dogwood (*Cornus sericea*), silky dogwood (*C. amomum*), and willows (*Salix* spp.) may be called a *shrub carr*. Along the shores of some lakes and ponds there is a distinct zone dominated by water-willows (*Decodon verticillatus*) and/or butonbush (*Cephalanthus occidentalis*) which can sometimes fill a shallow basin.

Characteristic shrubs that are common in these and other types of shrub swamps include meadow-sweet (*Spiraea alba* var. *latifolia*), steeple-bush (*Spiraea tomentosa*), gray dogwood (*Cornus foemina* ssp. *racemosa*), swamp azalea (*Rhododendron viscosum*), highbush blueberry (*Vaccinium corymbosum*), maleberry (*Lyonia ligustrina*), smooth alder (*Alnus serrulata*), spicebush (*Lindera benzoin*), willows (*Salix bebbiana*, *S. discolor*, *S. lucida*, *S. petiolaris*), wild raisin (*Viburnum cassinoides*), and arrowwood (*Viburnum recognitum*). More documentation and research is needed to distinguish the different types of shrub swamps in New York.

Birds that may be found in shrub swamps include common species such as common yellowthroat (*Geothlypis trichas*); and rare species such as American bittern (*Botaurus lentiginosus*), alder flycatcher (*Empidonax alhorum*), willow flycatcher (*E. trallii*), and Lincoln's sparrow (*Passerella lincolni*) (Levine 1998).

Distribution: throughout New York State.

Rank: G5 S5 Revised: 2001

Examples: West Branch Oswagatchie River Diana, Lewis County; West Branch Sacandaga River, Hamilton County; Jordan River, St. Lawrence/Franklin Counties, Shingle Shanty Brook, Hamilton County, East Branch Fish Creek, Lewis County.

Sources: Bray 1915; Levine 1998; McVaugh 1958; Metzler and Tiner 1992; Shanks 1966; Tiner 1985; NYNHP field surveys.

Red maple-hardwood swamp (Palustrine):

A hardwood swamp that occurs in poorly drained depressions, usually on inorganic soils. This is a broadly defined community with many regional and edaphic variants. In any one stand red maple (*Acer rubrum*) is either the only canopy dominant, or it is codominant with one or more hardwoods including ashes (*Fraxinus pennsylvanica*, *F. nigra*, and *F. americana*), elms (*Ulmus americana* and *U. rubra*), yellow birch (*Betula alleghaniensis*), and swamp white oak (*Quercus bicolor*). Other trees with low percent cover include butternut (*Juglans cinerea*), bitternut hickory (*Carya cordiformis*), black gum (*Nyssa sylvatica*), ironwood (*Carpinus carolinianus*), and white pine (*Pinus strobus*).

The shrublayer is usually well-developed and may be quite dense. Characteristic shrubs are winterberry (*Ilex verticillata*), spicebush (*Lindera benzoin*), alders (*Alnus incana* ssp. *rugosa* and *A. serrulata*), viburnums (*Viburnum recognitum*, and *V. cassinoides*), highbush blueberry (*Vaccinium corymbosum*), common elderberry (*Sambucus canadensis*), and various shrubby dogwoods (*Cornus sericea*, *C. racemosa*, and *C. anomum*). Swamp azalea (*Rhododendron viscosum*) is more common in southern examples, and poison sumac (*Toxicodendron vernix*) and black ash are more common in richer (higher pH) examples.

The herbaceous layer may be quite diverse and is often dominated by ferns, including sensitive fern (*Onoclea sensibilis*), cinnamon fern (*Osmunda cinnamomea*), royal fern (*O. regalis*), and marsh fern (*Thelypteris palustris*), with much lesser amounts of crested wood fern (*Dryopteris cristata*), and spinulose wood fern (*Dryopteris carthusiana*). Characteristic herbs include skunk cabbage (*Symplocarpus foetidus*), white hellebore (*Veratrum viride*), sedges (*Carex stricta*, *C. lacustris*, and *C. intumescens*), jewelweed (*Impatiens capensis*), false nettle (*Boehmeria cylindrica*), arrow arum (*Peltandra virginica*), tall meadow rue (*Thalictrum pubescens*), and marsh marigold (*Caltha palustris*). Open patches within the swamp may contain other herbs characteristic of shallow emergent marsh.

Examples of wetland fauna that occur in the glaciated northeast red maple-hardwood swamps include wood duck (*Aix sponsa*), American black duck (*Anas rubripes*), northern waterthrush (*Seiurus noveboracensis*), beaver (*Castor canadensis*), river otter (*Lutra canadensis*), and mink (*Mustela vison*). These swamps provide breeding habitat for many wetland-dependent species, such as spring peeper (*Pseudacris crucifer*), American toad (*Bufo americanus*), wood frog (*Rana sylvatica*), and spotted salamander (*Ambystoma maculatum*) (Golet et al. 1993). More data on characteristic animals, especially invertebrates, are needed.

Distribution: throughout New York State.

Rank: G5 S4S5 Revised: 2001

Example: Great Swamp Pawling, Dutchess County; Deer Creek Marsh, Oswego County; Toad Harbor Swamp; Oswego County; Orange Lake, Orange/Ulster County; Joralemon Woods, Albany County.

Sources: Cain and Penfound 1939; Golet et al. 1993; McVaugh 1958.

Successional old field (Terrestrial):

A meadow dominated by forbs and grasses that occurs on sites that have been cleared and plowed (for farming or development), and then abandoned.

Characteristic herbs include goldenrods (*Solidago altissima*, *S. nemoralis*, *S. rugosa*, *S. juncea*, *S. canadensis*, and *Euthamia graminifolia*), bluegrasses (*Poa pratensis*, *P. compressa*), timothy (*Phleum pratense*), quackgrass (*Agropyron repens*), smooth brome (*Bromus inermis*), sweet vernal grass (*Anthoxanthum odoratum*), orchard grass (*Dactylis glomerata*), common chickweed (*Cerastium arvense*), common evening primrose (*Oenothera biennis*), oldfield cinquefoil (*Potentilla simplex*), calico aster (*Aster lateriflorus*), New England aster (*Aster novae-angliae*), wild strawberry (*Fragaria virginiana*), Queen Anne's lace (*Daucus corota*), ragweed (*Ambrosia artemisiifolia*), hawkweeds (*Hieracium* spp.), dandelion (*Taraxacum officinale*), and ox-tongue (*Picris hieracioides*).

Shrubs may be present, but collectively they have less than 50% cover in the community. Characteristic shrubs include gray dogwood (*Cornus foemina* ssp. *racemosa*), silky dogwood (*Cornus amomum*), arrowwood (*Viburnum recognitum*), raspberries (*Rubus* spp.), sumac (*Rhus typhina*, *R. glabra*), and eastern red cedar (*Juniperus virginiana*).

A characteristic bird is the field sparrow (*Spizella pusilla*). This is a relatively short-lived community that succeeds to a shrubland, woodland, or forest community.

Distribution: throughout New York State.

Rank: G4 S4 Revised: 1990

Example: Chippewa Creek Plains, St. Lawrence County; Finger Lakes National Forest, Schuyler County.

Sources: Mellinger and McNaughton 1975; NYNHP field surveys.

Successional shrubland (Terrestrial):

A shrubland that occurs on sites that have been cleared (for farming, logging, development, etc.) or otherwise disturbed. This community has at least 50% cover of shrubs.

Characteristic shrubs include gray dogwood (*Cornus foemina* ssp. *racemosa*), eastern red cedar (*Juniperus virginiana*), raspberries (*Rubus* spp.), hawthorne (*Crataegus* spp.), serviceberries (*Amelanchier* spp.), choke-cherry (*Prunus virginiana*), wild plum (*Prunus americana*), sumac (*Rhus glabra*, *R. typhina*), nanny-berry (*Viburnum lentago*), arrowwood (*Viburnum recognitum*), and multiflora rose (*Rosa multiflora*).

Birds that may be found in successional shrublands brown thrasher, blue-winged warbler, golden-winged warbler, chestnut-sided warbler, yellow-breasted chat, eastern towhee, field sparrow, song sparrow, and indigo bunting (Levine 1998).

Distribution: throughout New York State.

Rank: G4 S4 Revised: 1990

Example: Chippewa Creek Plains, St. Lawrence County; Finger Lakes National Forest, Schuyler County.

Source: NYNHP field surveys.

Appalachian oak-hickory forest (Terrestrial):

A hardwood forest that occurs on well-drained sites, usually on ridgetops, upper slopes, or south- and west-facing slopes. The soils are usually loams or sandy loams. This is a broadly defined forest community with several regional and edaphic variants.

The dominant trees include one or more of the following oaks: red oak (*Quercus rubra*), white oak (*Q. alba*), and black oak (*Q. velutina*). Mixed with the oaks, usually at lower densities, are one or more of the following hickories: pignut (*Carya glabra*), shagbark (*C. ovata*), and sweet pignut (*C. ovalis*). Common associates are white ash (*Fraxinus americana*), red maple (*Acer rubrum*), and Eastern hop hornbeam (*Ostrya virginiana*). There is typically a subcanopy stratum of small trees and tall shrubs including flowering dogwood (*Cornus florida*), witch hazel (*Hamamelis virginiana*), shadbush (*Amelanchier arborea*), and choke cherry (*Prunus virginiana*).

Common low shrubs include maple-leaf viburnum (*Viburnum acerifolium*), blueberries (*Vaccinium angustifolium*, *V. pallidum*), red raspberry (*Rubus idaeus*), gray dogwood (*Cornus foemina* ssp. *racemosa*), and beaked hazelnut (*Corylus cornuta*). The shrublayer and groundlayer flora may be diverse.

Characteristic groundlayer herbs are wild sarsaparilla (*Aralia nudicaulis*), false Solomon's seal (*Smilacina racemosa*), Pennsylvania sedge (*Carex pennsylvanica*), tick-trefoil (*Desmodium glutinosum*, *D. paniculatum*), black cohosh (*Cimicifuga racemosa*), rattlesnake root (*Prenanthes alba*), white goldenrod (*Solidago bicolor*), and hepatica (*Hepatica americana*).

Characteristic animals include red-bellied woodpecker (*Melanerpes carolinus*), whip-poor-will (*Caprimulgus vociferus*), and wild turkey (*Meleagris gallopavo*).

Distribution: throughout upstate New York north of the Coastal Lowlands ecozone; most common south of the Adirondacks ecozone.

Rank: G4G5 S4 Revised: 1990

Examples: Bristol Hills, Ontario County; Finger Lakes National Forest, Schuyler County; Storm King Mountain, Orange County; Long Eddy, Delaware County.

Sources: McIntosh 1972; Ross 1958; NYNHP field surveys.

3.0 Wetland Delineation Methodology

The methodology used for delineating these wetlands is outlined in the Army Corps of Engineers Delineation Manual (ACOE, Environmental Laboratory, 1987) using the three parameter routine delineation method of vegetation, soils and hydrology. The following references were also considered, where appropriate: U.S. Soil Conservation Service Soil Survey of Rensselaer County (USDASCS), The National List of Plant Species that Occur in Wetlands (Reed, 1988), and the U.S.G.S. Quadrangle Map for Troy South, NY, Ecological Communities of New York State (New York Natural Heritage Program, NYSDEC1990). Included in this report is a set of delineation forms, photographs and maps of the wetlands showing the proposed impacts and the limits of water of the U.S.

Wetland boundaries were established by following the topography/vegetation between wetland areas and upland areas. The wetland boundary was marked by sequentially numbered pieces of Wetland Delineation tape. Wetland and upland data points were collected for each individual wetland.

Dominant plant species in each vegetative stratum were determined by making visual quantitative estimates for the tree, sapling/shrub, woody vine and herbaceous layers occurring in the immediate vicinity of the observation point. The tree dominance evaluation was based on areal cover, the sapling/shrub/woody vine on greatest frequency and the herbaceous on greatest areal coverage.

Evaluation of hydrology was performed by boring with a Dutch auger to a depth of approximately 20 inches and inspecting the boring for indications of saturated soil, standing water in the

bottom of the pit or oxidized root channels in the upper 12 inches. Other indicators of wetland hydrology include water marks on woody vegetation, sediment deposits, drift lines, water-stained leaves and wetland drainage patterns.

Soils in the upper 12 inches of the boring were evaluated with respect to the hydric soil criteria presented in the 1987 manual. This included determining if the soils exhibited low matrix chroma, were mottled or gleyed, exhibited iron or manganese concretions or oxidized root channels. The soils were also described in terms of color, texture and structure.

4.0 Description of Wetlands

A review of the site has identified 16 ACOE Jurisdictional Wetlands. Wetland types have been categorized using the U.S. Fish and Wildlife Service (USFWS) classification system (Cowardin et al., 1979). They are classified as Palustrine Emergent (PEM), Palustrine Scrub-Shrub (PSS), Palustrine Forested (PFO) or a combination of types. Acreage and type of the individual wetlands are as follows:

| | | |
|-------------|------------|---------|
| Wetland "A" | 1.49 Acres | PEM/PSS |
| Wetland "B" | 1.08 Acres | PSS |
| Wetland "C" | 5.46 Acres | PEM/PSS |
| Wetland "D" | 0.68 Acres | PSS |
| Wetland "E" | 0.23 Acres | PEM/PSS |
| Wetland "F" | 0.48 Acres | PSS |
| Wetland "G" | 0.07 Acres | PSS |
| Wetland "H" | 0.16 Acres | PFO |
| Wetland "I" | 0.39 Acres | PFO |
| Wetland "J" | 0.47 Acres | PFO |
| Wetland "L" | 1.13 Acres | PSS |
| Wetland "M" | 0.39 Acres | PFO |
| Wetland "N" | 0.32 Acres | PFO |
| Wetland "P" | 0.28 Acres | PFO |
| Wetland "Q" | 1.57 Acres | PFO |
| Wetland "U" | 0.35 Acres | PFO |

Many wetlands serve as headwaters to tributaries to the Posten Kill Creek. There are 7 intermittent streams identified as follows:

PERENNIAL:

- Tributary "1" flows northeast from Wetland "A" into the Posten Kill Creek
- Tributary "2" flows north from Wetland "B" thru Wetland "C" to the Posten Kill Creek
- Tributary "4" flows west thru Wetland "E" to a small pond on the Troy Country Club and eventually into the Posten Kill Creek
- Tributary "5" flows south thru Wetlands "I", "H", "G" and "F" to Tributary "4"

EPHEMERAL:

- Tributary "8" flows north into the Posten Kill Creek

INTERMITTENT:

- Tributary "3" originates in Wetland "J" and flows north with two more tributaries to the Posten Kill Creek
- Tributary "6" originates in Wetland "M" and flows southeast to Tributary "5"
- Tributary "7" flows southwest from Wetland "L" onto the Troy Country Club and eventually into the Posten Kill Creek
- Tributary "9" flows north to Tributary "4"
- Tributary "10" flows southwest between Wetlands "N" and "P"

The delineated wetland areas on site consist of both open and forested mineral soil wetlands of the Palustrine System, commonly characterized as emergent marsh, scrub-shrub and forested wetlands. Most of these wetlands are traversed by intermittent streams, most of which usually become seasonally dry by summer. All of these wetlands ultimately drain to the Posten Kill Creek.

4.1 Vegetation

The dominant herbaceous vegetation within the Palustrine Emergent (PEM) wetlands includes sensitive fern (*Onoclea sensibilis*), asters (*Aster umbellatus*, *A. puniceus*), rushes (*Juncus effusus*, *J. canadensis*), broad-leaf cattail (*Typha latifolia*), soft rush (*Juncus effusus*), cinnamon fern (*Osmunda cinnamomea*), upright sedge (*Carex stricta*), redtop (*Agrostis alba*), purple loosestrife (*Lythrum salicaria*), goldenrods (*Solidago rugosa*, *S. gigantea*), sweetflag (*Acorus americanus*), eupatoriums (*Eupatorium maculatum*, *E. perfoliatum*), rice cutgrass (*Leeria oryzoides*), blue vervain (*Verbena hastata*) There is a minimal shrub layer of shrubby dogwoods (*Cornus amomum*, *C. sericea*, *C. foeminaa*), willows (*Salix* spp.), and steple-bush (*Spiraea tomentosa*), associated with these wetlands.

The Palustrine Scrub-Shrub (PSS) wetlands are dominated by shrubby dogwoods (*Cornus amomum*, *C. sericea*, *C. foeminaa*), arrowwood (*Viburnum recognitum*), meadow-sweet (*Spiraea alba* var. *latifolia*), steple-bush (*Spiraea tomentosa*), green ash (*Fraxinus pennsylvanica*) and red maple (*Acer rubrum*).

The Palustrine Forested (PFO) are primarily Red maple-hardwood swamps dominated by red maple (*Acer rubrum*), but may also include green ash (*Fraxinus pennsylvanica*), elms (*Ulmus americana* and *U. rubra*), yellow birch (*Betula alleghaniensis*), and swamp white oak (*Quercus bicolor*). Other trees with low percent cover include butternut (*Juglans cinerea*), bitternut hickory (*Carya cordiformis*), black gum (*Nyssa sylvatica*), ironwood (*Carpinus carolinianus*), and white pine (*Pinus strobus*).

4.2 Hydrology

The wetlands on this site are of the Palustrine System consisting of non-tidal, perennial wetlands. The hydrological activity of these seasonally saturated wetlands is generally from rain events, seasonal snow melts that contribute to hillside seepage and a seasonal perched water table. Wetlands have been formed where groundwater seepage occurs at topographical slope breaks (i.e., tow of slopes) or where natural depressions are found along hillsides. During seasonal wetness, runoff activity contributes to the wetlands and the intermittent flow of the streams found throughout the site.

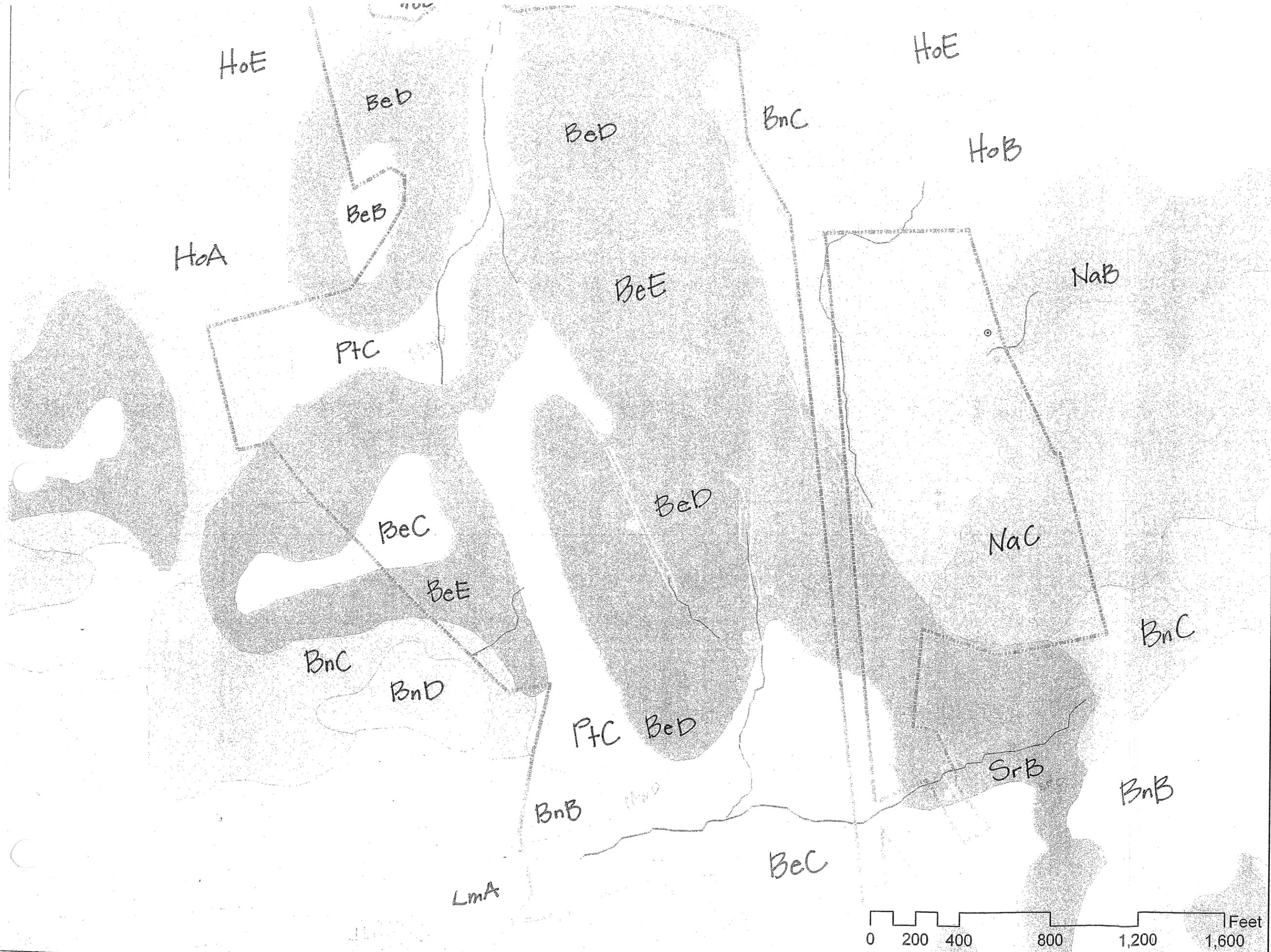
4.3 Soils

The Natural Resource Conservation Service (NRCS) has mapped several different soil series within the project area. They have been listed and located on the attached Chart and Soils Map. Although the larger part of the delineated wetland areas are located on the Soil Series that are typically well drained, such as the Benardston-Nassau Complex, they do have seasonal perched water tables and are underlain by a fragipan which greatly impedes the permeability of the soil. During periods of heavy precipitation and in the spring the water table is perched on this slowly permeable, dense fragipan and substratum at a depth of 1-1/2 to 2 feet. As water tends to move laterally above the fragipan it can sometimes be observed seeping above the pan. Areas of poorly drained Scriba soils are included in the mapping of the Benardston-Nassau Series and the other well-drained series found on site. These occur on depressions and drainageways in uplands and have been field verified to be hydric.

5.0 Conclusions

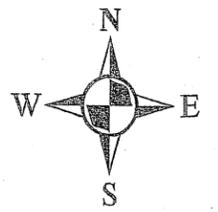
In conclusion, these ACOE Jurisdictional Wetlands, which have been field verified by the ACOE on December 9th, 2004 and again on August 10th, 2005 are not isolated as indicated on the drawing titled "Wetland Map" prepared by H2H Associates. These wetlands total 14.55 acres. In addition the wetlands identified as isolated are also located on the above mentioned "Wetland Map" and they total 1.80 acres. All tributary information (i.e. "Waters of the US") is also tabled on the same drawing. These jurisdictional waters ultimately drain to the Posten Kill Creek.

| <i>Soil Name</i> | <i>Map Symbol</i> | <i>Taxonomic Group</i> | <i>Drainage Group</i> | <i>Hydric</i> |
|--|-------------------|----------------------------------|--|---------------|
| Bernardston Gravelly Silt Loam 3-8% slopes | BeB | Oxyaquic Dystrudepts | Well and moderately well drained | No |
| Bernardston Gravelly Silt Loam 8-15% slopes | BeC | Oxyaquic Dystrudepts | Well and moderately well drained | No |
| Bernardston Gravelly Silt Loam 15-25% slopes | BeD | Oxyaquic Dystrudepts | Well and moderately well drained | No |
| Bernardston Gravelly Silt Loam 25-35% slopes | BeE | Oxyaquic Dystrudepts | Well and moderately well drained | No |
| Bernardston- Nassau Complex undulating | BnB | Oxyaquic & Lithic Dystrudepts | Somewhat excessivly drained | No |
| Bernardston- Nassau Complex rolling | BnC | Oxyaquic & Lithic Dystrudepts | Somewhat excessivly drained | No |
| Bernardston- Nassau Complex hilly | BnD | Oxyaquic & Lithic Dystrudepts | Somewhat excessivly drained | No |
| Hoosic Gravelly Silt Loam 0-3% slopes | HoA | Typic Dystrudepts | Somewhat excessivly drained | No |
| Hoosic Gravelly Silt Loam 3-8% slopes | HoB | Typic Dystrudepts | Somewhat excessivly drained | No |
| Hoosic Gravelly Silt Loam steep | HoE | Typic Dystrudepts | Somewhat excessivly drained | No |
| Limerick Silt Loam 0-3% slopes | LmA | Typic Fluvaquents | Poorly drained | Yes |
| Nassau-Manlius Complex undulating | NaB | Lithic & Typic Dystrudepts | Well drained | No |
| Nassau-Manlius Complex rolling | NaC | Lithic & Typic Dystrudepts | Well drained | No |
| Pittstown Gravelly Silt Loam 8-15% slopes | PtC | Aquic Dystrudepts | Moderately well drained | No |
| Scriba Silt Loam 3-8% slopes | SrB | Aeric Fragiaquepts | Somewhat poorly drained | NYS Hydric |



CARRIAGE HILL ESTATES
TROY, NEW YORK

February 14, 2005



ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|--|--------------------|--|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & JHunter | Project No: | Date: 20-Nov-2004 County: Rensselaer State: New York Plot ID: 1 |
|--|--------------------|--|

| | | | |
|--|--|--|--|
| Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation:)? Is the area a potential Problem Area? (If needed, explain on the reverse side) | <input checked="" type="radio"/> Yes <input type="radio"/> No | <input type="radio"/> Yes <input checked="" type="radio"/> No | Community ID: PEM / Emergent Marsh Transect ID: WET "A" Field Location: |
|--|--|--|--|

VEGETATION (USFWS Region No. 1)

| Dominant Plant Species(Latin/Common) | Stratum | Indicator | Plant Species(Latin/Common) | Stratum | Indicator |
|--|---------|-----------|--|---------|-----------|
| <i>Eupatoriadelphus maculatus</i> Joe-Pye-Weed, Spotted | Herb | FACW | <i>Onoclea sensibilis</i> Fern, Sensitive | Herb | FACW |
| <i>Leersia oryzoides</i> Cutgrass, Rice | Herb | OBL | <i>Carex lurida</i> Sedge, Shallow | Herb | OBL |
| <i>Juncus effusus</i> Rush, Soft | Herb | FACW+ | <i>Cornus amomum</i> Dogwood, Silky | Shrub | FACW |
| <i>Lythrum salicaria</i> Loosestrife, Purple | Herb | FACW+ | <i>Ulmus americana</i> Elm, American | Tree | FACW- |
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|---|--|
| Percent of Dominant Species that are OBL, FACW or FAC: (excluding FAC-) 8/8 = 100.00% | FAC Neutral: 8/8 = 100.00% Numeric Index: 14/8 = 1.75 |
|---|--|

Remarks:

HYDROLOGY

| | |
|---|--|
| <u>NO</u> Recorded Data(Describe in Remarks): <u>N/A</u> Stream, Lake or Tide Gauge <u>N/A</u> Aerial Photographs <u>N/A</u> Other <u>YES</u> No Recorded Data Field Observations Depth of Surface Water: +/- 1 (in.) Depth to Free Water in Pit: N/A (in.) Depth to Saturated Soil: N/A (in.) | Wetland Hydrology Indicators Primary Indicators <u>YES</u> Inundated <u>YES</u> Saturated in Upper 12 Inches <u>NO</u> Water Marks <u>NO</u> Drift Lines <u>NO</u> Sediment Deposits <u>NO</u> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <u>NO</u> Oxidized Root Channels in Upper 12 Inches <u>NO</u> Water-Stained Leaves <u>NO</u> Local Soil Survey Data <u>YES</u> FAC-Neutral Test <u>NO</u> Other (Explain in Remarks) |
|---|--|

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|--|--------------------|--|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & J LHunter | Project No: | Date: 20-Nov-2004 County: Rensselaer State: New York Plot ID: 1 |
|--|--------------------|--|

SOILS

| | |
|---|---|
| Map Unit Name (Series and Phase): Nassau-Manlius Complex, rolling Map Symbol: Nac Drainage Class: well to excessively drained Taxonomy (Subgroup): Lithic and Typic Dystrudepts Profile Description | Mapped Hydric Inclusion? Field Observations Confirm Mapped Type? Yes <input type="radio"/> No <input checked="" type="radio"/> |
|---|---|

| Depth (inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Color (Munsell Moist) | Mottle Abundance/Contrast | | Texture, Concretions, Structure, etc |
|----------------|---------|------------------------------|------------------------------|---------------------------|-----------------------|--------------------------------------|
| 2-0 | 0 | N/A | N/A | N/A | N/A | Silt loam |
| 0-10 | A | 10YR2/1 | 10YR6/8 7.5YR6/8 | Many | Distinct | Silt, Gravelly |
| 10+ | Bg | 2.5Y5/3 | 2.5Y3/1 10YR5/8 | Many | Distinct Prominent | Silt |

| | |
|---|---|
| Hydric Soil Indicators: <u>NO</u> Histosol <u>NO</u> Histic Epipedon <u>NO</u> Sulfidic Odor <u>NO</u> Aquic Moisture Regime <u>YES</u> Reducing Conditions <u>YES</u> Gleyed or Low Chroma Colors | <u>YES</u> Concretions <u>NO</u> High Organic Content in Surface Layer in Sandy Soils <u>NO</u> Organic Streaking in Sandy Soils <u>NO</u> Listed on Local Hydric Soils List <u>NO</u> Listed on National Hydric Soils List <u>NO</u> Other (Explain in Remarks) |
|---|---|

Remarks:

WETLAND DETERMINATION

| | |
|---|--|
| Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes No Wetland Hydrology Present? <input checked="" type="radio"/> Yes No Hydric Soils Present? <input checked="" type="radio"/> Yes No | Is the Sampling Point within the Wetland? <input checked="" type="radio"/> Yes No |
|---|--|

Remarks:

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|--|--------------------|--|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & JHunter | Project No: | Date: 20-Nov-2004 County: Rensselaer State: New York Plot ID: 2 |
|--|--------------------|--|

| | |
|---|--|
| Do Normal Circumstances exist on the site? Yes <input checked="" type="radio"/> No <input type="radio"/> Is the site significantly disturbed (Atypical Situation)? Yes <input type="radio"/> No <input checked="" type="radio"/> Is the area a potential Problem Area? Yes <input type="radio"/> No <input checked="" type="radio"/> (If needed, explain on the reverse side) | Community ID: Upland Forest Transect ID: UP "A" Field Location: |
|---|--|

VEGETATION

(USFWS Region No. 1)

| Dominant Plant Species(Latin/Common) | Stratum | Indicator | Plant Species(Latin/Common) | Stratum | Indicator |
|---|---------|-----------|---|---------|-----------|
| <i>Alliaria petiolata</i> Mustard, Garlic | Herb | FACU- | <i>Prunus serotina</i> Cherry, Black | Shrub | FACU |
| <i>Agrostis perennans</i> Bentgrass, Perennial | Herb | FACU | <i>Prunus serotina</i> Cherry, Black | Tree | FACU |
| <i>Acer rubrum</i> Maple, Red | Shrub | FAC | <i>Acer saccharum</i> Maple, Sugar | Tree | FACU- |
| <i>Acer saccharum</i> Maple, Sugar | Shrub | FACU- | <i>Acer rubrum</i> Maple, Red | Tree | FAC |
| <i>Amelanchier canadensis</i> Service-Berry, Oblong-Leaf | Shrub | FAC | | | |
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|---|--|
| Percent of Dominant Species that are OBL, FACW or FAC: (excluding FAC-) 3/9 = 33.33% | FAC Neutral: 0/6 = 0.00% Numeric Index: 33/9 = 3.67 |
|---|--|

Remarks:

HYDROLOGY

| | |
|--|---|
| <u>NO</u> Recorded Data(Describe in Remarks): <u>N/A</u> Stream, Lake or Tide Gauge <u>N/A</u> Aerial Photographs <u>N/A</u> Other <u>YES</u> No Recorded Data Field Observations Depth of Surface Water: N/A (in.) Depth to Free Water in Pit: N/A (in.) Depth to Saturated Soil: N/A (in.) | Wetland Hydrology Indicators Primary Indicators <u>NO</u> Inundated <u>NO</u> Saturated in Upper 12 Inches <u>NO</u> Water Marks <u>NO</u> Drift Lines <u>NO</u> Sediment Deposits <u>NO</u> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <u>NO</u> Oxidized Root Channels in Upper 12 Inches <u>NO</u> Water-Stained Leaves <u>NO</u> Local Soil Survey Data <u>NO</u> FAC-Neutral Test <u>NO</u> Other (Explain in Remarks) |
|--|---|

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|--|--------------------|--|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & JHunter | Project No: | Date: 20-Nov-2004 County: Rensselaer State: New York Plot ID: 2 |
|--|--------------------|--|

SOILS

| | |
|---|---|
| Map Unit Name (Series and Phase): Nassau-Manlius Complex, rolling Map Symbol: Nac Drainage Class: well to excessively drained Taxonomy (Subgroup): Lithic and Typic Dystrudepts Profile Description | Mapped Hydric Inclusion? Field Observations Confirm Mapped Type? <input checked="" type="radio"/> Yes <input type="radio"/> No |
|---|---|

| Depth (inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Color (Munsell Moist) | Mottle Abundance/Contrast | | Texture, Concretions, Structure, etc |
|----------------|---------|------------------------------|------------------------------|---------------------------|-----|--------------------------------------|
| 2-0 | 0 | N/A | N/A | N/A | N/A | Silt loam |
| 0-10 | A | 10YR4/4 | N/A | N/A | N/A | Silt, Gravelly |
| 10+ | B | 10YR4/6 | N/A | N/A | N/A | Silt, Gravelly |

| | |
|---|--|
| Hydric Soil Indicators: <u>NO</u> Histosol <u>NO</u> Histic Epipedon <u>NO</u> Sulfidic Odor <u>NO</u> Aquic Moisture Regime <u>NO</u> Reducing Conditions <u>NO</u> Gleyed or Low Chroma Colors | <u>NO</u> Concretions <u>NO</u> High Organic Content in Surface Layer in Sandy Soils <u>NO</u> Organic Streaking in Sandy Soils <u>NO</u> Listed on Local Hydric Soils List <u>NO</u> Listed on National Hydric Soils List <u>NO</u> Other (Explain in Remarks) |
|---|--|

Remarks:
 Depth of pit 14".

WETLAND DETERMINATION

| | |
|---|--|
| Hydrophytic Vegetation Present? Yes <input type="radio"/> <input checked="" type="radio"/> No Wetland Hydrology Present? Yes <input type="radio"/> <input checked="" type="radio"/> No Hydric Soils Present? Yes <input type="radio"/> <input checked="" type="radio"/> No | Is the Sampling Point within the Wetland? Yes <input type="radio"/> <input checked="" type="radio"/> No |
|---|--|

Remarks:

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|--|--------------------|--|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & JHunter | Project No: | Date: 20-Nov-2004 County: Rensselaer State: New York Plot ID: 3 |
|--|--------------------|--|

| | |
|---|--|
| Do Normal Circumstances exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? (If needed, explain on the reverse side) | Community ID: PSSE / scrub shrub Transect ID: WET "B" Field Location: |
|---|--|

VEGETATION (USFWS Region No. 1)

| Dominant Plant Species(Latin/Common) | Stratum | Indicator | Plant Species(Latin/Common) | Stratum | Indicato |
|---|---------|-----------|--|---------|----------|
| <i>Solidago uliginosa</i> Golden-Rod,Bog | Herb | OBL | <i>Cornus foemina</i> Dogwood,Stiff | Shrub | FAC |
| <i>Polygonum sagittatum</i> Tearthumb,Arrow-Leaf | Herb | OBL | <i>Fraxinus pennsylvanica</i> Ash,Green | Shrub | FACW |
| <i>Onoclea sensibilis</i> Fern,Sensitive | Herb | FACW | <i>Fraxinus pennsylvanica</i> Ash,Green | Tree | FACW |
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|---|--|
| Percent of Dominant Species that are OBL, FACW or FAC: (excluding FAC-) 6/6 = 100.00% | FAC Neutral: 5/5 = 100.00% Numeric Index: 11/6 = 1.83 |
|---|--|

Remarks:

HYDROLOGY

| | |
|---|---|
| <u>NO</u> Recorded Data(Describe in Remarks): <u>N/A</u> Stream, Lake or Tide Gauge <u>N/A</u> Aerial Photographs <u>N/A</u> Other <u>YES</u> No Recorded Data Field Observations Depth of Surface Water: N/A (in.) Depth to Free Water in Pit: N/A (in.) Depth to Saturated Soil: = 0 (in.) | Wetland Hydrology Indicators Primary Indicators <u>NO</u> Inundated <u>YES</u> Saturated in Upper 12 Inches <u>NO</u> Water Marks <u>NO</u> Drift Lines <u>NO</u> Sediment Deposits <u>NO</u> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <u>NO</u> Oxidized Root Channels in Upper 12 Inches <u>NO</u> Water-Stained Leaves <u>NO</u> Local Soil Survey Data <u>YES</u> FAC-Neutral Test <u>NO</u> Other (Explain in Remarks) |
|---|---|

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|--|--------------------|--|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & J LHunter | Project No: | Date: 20-Nov-2004 County: Rensselaer State: New York Plot ID: 3 |
|--|--------------------|--|

SOILS

| | |
|---|---|
| Map Unit Name (Series and Phase): Nassau-Manlius Complex, rolling Map Symbol: Nac Drainage Class: well to excessively drained Taxonomy (Subgroup): Lithic and Typic Dystrudepts Profile Description | Mapped Hydric Inclusion? Field Observations Confirm Mapped Type? Yes <input type="radio"/> No <input checked="" type="radio"/> |
|---|---|

| Depth (inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Color (Munsell Moist) | Mottle Abundance/Contrast | | Texture, Concretions, Structure, etc |
|----------------|---------|------------------------------|------------------------------|---------------------------|----------------------|--------------------------------------|
| 3-0 | 0 | N/A | N/A | N/A | N/A | Silty clay loam |
| 0-3 | A | 10YR3/2 | 10YR5/8 | Few | Distinct | Silty clay, Gravelly |
| 3+ | Bg | 2.5Y3/2 | 10YR4/1 10YR4/6 | Many Common | Distinct Distinct | Silty clay, Trace gravel |

| | |
|---|---|
| Hydric Soil Indicators: <u>NO</u> Histosol <u>NO</u> Histic Epipedon <u>NO</u> Sulfidic Odor <u>NO</u> Aquic Moisture Regime <u>YES</u> Reducing Conditions <u>YES</u> Gleyed or Low Chroma Colors | <u>YES</u> Concretions <u>NO</u> High Organic Content in Surface Layer in Sandy Soils <u>NO</u> Organic Streaking in Sandy Soils <u>NO</u> Listed on Local Hydric Soils List <u>NO</u> Listed on National Hydric Soils List <u>NO</u> Other (Explain in Remarks) |
|---|---|

Remarks:
 Depth of pit 16"

WETLAND DETERMINATION

| | |
|--|---|
| Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes <input type="radio"/> No Wetland Hydrology Present? <input checked="" type="radio"/> Yes <input type="radio"/> No Hydric Soils Present? <input checked="" type="radio"/> Yes <input type="radio"/> No | Is the Sampling Point within the Wetland? <input checked="" type="radio"/> Yes <input type="radio"/> No |
|--|---|

Remarks:

**ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)**

| | | |
|--|--------------------|--|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & JHunter | Project No: | Date: 20-Nov-2004 County: Rensselaer State: New York Plot ID: 4 |
|--|--------------------|--|

| | |
|---|--|
| Do Normal Circumstances exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? Yes <input type="radio"/> <input checked="" type="radio"/> No Is the area a potential Problem Area? Yes <input type="radio"/> <input checked="" type="radio"/> No (If needed, explain on the reverse side) | Community ID: Upland Forest Transect ID: UP "B" Field Location: |
|---|--|

VEGETATION (USFWS Region No. 1)

| Dominant Plant Species(Latin/Common) | Stratum | Indicator | Plant Species(Latin/Common) | Stratum | Indicator |
|---|---------|-----------|---|---------|-----------|
| <i>Alliaria petiolata</i> Mustard, Garlic | Herb | FACU- | <i>Prunus serotina</i> Cherry, Black | Tree | FACU |
| <i>Dryopteris marginalis</i> Shield-Fern, Marginal | Herb | FACU- | <i>Acer saccharum</i> Maple, Sugar | Tree | FACU- |
| <i>Carex pensylvanica</i> Pennsylvania Sedge | Herb | NI | <i>Fraxinus americana</i> Ash, White | Tree | FACU |
| <i>Lonicera tatarica</i> Honeysuckle, Tartarian | Shrub | FACU* | <i>Malus spp.</i> Crab Apple | Tree | NI |
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|--|--|
| Percent of Dominant Species that are OBL, FACW or FAC: (excluding FAC-) 0/6 = 0.00% | FAC Neutral: 0/6 = 0.00% Numeric Index: 24/6 = 4.00 |
|--|--|

Remarks:

HYDROLOGY

| | |
|--|---|
| <u>NO</u> Recorded Data(Describe in Remarks): <u>N/A</u> Stream, Lake or Tide Gauge <u>N/A</u> Aerial Photographs <u>N/A</u> Other <u>YES</u> No Recorded Data Field Observations Depth of Surface Water: N/A (in.) Depth to Free Water in Pit: N/A (in.) Depth to Saturated Soil: N/A (in.) | Wetland Hydrology Indicators Primary Indicators <u>NO</u> Inundated <u>NO</u> Saturated in Upper 12 Inches <u>NO</u> Water Marks <u>NO</u> Drift Lines <u>NO</u> Sediment Deposits <u>NO</u> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <u>NO</u> Oxidized Root Channels in Upper 12 Inches <u>NO</u> Water-Stained Leaves <u>NO</u> Local Soil Survey Data <u>NO</u> FAC-Neutral Test <u>NO</u> Other (Explain in Remarks) |
|--|---|

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|---|--------------------|--|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & J.L.Hunter | Project No: | Date: 20-Nov-2004 County: Rensselaer State: New York Plot ID: 4 |
|---|--------------------|--|

SOILS

Map Unit Name (Series and Phase): Nassau-Manlius Complex, rolling
Map Symbol: Nac **Drainage Class:** well to excessively drained
Taxonomy (Subgroup): Lithic and Typic Dystrudepts

Mapped Hydric Inclusion?
Field Observations Confirm Mapped Type? Yes No

Profile Description

| Depth (inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Color (Munsell Moist) | Mottle Abundance/Contrast | Mottle | Texture, Concretions, Structure, etc |
|----------------|---------|------------------------------|------------------------------|---------------------------|--------|--------------------------------------|
| 2-0 | O | N/A | N/A | N/A | N/A | Silt loam, Trace gravel |
| 0-12 | A | 10YR3/4 | N/A | N/A | N/A | Silty clay, Trace gravel |
| 12+ | B | 10YR4/4 | N/A | N/A | N/A | Silty clay, Trace gravel |

Hydric Soil Indicators:

| | |
|---|--|
| <u>NO</u> Histosol <u>NO</u> Histic Epipedon <u>NO</u> Sulfidic Odor <u>NO</u> Aquic Moisture Regime <u>NO</u> Reducing Conditions <u>NO</u> Gleyed or Low Chroma Colors | <u>NO</u> Concretions <u>NO</u> High Organic Content in Surface Layer in Sandy Soils <u>NO</u> Organic Streaking in Sandy Soils <u>NO</u> Listed on Local Hydric Soils List <u>NO</u> Listed on National Hydric Soils List <u>NO</u> Other (Explain in Remarks) |
|---|--|

Remarks:

WETLAND DETERMINATION

| | |
|---|--|
| Hydrophytic Vegetation Present? Yes <input type="radio"/> <input checked="" type="radio"/> No Wetland Hydrology Present? Yes <input type="radio"/> <input checked="" type="radio"/> No Hydric Soils Present? Yes <input type="radio"/> <input checked="" type="radio"/> No | Is the Sampling Point within the Wetland? Yes <input type="radio"/> <input checked="" type="radio"/> No |
|---|--|

Remarks:

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|---|--------------------|--|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & J.L.Hunter | Project No: | Date: 20-Nov-2004 County: Rensselaer State: New York Plot ID: 5 |
|---|--------------------|--|

| | |
|--|--|
| Do Normal Circumstances exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation:)? Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? (If needed, explain on the reverse side) | Community ID: PSSE / scrub-shrub Transect ID: WET "C" Field Location: |
|--|--|

VEGETATION (USFWS Region No. 1)

| Dominant Plant Species(Latin/Common) | Stratum | Indicator | Plant Species(Latin/Common) | Stratum | Indicator |
|--|---------|-----------|--|---------|-----------|
| <i>Polygonum sagittatum</i> Tea thumb, Arrow-Leaf | Herb | OBL | <i>Carex lurida</i> Sedge, Shallow | Herb | OBL |
| <i>Juncus effusus</i> Rush, Soft | Herb | FACW+ | <i>Eupatorium perfoliatum</i> Boneset, Common | Herb | FACW+ |
| <i>Spiraea tomentosa</i> Steeple-Bush | Herb | FACW | <i>Glyceria striata</i> Grass, Fowl Manna | Herb | OBL |
| <i>Verbena hastata</i> Vervain, Blue | Herb | FACW+ | <i>Carex stricta</i> Sedge, Upright | Herb | OBL |
| <i>Lythrum salicaria</i> Loosestrife, Purple | Herb | FACW+ | <i>Comus amomum</i> Dogwood, Silky | Shrub | FACW |
| <i>Osmunda cinnamomea</i> Fern, Cinnamon | Herb | FACW | <i>Comus foemina</i> Dogwood, Stiff | Shrub | FAC |
| | | | | | |
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| | |
|---|---|
| Percent of Dominant Species that are OBL, FACW or FAC: (excluding FAC-) 12/12 = 100.00% | FAC Neutral: 11/11 = 100.00% Numeric Index: 21/12 = 1.75 |
|---|---|

Remarks:

HYDROLOGY

| | |
|---|---|
| <u>NO</u> Recorded Data(Describe in Remarks): <u>N/A</u> Stream, Lake or Tide Gauge <u>N/A</u> Aerial Photographs <u>N/A</u> Other <u>YES</u> No Recorded Data Field Observations Depth of Surface Water: +/- 1 (in.) Depth to Free Water in Pit: N/A (in.) Depth to Saturated Soil: N/A (in.) | Wetland Hydrology Indicators Primary Indicators <u>YES</u> Inundated <u>YES</u> Saturated in Upper 12 Inches <u>NO</u> Water Marks <u>NO</u> Drift Lines <u>NO</u> Sediment Deposits <u>NO</u> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <u>YES</u> Oxidized Root Channels in Upper 12 Inches <u>NO</u> Water-Stained Leaves <u>NO</u> Local Soil Survey Data <u>YES</u> FAC-Neutral Test <u>NO</u> Other (Explain in Remarks) |
|---|---|

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|--|--------------------|--|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & JHunter | Project No: | Date: 20-Nov-2004 County: Rensselaer State: New York Plot ID: 5 |
|--|--------------------|--|

SOILS

Map Unit Name (Series and Phase): Bernadston-Nassau Complex, rolling
Map Symbol: BnC **Drainage Class:** well to somewhat excessively **Mapped Hydric Inclusion?**
Taxonomy (Subgroup): Oxyaquic and Lithic Dystrudepts **Field Observations Confirm Mapped Type?** Yes No

Profile Description

| Depth (inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Color (Munsell Moist) | Mottle Abundance/Contrast | | Texture, Concretions, Structure, etc |
|----------------|---------|------------------------------|------------------------------|---------------------------|-----------------------|--------------------------------------|
| 3-0 | 0 | N/A | N/A | N/A | N/A | Silty clay loam |
| 0-9 | A | 10YR3/1 | 2.5Y5/4 7.5YR5/8 | Common Many | Prominent Distinct | Silty clay |
| 9+ | Bg | 2.5Y4/2 | 7.5YR5/8 | Many | Prominent | Silty clay |

Hydric Soil Indicators:

| | |
|---|---|
| <u>NO</u> Histosol <u>NO</u> Histic Epipedon <u>NO</u> Sulfidic Odor <u>NO</u> Aquic Moisture Regime <u>YES</u> Reducing Conditions <u>YES</u> Gleyed or Low Chroma Colors | <u>YES</u> Concretions <u>NO</u> High Organic Content in Surface Layer in Sandy Soils <u>NO</u> Organic Streaking in Sandy Soils <u>NO</u> Listed on Local Hydric Soils List <u>NO</u> Listed on National Hydric Soils List <u>NO</u> Other (Explain in Remarks) |
|---|---|

Remarks:

WETLAND DETERMINATION

| | |
|--|---|
| Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes <input type="radio"/> No Wetland Hydrology Present? <input checked="" type="radio"/> Yes <input type="radio"/> No Hydric Soils Present? <input checked="" type="radio"/> Yes <input type="radio"/> No | Is the Sampling Point within the Wetland? <input checked="" type="radio"/> Yes <input type="radio"/> No |
|--|---|

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|--|--------------------|--|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & JLDHunter | Project No: | Date: 20-Nov-2004 County: Rensselaer State: New York Plot ID: 6 |
|--|--------------------|--|

SOILS

| | | | |
|---|--|---|---------------------------------|
| Map Unit Name (Series and Phase): Bernadston-Nassau Complex, rolling | Map Symbol: BnC | Drainage Class: well to somewhat excessively | Mapped Hydric Inclusion? |
| Taxonomy (Subgroup): Oxyaquic and Lithic Dystrudepts | Field Observations Confirm Mapped Type? <input checked="" type="radio"/> Yes <input type="radio"/> No | | |

Profile Description

| Depth (inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Color (Munsell Moist) | Mottle Abundance/Contrast | | Texture, Concretions, Structure, etc |
|----------------|---------|------------------------------|------------------------------|---------------------------|-----|--------------------------------------|
| 2-0 | O | N/A | N/A | N/A | N/A | Silt loam |
| 0-12 | A | 10YR4/4 | N/A | N/A | N/A | Silty clay, Trace gravel |
| 12+ | B | 10YR5/6 | N/A | N/A | N/A | Silty clay, Trace gravel |

Hydric Soil Indicators:

| | |
|---|--|
| <u>NO Histosol</u> <u>NO Histic Epipedon</u> <u>NO Sulfidic Odor</u> <u>NO Aquic Moisture Regime</u> <u>NO Reducing Conditions</u> <u>NO Gleyed or Low Chroma Colors</u> | <u>NO Concretions</u> <u>NO High Organic Content in Surface Layer in Sandy Soils</u> <u>NO Organic Streaking in Sandy Soils</u> <u>NO Listed on Local Hydric Soils List</u> <u>NO Listed on National Hydric Soils List</u> <u>NO Other (Explain in Remarks)</u> |
|---|--|

Remarks:
 Depth of pit 18".

WETLAND DETERMINATION

| | |
|---|--|
| Hydrophytic Vegetation Present? Yes <input type="radio"/> <input checked="" type="radio"/> No Wetland Hydrology Present? Yes <input type="radio"/> <input checked="" type="radio"/> No Hydric Soils Present? Yes <input type="radio"/> <input checked="" type="radio"/> No | Is the Sampling Point within the Wetland? Yes <input type="radio"/> <input checked="" type="radio"/> No |
|---|--|

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|--|--------------------|--|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & JHunter | Project No: | Date: 20-Nov-2004 County: Rensselaer State: New York Plot ID: 7 |
|--|--------------------|--|

| | |
|--|--|
| Do Normal Circumstances exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation:)? <input type="radio"/> Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? <input type="radio"/> Yes <input checked="" type="radio"/> No (If needed, explain on the reverse side) | Community ID: PFO / forested wetland Transect ID: WET "D" Field Location: |
|--|--|

VEGETATION (USFWS Region No. 1)

| Dominant Plant Species(Latin/Common) | Stratum | Indicator | Plant Species(Latin/Common) | Stratum | Indicator |
|--|---------|-----------|--|---------|-----------|
| <i>Carex stricta</i> Sedge,Uptight | Herb | OBL | <i>Amelanchier canadensis</i> Service-Berry,Oblong-Leaf | Shrub | FAC |
| <i>Epilobium coloratum</i> Willow-Herb,Purple-Leaf | Herb | OBL | <i>Ulmus americana</i> Elm,American | Tree | FACW- |
| <i>Rubus hispidus</i> Blackberry,Bristly | Herb | FACW | <i>Acer rubrum</i> Maple,Red | Tree | FAC |
| <i>Lonicera oblongifolia</i> Fly-Honey-Suckle,Swamp | Shrub | OBL | <i>Fraxinus pennsylvanica</i> Ash,Green | Tree | FACW |
| <i>Cornus amomum</i> Dogwood,Silky | Shrub | FACW | <i>Carya ovata</i> Hickory,Shag-Bark | Tree | FACU- |
| | | | | | |
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| | |
|--|--|
| Percent of Dominant Species that are OBL, FACW or FAC: (excluding FAC-) 9/10 = 90.00% | FAC Neutral: 7/8 = 87.50% Numeric Index: 21/10 = 2.10 |
|--|--|

Remarks:

HYDROLOGY

| | |
|--|--|
| <u>NO</u> Recorded Data(Describe in Remarks): <u>N/A</u> Stream, Lake or Tide Gauge <u>N/A</u> Aerial Photographs <u>N/A</u> Other <u>YES</u> No Recorded Data Field Observations Depth of Surface Water: +/- 1 (in.) Depth to Free Water in Pit: N/A (in.) Depth to Saturated Soil: N/A (in.) | Wetland Hydrology Indicators Primary Indicators <u>YES</u> Inundated <u>YES</u> Saturated in Upper 12 Inches <u>NO</u> Water Marks <u>NO</u> Drift Lines <u>NO</u> Sediment Deposits <u>NO</u> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <u>YES</u> Oxidized Root Channels in Upper 12 Inches <u>YES</u> Water-Stained Leaves <u>NO</u> Local Soil Survey Data <u>YES</u> FAC-Neutral Test <u>NO</u> Other (Explain in Remarks) |
|--|--|

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|--|--------------------|--|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & JHunter | Project No: | Date: 20-Nov-2004 County: Rensselaer State: New York Plot ID: 7 |
|--|--------------------|--|

SOILS

| | |
|--|---|
| Map Unit Name (Series and Phase): Bernadston-Nassau Complex, rolling Map Symbol: BnC Drainage Class: well to somewhat excessively Taxonomy (Subgroup): Oxyaquic and Lithic Dystrudepts Profile Description | Mapped Hydric Inclusion? Field Observations Confirm Mapped Type? Yes <input type="radio"/> No <input checked="" type="radio"/> |
|--|---|

| Depth (inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Color (Munsell Moist) | Mottle Abundance/Contrast | | Texture, Concretions, Structure, etc |
|----------------|---------|------------------------------|------------------------------|---------------------------|----------------------|--------------------------------------|
| 2-0 | O | N/A | N/A | N/A | N/A | Silt loam |
| 0-8 | A | 10YR3/1 | 2.5Y5/3 | Few | Prominent | Silty clay |
| 8+ | Bg | 10YR4/1 | 7.5YR5/2 7.5YR4/4 | Few Many | Distinct Distinct | Silty clay, Trace gravel |

| | |
|--|---|
| Hydric Soil Indicators: <u>NO</u> Histosol <u>NO</u> Histic Epipedon <u>NO</u> Sulfidic Odor <u>NO</u> Aquic Moisture Regime <u>NO</u> Reducing Conditions <u>YES</u> Gleyed or Low Chroma Colors | <u>YES</u> Concretions <u>NO</u> High Organic Content in Surface Layer in Sandy Soils <u>NO</u> Organic Streaking in Sandy Soils <u>NO</u> Listed on Local Hydric Soils List <u>NO</u> Listed on National Hydric Soils List <u>NO</u> Other (Explain in Remarks) |
|--|---|

Remarks:
 Depth of pit 18"

WETLAND DETERMINATION

| | |
|--|---|
| Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes <input type="radio"/> No Wetland Hydrology Present? <input checked="" type="radio"/> Yes <input type="radio"/> No Hydric Soils Present? <input checked="" type="radio"/> Yes <input type="radio"/> No | Is the Sampling Point within the Wetland? <input checked="" type="radio"/> Yes <input type="radio"/> No |
|--|---|

Remarks:

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|--|--------------------|--|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & JH Hunter | Project No: | Date: 20-Nov-2004 County: Rensselaer State: New York Plot ID: 8 |
|--|--------------------|--|

| | |
|---|--|
| Do Normal Circumstances exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? (If needed, explain on the reverse side) Yes <input checked="" type="radio"/> No | Community ID: Upland Forest Transect ID: UP "D" Field Location: |
|---|--|

VEGETATION (USFWS Region No. 1)

| Dominant Plant Species(Latin/Common) | Stratum | Indicator | Plant Species(Latin/Common) | Stratum | Indicator |
|---|---------|-----------|---|---------|-----------|
| <i>Carex pennsylvanica</i> Pennsylvania Sedge | Herb | NI | <i>Ostrya virginiana</i> Hop-Hornbeam, Eastern | Tree | FACU- |
| <i>Ostrya virginiana</i> Hop-Hornbeam, Eastern | Shrub | FACU- | <i>Quercus rubra</i> Oak, Northern Red | Tree | FACU- |
| <i>Acer saccharum</i> Maple, Sugar | Shrub | FACU- | <i>Pinus strobus</i> Pine, Eastern White | Tree | FACU |
| <i>Acer saccharum</i> Maple, Sugar | Tree | FACU- | <i>Tsuga canadensis</i> Hemlock, Eastern | Tree | FACU |
| | | | | | |
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| | |
|---|--|
| Percent of Dominant Species that are OBL, FACW or FAC: (excluding FAC-) 0/7 = 0.00% | FAC Neutral: 0/7 = 0.00% Numeric Index: 28/7 = 4.00 |
|---|--|

Remarks:

HYDROLOGY

| | |
|---|---|
| <u>NO</u> Recorded Data(Describe in Remarks): <u>N/A</u> Stream, Lake or Tide Gauge <u>N/A</u> Aerial Photographs <u>N/A</u> Other <u>YES</u> No Recorded Data Field Observations Depth of Surface Water: N/A (in.) Depth to Free Water in Pit: N/A (in.) Depth to Saturated Soil: N/A (in.) | Wetland Hydrology Indicators Primary Indicators <u>NO</u> Inundated <u>NO</u> Saturated in Upper 12 Inches <u>NO</u> Water Marks <u>NO</u> Drift Lines <u>NO</u> Sediment Deposits <u>NO</u> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <u>NO</u> Oxidized Root Channels in Upper 12 Inches <u>NO</u> Water-Stained Leaves <u>NO</u> Local Soil Survey Data <u>NO</u> FAC-Neutral Test <u>NO</u> Other (Explain in Remarks) |
|---|---|

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|--|--------------------|--|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & JHunter | Project No: | Date: 20-Nov-2004 County: Rensselaer State: New York Plot ID: 8 |
|--|--------------------|--|

SOILS

| | |
|--|---|
| Map Unit Name (Series and Phase): Bernadston-Nassau Complex, rolling Map Symbol: BnC Drainage Class: well to somewhat excessively Taxonomy (Subgroup): Oxyaquic and Lithic Dystrudepts Profile Description | Mapped Hydric Inclusion? Field Observations Confirm Mapped Type? <input checked="" type="radio"/> Yes <input type="radio"/> No |
|--|---|

| Depth (inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Color (Munsell Moist) | Mottle Abundance/Contrast | | Texture, Concretions, Structure, etc |
|----------------|---------|------------------------------|------------------------------|---------------------------|-----|--------------------------------------|
| 2-0 | 0 | N/A | N/A | N/A | N/A | Loam, Gravelly |
| 0-8 | A | 10YR3/4 | N/A | N/A | N/A | Silt loam, Trace gravel |
| 8+ | B | 10YR5/4 | N/A | N/A | N/A | Silty clay |

| | |
|---|--|
| Hydric Soil Indicators: <u>NO</u> Histosol <u>NO</u> Histic Epipedon <u>NO</u> Sulfidic Odor <u>NO</u> Aquic Moisture Regime <u>NO</u> Reducing Conditions <u>NO</u> Gleyed or Low Chroma Colors | <u>NO</u> Concretions <u>NO</u> High Organic Content in Surface Layer in Sandy Soils <u>NO</u> Organic Streaking in Sandy Soils <u>NO</u> Listed on Local Hydric Soils List <u>NO</u> Listed on National Hydric Soils List <u>NO</u> Other (Explain in Remarks) |
|---|--|

Remarks:
 Depth of pit 16"

WETLAND DETERMINATION

| | |
|---|--|
| Hydrophytic Vegetation Present? Yes <input type="radio"/> <input checked="" type="radio"/> No Wetland Hydrology Present? Yes <input type="radio"/> <input checked="" type="radio"/> No Hydric Soils Present? Yes <input type="radio"/> <input checked="" type="radio"/> No | Is the Sampling Point within the Wetland? Yes <input type="radio"/> <input checked="" type="radio"/> No |
|---|--|

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|--|--------------------|---|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & JH Hunter | Project No: | Date: 28-Jul-2005 County: Rensselaer State: New York Plot ID: 35 |
|--|--------------------|---|

SOILS

| | |
|---|--|
| Map Unit Name (Series and Phase): Scriba silt loam Map Symbol: SrB Drainage Class: Somewhat poorly drained Taxonomy (Subgroup): Aerlic Fragiaquepts Profile Description | Mapped Hydric Inclusion? Field Observations Confirm Mapped Type? Yes <input type="radio"/> No <input checked="" type="radio"/> |
|---|--|

| Depth (inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Color (Munsell Moist) | Mottle Abundance/Contrast | | Texture, Concretions, Structure, etc |
|----------------|---------|------------------------------|------------------------------|---------------------------|-----------|--------------------------------------|
| 2-0 | 0 | N/A | N/A | N/A | N/A | Silty clay loam |
| 0-8 | A | 10YR3/1 | 10YR6/8 10YR4/4 | Many | Distinct | Silty clay |
| 8+ | Bg | 5G4/1 | 5BG6/1 | Common | Prominent | Clay |

Hydric Soil Indicators:

| | |
|--|--|
| <u>NO</u> Histosol <u>NO</u> Histic Epipedon <u>NO</u> Sulfidic Odor <u>NO</u> Aquic Moisture Regime <u>NO</u> Reducing Conditions <u>YES</u> Gleyed or Low Chroma Colors | <u>NO</u> Concretions <u>NO</u> High Organic Content in Surface Layer in Sandy Soils <u>NO</u> Organic Streaking in Sandy Soils <u>NO</u> Listed on Local Hydric Soils List <u>NO</u> Listed on National Hydric Soils List <u>NO</u> Other (Explain in Remarks) |
|--|--|

Remarks:

WETLAND DETERMINATION

| | |
|--|---|
| Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes <input type="radio"/> No Wetland Hydrology Present? <input checked="" type="radio"/> Yes <input type="radio"/> No Hydric Soils Present? <input checked="" type="radio"/> Yes <input type="radio"/> No | Is the Sampling Point within the Wetland? <input checked="" type="radio"/> Yes <input type="radio"/> No |
|--|---|

Remarks:

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|--|--------------------|---|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & JHunter | Project No: | Date: 28-Jul-2005 County: Rensselaer State: New York Plot ID: 36 |
|--|--------------------|---|

SOILS

Map Unit Name (Series and Phase): Bernardston gravelly silt loam 8-15% slopes
Map Symbol: BeC **Drainage Class:** Well drained **Mapped Hydric Inclusion?**
Taxonomy (Subgroup): Oxyaquic Dystrudepts **Field Observations Confirm Mapped Type?** Yes No

Profile Description

| Depth (inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Color (Munsell Moist) | Mottle Abundance/Contrast | Texture, Concretions, Structure, etc |
|----------------|---------|------------------------------|------------------------------|---------------------------|--------------------------------------|
| 4-0 | 0 | N/A | N/A | N/A N/A | Silt loam |
| 0-12 | A | 10YR4/3 | N/A | N/A N/A | Silt loam, Gravelly |

Hydric Soil Indicators:

| | |
|---|--|
| <u>NO</u> Histosol <u>NO</u> Histic Epipedon <u>NO</u> Sulfidic Odor <u>NO</u> Aquic Moisture Regime <u>NO</u> Reducing Conditions <u>NO</u> Gleyed or Low Chroma Colors | <u>NO</u> Concretions <u>NO</u> High Organic Content in Surface Layer in Sandy Soils <u>NO</u> Organic Streaking in Sandy Soils <u>NO</u> Listed on Local Hydric Soils List <u>NO</u> Listed on National Hydric Soils List <u>NO</u> Other (Explain in Remarks) |
|---|--|

Remarks:
 Refusal @ 14"

WETLAND DETERMINATION

| | |
|---|--|
| Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Hydric Soils Present? Yes <input type="radio"/> No <input checked="" type="radio"/> | Is the Sampling Point within the Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/> |
|---|--|

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|--|--------------------|---|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & JLDHunter | Project No: | Date: 21-Jul-2005 County: Rensselaer State: New York Plot ID: 31 |
|--|--------------------|---|

SOILS

| | | | |
|--|--|---|--|
| Map Unit Name (Series and Phase): Bernardston gravelly silt loam 8-15% slopes | | Mapped Hydric Inclusion? | |
| Map Symbol: BeC Drainage Class: Well drained | | Field Observations Confirm Mapped Type? Yes <input type="radio"/> No <input checked="" type="radio"/> | |
| Taxonomy (Subgroup): Oxyaquic Dystrudepts | | | |
| Profile Description | | | |

| Depth (inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Color (Munsell Moist) | Mottle Abundance/Contrast | Texture, Concretions, Structure, etc |
|----------------|---------|------------------------------|------------------------------|---------------------------|--------------------------------------|
| 0+ | 0 | N/A | N/A | N/A N/A | Silt loam |

| | |
|--|--|
| Hydric Soil Indicators: <u>NO</u> Histosol <u>YES</u> Histic Epipedon <u>NO</u> Sulfidic Odor <u>NO</u> Aquic Moisture Regime <u>NO</u> Reducing Conditions <u>NO</u> Gleyed or Low Chroma Colors | <u>NO</u> Concretions <u>NO</u> High Organic Content in Surface Layer in Sandy Soils <u>NO</u> Organic Streaking in Sandy Soils <u>NO</u> Listed on Local Hydric Soils List <u>NO</u> Listed on National Hydric Soils List <u>NO</u> Other (Explain in Remarks) |
|--|--|

Remarks:

WETLAND DETERMINATION

| | |
|---|---|
| Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes No | Is the Sampling Point within the Wetland? <input checked="" type="radio"/> Yes No |
| Wetland Hydrology Present? <input checked="" type="radio"/> Yes No | |
| Hydric Soils Present? <input checked="" type="radio"/> Yes No | |

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|--|--------------------|---|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & J LHunter | Project No: | Date: 21-Jul-2005 County: Rensselaer State: New York Plot ID: 32 |
|--|--------------------|---|

SOILS

| | |
|--|---|
| Map Unit Name (Series and Phase): Bernardston gravelly silt loam 8-15% slopes Map Symbol: BeC Drainage Class: Well drained Taxonomy (Subgroup): Oxyaquic Dystrudepts Profile Description | Mapped Hydric Inclusion? Field Observations Confirm Mapped Type? Yes <input type="radio"/> No <input checked="" type="radio"/> |
|--|---|

| Depth (inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Color (Munsell Moist) | Mottle Abundance/Contrast | | Texture, Concretions, Structure, etc |
|----------------|---------|------------------------------|------------------------------|---------------------------|-----|--------------------------------------|
| 4-0 | 0 | N/A | N/A | N/A | N/A | Silt loam |
| 0-11 | A | 10YR4/4 | N/A | N/A | N/A | Silt loam |
| 11+ | B | 10YR5/6 | N/A | N/A | N/A | Silt loam, Trace gravel |

Hydric Soil Indicators:

| | |
|---|--|
| <u>NO Histosol</u> <u>NO Histic Epipedon</u> <u>NO Sulfidic Odor</u> <u>NO Aquic Moisture Regime</u> <u>NO Reducing Conditions</u> <u>NO Gleyed or Low Chroma Colors</u> | <u>NO Concretions</u> <u>NO High Organic Content in Surface Layer in Sandy Soils</u> <u>NO Organic Streaking in Sandy Soils</u> <u>NO Listed on Local Hydric Soils List</u> <u>NO Listed on National Hydric Soils List</u> <u>NO Other (Explain in Remarks)</u> |
|---|--|

Remarks:

WETLAND DETERMINATION

| | |
|---|--|
| Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Hydric Soils Present? Yes <input type="radio"/> No <input checked="" type="radio"/> | Is the Sampling Point within the Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/> |
|---|--|

Remarks:

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|--|--------------------|---|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & JHunter | Project No: | Date: 21-Jul-2005 County: Rensselaer State: New York Plot ID: 26 |
|--|--------------------|---|

| | |
|---|--|
| Do Normal Circumstances exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? (If needed, explain on the reverse side) Yes <input checked="" type="radio"/> No | Community ID: PSSE / scrub-shrub Transect ID: WET "G" Field Location: |
|---|--|

VEGETATION (USFWS Region No. 1)

| Dominant Plant Species(Latin/Common) | Stratum | Indicator | Plant Species(Latin/Common) | Stratum | Indicator |
|--|---------|-----------|--|---------|-----------|
| <i>Scirpus cyperinus</i> Wool-Grass | Herb | FACW+ | <i>Polygonum sagittatum</i> Tearthumb, Arrow-Leaf | Herb | OBL |
| <i>Leersia oryzoides</i> Cutgrass, Rice | Herb | OBL | <i>Lonicera canadensis</i> Fly-Honey-Suckle, American | Shrub | FACU |
| <i>Onoclea sensibilis</i> Fern, Sensitive | Herb | FACW | <i>Rosa multiflora</i> Rose, Multiflora | Shrub | FACU |
| <i>Carex x stipata</i> Sedge, Stalk-Grain | Herb | OBL | <i>Comus foemina</i> Dogwood, Stiff | Shrub | FAC |
| <i>Carex lurida</i> Sedge, Shallow | Herb | OBL | <i>Fraxinus pennsylvanica</i> Ash, Green | Tree | FACW |
| <i>Eupatoriadelphus maculatus</i> Joe-Pye-Weed, Spotted | Herb | FACW | <i>Rhus typhina</i> Sumac, Staghorn | Tree | NI |
| <i>Impatiens capensis</i> Touch-Me-Not, Spotted | Herb | FACW | | | |
| | | | | | |

| | |
|--|---|
| Percent of Dominant Species that are OBL, FACW or FAC: (excluding FAC-) 10/12 = 83.33% | FAC Neutral: 9/11 = 81.82% Numeric Index: 25/12 = 2.08 |
|--|---|

Remarks:

HYDROLOGY

| | |
|--|---|
| <u>NO</u> Recorded Data(Describe in Remarks): <u>N/A</u> Stream, Lake or Tide Gauge <u>N/A</u> Aerial Photographs <u>N/A</u> Other <u>YES</u> No Recorded Data Field Observations Depth of Surface Water: N/A (in.) Depth to Free Water in Pit: N/A (in.) Depth to Saturated Soil: = 0 (in.) | Wetland Hydrology Indicators Primary Indicators <u>NO</u> Inundated <u>YES</u> Saturated in Upper 12 Inches <u>NO</u> Water Marks <u>NO</u> Drift Lines <u>NO</u> Sediment Deposits <u>NO</u> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <u>NO</u> Oxidized Root Channels in Upper 12 Inches <u>NO</u> Water-Stained Leaves <u>NO</u> Local Soil Survey Data <u>YES</u> FAC-Neutral Test <u>NO</u> Other (Explain in Remarks) |
|--|---|

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|--|--------------------|---|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & JHunter | Project No: | Date: 21-Jul-2005 County: Rensselaer State: New York Plot ID: 26 |
|--|--------------------|---|

SOILS

| | |
|--|---|
| Map Unit Name (Series and Phase): Bernardston gravelly silt loam 15-25% slopes Map Symbol: BeD Drainage Class: Well Drained Taxonomy (Subgroup): Oxyaquic Dystrudept Profile Description | Mapped Hydric Inclusion? Field Observations Confirm Mapped Type? Yes <input type="radio"/> No <input checked="" type="radio"/> |
|--|---|

| Depth (inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Color (Munsell Moist) | Mottle Abundance/Contrast | | Texture, Concretions, Structure, etc |
|----------------|---------|------------------------------|------------------------------|---------------------------|-----------|--------------------------------------|
| 3-0 | 0 | N/A | N/A | N/A | N/A | Silty clay loam |
| 0-8 | A | 10YR4/2 | 10YR6/8 10YR4/1 | Many | Prominent | Silty clay |
| 8+ | B | 10YR3/1 | 10YR6/8 10YR6/1 | Many | Prominent | Silty clay |

Hydric Soil Indicators:

| | |
|--|--|
| <u>NO</u> Histosol <u>NO</u> Histic Epipedon <u>NO</u> Sulfidic Odor <u>NO</u> Aquic Moisture Regime <u>NO</u> Reducing Conditions <u>YES</u> Gleyed or Low Chroma Colors | <u>NO</u> Concretions <u>NO</u> High Organic Content in Surface Layer in Sandy Soils <u>NO</u> Organic Streaking in Sandy Soils <u>NO</u> Listed on Local Hydric Soils List <u>NO</u> Listed on National Hydric Soils List <u>NO</u> Other (Explain in Remarks) |
|--|--|

Remarks:
 depth pit 18"

WETLAND DETERMINATION

| | |
|---|--|
| Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes No Wetland Hydrology Present? <input checked="" type="radio"/> Yes No Hydric Soils Present? <input checked="" type="radio"/> Yes No | Is the Sampling Point within the Wetland? <input checked="" type="radio"/> Yes No |
|---|--|

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|--|--------------------|---|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & JH Hunter | Project No: | Date: 21-Jul-2005 County: Rensselaer State: New York Plot ID: 27 |
|--|--------------------|---|

| | | | |
|---|---|--|--|
| Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? (If needed, explain on the reverse side) | <input checked="" type="radio"/> Yes <input type="radio"/> Yes | <input type="radio"/> No <input checked="" type="radio"/> No <input checked="" type="radio"/> No | Community ID: Upland Forest Transect ID: UP "G" Field Location: |
|---|---|--|--|

VEGETATION (USFWS Region No. 1)

| Dominant Plant Species(Latin/Common) | Stratum | Indicator | Plant Species(Latin/Common) | Stratum | Indicator |
|---|---------|-----------|--|---------|-----------|
| <i>Carex pensylvanica</i> Pennsylvania Sedge | Herb | NI | <i>Rhamnus cathartica</i> Buckthorn, Common | Shrub | UPL |
| <i>Alliaria petiolata</i> Mustard, Garlic | Herb | FACU- | <i>Acer saccharum</i> Maple, Sugar | Shrub | FACU- |
| <i>Parthenocissus quinquefolia</i> Creeper, Virginia | Herb | FACU | <i>Acer saccharum</i> Maple, Sugar | Tree | FACU- |
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|---|--|
| Percent of Dominant Species that are OBL, FACW or FAC: (excluding FAC-) 0/5 = 0.00% | FAC Neutral: 0/5 = 0.00% Numeric Index: 21/5 = 4.20 |
|---|--|

Remarks:

HYDROLOGY

| | |
|---|---|
| NO Recorded Data(Describe in Remarks): <u>N/A Stream, Lake or Tide Gauge</u> <u>N/A Aerial Photographs</u> <u>N/A Other</u> YES No Recorded Data Field Observations Depth of Surface Water: N/A (in.) Depth to Free Water in Pit: N/A (in.) Depth to Saturated Soil: N/A (in.) | Wetland Hydrology Indicators Primary Indicators <u>NO Inundated</u> <u>NO Saturated in Upper 12 Inches</u> <u>NO Water Marks</u> <u>NO Drift Lines</u> <u>NO Sediment Deposits</u> <u>NO Drainage Patterns in Wetlands</u> Secondary Indicators (2 or more required): <u>NO Oxidized Root Channels in Upper 12 Inches</u> <u>NO Water-Stained Leaves</u> <u>NO Local Soil Survey Data</u> <u>NO FAC-Neutral Test</u> <u>NO Other (Explain in Remarks)</u> |
|---|---|

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|--|--------------------|---|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & JHunter | Project No: | Date: 21-Jul-2005 County: Rensselaer State: New York Plot ID: 27 |
|--|--------------------|---|

SOILS

Map Unit Name (Series and Phase): Bernardston gravelly silt loam 15-25% slopes
Map Symbol: BeD **Drainage Class:** Well Drained **Mapped Hydric Inclusion?**
Taxonomy (Subgroup): Oxyaquic Dystrudept **Field Observations Confirm Mapped Type?** Yes No

Profile Description

| Depth (inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Color (Munsell Moist) | Mottle Abundance/Contrast | | Texture, Concretions, Structure, etc |
|----------------|---------|------------------------------|------------------------------|---------------------------|-----|--------------------------------------|
| 3-0 | 0 | N/A | N/A | N/A | N/A | Silt loam |
| 0-6 | A | 10YR4/3 | N/A | N/A | N/A | Sandy silt loam, Trace gravel |
| 6+ | B | 10YR4/4 | N/A | N/A | N/A | Sandy silt loam, Gravelly |

Hydric Soil Indicators:

| | |
|---|--|
| <u>NO</u> Histosol <u>NO</u> Histic Epipedon <u>NO</u> Sulfidic Odor <u>NO</u> Aquic Moisture Regime <u>NO</u> Reducing Conditions <u>NO</u> Gleyed or Low Chroma Colors | <u>NO</u> Concretions <u>NO</u> High Organic Content in Surface Layer in Sandy Soils <u>NO</u> Organic Streaking in Sandy Soils <u>NO</u> Listed on Local Hydric Soils List <u>NO</u> Listed on National Hydric Soils List <u>NO</u> Other (Explain in Remarks) |
|---|--|

Remarks:
 Refusal @ 12"

WETLAND DETERMINATION

| | |
|---|---|
| Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> | Is the Sampling Point within the Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/> |
| Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/> | |
| Hydric Soils Present? Yes <input type="radio"/> No <input checked="" type="radio"/> | |

Remarks:

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|--|--------------------|---|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & JHunter | Project No: | Date: 21-Jul-2005 County: Rensselaer State: New York Plot ID: 28 |
|--|--------------------|---|

| | |
|---|--|
| Do Normal Circumstances exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? (If needed, explain on the reverse side) Yes <input checked="" type="radio"/> No | Community ID: PFO / forested wetland Transect ID: WET "H" Field Location: |
|---|--|

VEGETATION (USFWS Region No. 1)

| Dominant Plant Species(Latin/Common) | Stratum | Indicator | Plant Species(Latin/Common) | Stratum | Indicator |
|--|---------|-----------|---|---------|-----------|
| <i>Impatiens capensis</i> Touch-Me-Not, Spotted | Herb | FACW | <i>Ulmus rubra</i> Elm, Slippery | Tree | FAC |
| <i>Onoclea sensibilis</i> Fern, Sensitive | Herb | FACW | <i>Carpinus caroliniana</i> Hornbeam, American | Tree | FAC |
| <i>Equisetum sylvaticum</i> Horsetail, Woodland | Herb | FACW | <i>Fraxinus pennsylvanica</i> Ash, Green | Tree | FACW |
| <i>Cornus foemina</i> Dogwood, Stiff | Shrub | FAC | | | |
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|---|--|
| Percent of Dominant Species that are OBL, FACW or FAC: (excluding FAC-) 7/7 = 100.00% | FAC Neutral: 4/4 = 100.00% Numeric Index: 17/7 = 2.43 |
|---|--|

Remarks:

HYDROLOGY

| | |
|--|--|
| <u>NO</u> Recorded Data(Describe in Remarks): N/A Stream, Lake or Tide Gauge N/A Aerial Photographs N/A Other <u>YES</u> No Recorded Data Field Observations Depth of Surface Water: N/A (in.) Depth to Free Water in Pit: N/A (in.) Depth to Saturated Soil: = 0 (in.) | Wetland Hydrology Indicators Primary Indicators <u>NO</u> Inundated <u>YES</u> Saturated in Upper 12 Inches <u>NO</u> Water Marks <u>NO</u> Drift Lines <u>NO</u> Sediment Deposits <u>NO</u> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <u>YES</u> Oxidized Root Channels in Upper 12 Inches <u>NO</u> Water-Stained Leaves <u>NO</u> Local Soil Survey Data <u>YES</u> FAC-Neutral Test <u>NO</u> Other (Explain in Remarks) |
|--|--|

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|--|--------------------|---|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & JHunter | Project No: | Date: 21-Jul-2005 County: Rensselaer State: New York Plot ID: 28 |
|--|--------------------|---|

SOILS

Map Unit Name (Series and Phase): Bernardston gravelly silt loam 15-25% slopes
Map Symbol: BeD **Drainage Class:** Well Drained **Mapped Hydric Inclusion?**
Taxonomy (Subgroup): Oxyaquic Dystrudept **Field Observations Confirm Mapped Type?** Yes No

Profile Description

| Depth (inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Color (Munsell Moist) | Mottle Abundance/Contrast | | Texture, Concretions, Structure, etc |
|----------------|---------|------------------------------|------------------------------|---------------------------|------------------------|--------------------------------------|
| 2-0 | O | N/A | N/A | N/A | N/A | Silty clay |
| 0-8 | A | 10YR3/3 | 10YR6/8 10YR4/1 | Many Many | Prominent Prominent | Silty clay |
| 8+ | B | 10YR2/1 | 10YR5/6 10YR4/1 | Many Many | Distinct Distinct | Silty clay, Trace gravel |

Hydric Soil Indicators:

| | |
|--|--|
| <u>NO</u> Histosol <u>NO</u> Histic Epipedon <u>NO</u> Sulfidic Odor <u>NO</u> Aquic Moisture Regime <u>NO</u> Reducing Conditions <u>YES</u> Gleyed or Low Chroma Colors | <u>NO</u> Concretions <u>NO</u> High Organic Content in Surface Layer in Sandy Soils <u>NO</u> Organic Streaking in Sandy Soils <u>NO</u> Listed on Local Hydric Soils List <u>NO</u> Listed on National Hydric Soils List <u>NO</u> Other (Explain in Remarks) |
|--|--|

Remarks:
 Depth pit 16"

WETLAND DETERMINATION

| | |
|--|---|
| Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes <input type="radio"/> No Wetland Hydrology Present? <input checked="" type="radio"/> Yes <input type="radio"/> No Hydric Soils Present? <input checked="" type="radio"/> Yes <input type="radio"/> No | Is the Sampling Point within the Wetland? <input checked="" type="radio"/> Yes <input type="radio"/> No |
|--|---|

Remarks:

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|--|--------------------|---|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & JHunter | Project No: | Date: 21-Jul-2005 County: Rensselaer State: New York Plot ID: 29 |
|--|--------------------|---|

| | |
|--|--|
| Do Normal Circumstances exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation:)? <input type="radio"/> Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? <input type="radio"/> Yes <input checked="" type="radio"/> No (If needed, explain on the reverse side) | Community ID: PFO / forested wetland Transect ID: WET "I" Field Location: |
|--|--|

VEGETATION (USFWS Region No. 1)

| Dominant Plant Species(Latin/Common) | Stratum | Indicator | Plant Species(Latin/Common) | Stratum | Indicato |
|--------------------------------------|---------|-----------|-----------------------------|---------|----------|
| <i>Glyceria striata</i> | Herb | OBL | <i>Acer rubrum</i> | Tree | FAC |
| Grass, Fowl Manna | | | Maple, Red | | |
| <i>Impatiens capensis</i> | Herb | FACW | <i>Ulmus rubra</i> | Tree | FAC |
| Touch-Me-Not, Spotted | | | Elm, Slippery | | |
| <i>Juncus effusus</i> | Herb | FACW+ | <i>Rhamnus cathartica</i> | Tree | UPL |
| Rush, Soft | | | Buckthorn, Common | | |
| <i>Onoclea sensibilis</i> | Herb | FACW | | | |
| Fern, Sensitive | | | | | |
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|--|---|
| Percent of Dominant Species that are OBL, FACW or FAC: (excluding FAC-) 6/7 = 85.71% | FAC Neutral: 4/5 = 80.00% Numeric Index: 18/7 = 2.57 |
|--|---|

Remarks:

HYDROLOGY

| | |
|---|--|
| <u>NO</u> Recorded Data(Describe in Remarks): <u>N/A</u> Stream, Lake or Tide Gauge <u>N/A</u> Aerial Photographs <u>N/A</u> Other <u>YES</u> No Recorded Data Field Observations Depth of Surface Water: N/A (in.) Depth to Free Water in Pit: N/A (in.) Depth to Saturated Soil: +/- 2 (in.) | Wetland Hydrology Indicators Primary Indicators <u>NO</u> Inundated <u>YES</u> Saturated in Upper 12 Inches <u>NO</u> Water Marks <u>NO</u> Drift Lines <u>NO</u> Sediment Deposits <u>YES</u> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <u>NO</u> Oxidized Root Channels in Upper 12 Inches <u>NO</u> Water-Stained Leaves <u>NO</u> Local Soil Survey Data <u>YES</u> FAC-Neutral Test <u>NO</u> Other (Explain in Remarks) |
|---|--|

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|--|--------------------|---|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & JHunter | Project No: | Date: 21-Jul-2005 County: Rensselaer State: New York Plot ID: 29 |
|--|--------------------|---|

SOILS

Map Unit Name (Series and Phase): Pittstown gravelly silt loam 8-15% slopes
Map Symbol: P1C **Drainage Class:** Moderately well drained **Mapped Hydric Inclusion?**
Taxonomy (Subgroup): Aquic Dystrudepts **Field Observations Confirm Mapped Type?** Yes No

Profile Description

| Depth (inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Color (Munsell Moist) | Mottle Abundance/Contrast | | Texture, Concretions, Structure, etc |
|----------------|---------|------------------------------|------------------------------|---------------------------|-----------------------|--------------------------------------|
| 2-0 | 0 | N/A | N/A | N/A | N/A | Silty clay |
| 0-7 | A | 10YR3/1 | 10YR4/1 10YR6/8 | Many Many | Distinct Prominent | Silty clay |
| 7+ | B | 10YR2/1 | 10YR4/1 10YR5/6 | Many Many | Distinct Distinct | Silty clay, Trace gravel |

Hydric Soil Indicators:

| | |
|--|--|
| <u>NO</u> Histosol <u>NO</u> Histic Epipedon <u>NO</u> Sulfidic Odor <u>NO</u> Aquic Moisture Regime <u>NO</u> Reducing Conditions <u>YES</u> Gleyed or Low Chroma Colors | <u>NO</u> Concretions <u>NO</u> High Organic Content in Surface Layer in Sandy Soils <u>NO</u> Organic Streaking in Sandy Soils <u>NO</u> Listed on Local Hydric Soils List <u>NO</u> Listed on National Hydric Soils List <u>NO</u> Other (Explain in Remarks) |
|--|--|

Remarks:
 Depth pit 16"

WETLAND DETERMINATION

| | |
|---|--|
| Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes No Wetland Hydrology Present? <input checked="" type="radio"/> Yes No Hydric Soils Present? <input checked="" type="radio"/> Yes No | Is the Sampling Point within the Wetland? <input checked="" type="radio"/> Yes No |
|---|--|

Remarks:

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|--|--------------------|---|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & JHunter | Project No: | Date: 21-Jul-2005 County: Rensselaer State: New York Plot ID: 30 |
|--|--------------------|---|

| | |
|--|--|
| Do Normal Circumstances exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation:)? Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? (If needed, explain on the reverse side) Yes <input checked="" type="radio"/> No | Community ID: Upland Forest Transect ID: UP "H/I" Field Location: |
|--|--|

VEGETATION (USFWS Region No. 1)

| Dominant Plant Species(Latin/Common) | Stratum | Indicator | Plant Species(Latin/Common) | Stratum | Indicator |
|---|---------|-----------|---|---------|-----------|
| <i>Parthenocissus quinquefolia</i> Creeper, Virginia | Herb | FACU | <i>Acer saccharum</i> Maple, Sugar | Shrub | FACU- |
| <i>Rhamnus cathartica</i> Buckthorn, Common | Herb | UPL | <i>Ostrya virginiana</i> Hop-Hornbeam, Eastern | Shrub | FACU- |
| <i>Alliaria petiolata</i> Mustard, Garlic | Herb | FACU- | <i>Acer saccharum</i> Maple, Sugar | Tree | FACU- |
| <i>Carex pensylvanica</i> Pennsylvania Sedge | Herb | NI | <i>Fraxinus americana</i> Ash, White | Tree | FACU |
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|---|--|
| Percent of Dominant Species that are OBL, FACW or FAC: (excluding FAC-) 0/7 = 0.00% | FAC Neutral: 0/7 = 0.00% Numeric Index: 29/7 = 4.14 |
|---|--|

Remarks:

HYDROLOGY

| | |
|---|---|
| NO Recorded Data(Describe in Remarks): <u>N/A</u> Stream, Lake or Tide Gauge <u>N/A</u> Aerial Photographs <u>N/A</u> Other YES No Recorded Data Field Observations Depth of Surface Water: N/A (in.) Depth to Free Water in Pit: N/A (in.) Depth to Saturated Soil: N/A (in.) | Wetland Hydrology Indicators Primary Indicators <u>NO</u> Inundated <u>NO</u> Saturated in Upper 12 Inches <u>NO</u> Water Marks <u>NO</u> Drift Lines <u>NO</u> Sediment Deposits <u>NO</u> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <u>NO</u> Oxidized Root Channels in Upper 12 Inches <u>NO</u> Water-Stained Leaves <u>NO</u> Local Soil Survey Data <u>NO</u> FAC-Neutral Test <u>NO</u> Other (Explain in Remarks) |
|---|---|

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|--|--------------------|---|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & JHunter | Project No: | Date: 21-Jul-2005 County: Rensselaer State: New York Plot ID: 30 |
|--|--------------------|---|

SOILS

Map Unit Name (Series and Phase): Pittstown gravelly silt loam 8-15% slopes
Map Symbol: PtC **Drainage Class:** Moderately well drained **Mapped Hydric Inclusion?**
Taxonomy (Subgroup): Aquic Dystrudepts **Field Observations Confirm Mapped Type? Yes** **No**

Profile Description

| Depth (inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Color (Munsell Moist) | Mottle Abundance/Contrast | | Texture, Concretions, Structure, etc |
|----------------|---------|------------------------------|------------------------------|---------------------------|-----|--------------------------------------|
| 3-0 | 0 | N/A | N/A | N/A | N/A | Silt loam |
| 0-6 | A | 10YR4/3 | N/A | N/A | N/A | Silt loam, Trace gravel |
| 6+ | B | 10YR5/3 | N/A | N/A | N/A | Silt loam, Gravelly |

Hydric Soil Indicators:

| | |
|---|--|
| <u>NO</u> Histosol <u>NO</u> Histic Epipedon <u>NO</u> Sulfidic Odor <u>NO</u> Aquic Moisture Regime <u>NO</u> Reducing Conditions <u>NO</u> Gleyed or Low Chroma Colors | <u>NO</u> Concretions <u>NO</u> High Organic Content in Surface Layer in Sandy Soils <u>NO</u> Organic Streaking in Sandy Soils <u>NO</u> Listed on Local Hydric Soils List <u>NO</u> Listed on National Hydric Soils List <u>NO</u> Other (Explain in Remarks) |
|---|--|

Remarks:

WETLAND DETERMINATION

| | |
|---|--|
| Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Hydric Soils Present? Yes <input type="radio"/> No <input checked="" type="radio"/> | Is the Sampling Point within the Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/> |
|---|--|

Remarks:

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|--|--------------------|---|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & JHunter | Project No: | Date: 21-Jul-2005 County: Rensselaer State: New York Plot ID: 22 |
|--|--------------------|---|

| | |
|---|--|
| Do Normal Circumstances exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? <input type="radio"/> Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? <input type="radio"/> Yes <input checked="" type="radio"/> No (If needed, explain on the reverse side) | Community ID: PFO / forested wetland Transect ID: WET "L" Field Location: |
|---|--|

VEGETATION (USFWS Region No. 1)

| Dominant Plant Species(Latin/Common) | Stratum | Indicator | Plant Species(Latin/Common) | Stratum | Indicator |
|---|---------|-----------|---|---------|-----------|
| <i>Carex stricta</i> Sedge,Uptight | Herb | OBL | <i>Thelypteris thelypteroides</i> Fern,Marsh | Herb | FACW+ |
| <i>Dulichium arundinaceum</i> Sedge,Three-Way | Herb | OBL | <i>Ilex verticillata</i> Winterberry,Common | Shrub | FACW+ |
| <i>Onoclea sensibilis</i> Fern,Sensitive | Herb | FACW | <i>Tilia americana</i> Basswood,American | Tree | FACU |
| <i>Agrostis alba</i> Redtop | Herb | FACW | <i>Fraxinus pennsylvanica</i> Ash,Green | Tree | FACW |
| <i>Eupatoriadelphus maculatus</i> Joe-Pye-Weed,Spotted | Herb | FACW | <i>Acer rubrum</i> Maple,Red | Tree | FAC |
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| | |
|---|--|
| Percent of Dominant Species that are OBL, FACW or FAC: (excluding FAC-) 9/10 = 90.00% | FAC Neutral: 8/9 = 88.89% Numeric Index: 21/10 = 2.10 |
|---|--|

Remarks:

HYDROLOGY

| | |
|---|--|
| NO Recorded Data(Describe in Remarks): <u>N/A</u> Stream, Lake or Tide Gauge <u>N/A</u> Aerial Photographs <u>N/A</u> Other YES No Recorded Data Field Observations Depth of Surface Water: +/- 2 (in.) Depth to Free Water in Pit: N/A (in.) Depth to Saturated Soil: N/A (in.) | Wetland Hydrology Indicators Primary Indicators <u>YES</u> Inundated <u>YES</u> Saturated in Upper 12 Inches <u>NO</u> Water Marks <u>NO</u> Drift Lines <u>NO</u> Sediment Deposits <u>NO</u> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <u>NO</u> Oxidized Root Channels in Upper 12 Inches <u>NO</u> Water-Stained Leaves <u>NO</u> Local Soil Survey Data <u>YES</u> FAC-Neutral Test <u>NO</u> Other (Explain in Remarks) |
|---|--|

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|--|--------------------|---|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & JLDHunter | Project No: | Date: 21-Jul-2005 County: Rensselaer State: New York Plot ID: 22 |
|--|--------------------|---|

SOILS

| | |
|---|---|
| Map Unit Name (Series and Phase): Pittstown gravelly silt loam 8-15% slopes Map Symbol: PtC Drainage Class: Moderatly well drained Taxonomy (Subgroup): Aquic Dystrudepts Profile Description | Mapped Hydric Inclusion? Field Observations Confirm Mapped Type? Yes <input type="radio"/> No <input checked="" type="radio"/> |
|---|---|

| Depth (inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Color (Munsell Moist) | Mottle Abundance/Contrast | Mottle | Texture, Concretions, Structure, etc |
|----------------|---------|------------------------------|------------------------------|---------------------------|--------|--------------------------------------|
| 0+ | 0 | N/A | N/A | N/A | N/A | Silt loam |

Hydric Soil Indicators:

| | |
|--|--|
| <u>NO</u> Histosol <u>YES</u> Histic Epipedon <u>NO</u> Sulfidic Odor <u>NO</u> Aquic Moisture Regime <u>NO</u> Reducing Conditions <u>NO</u> Gleyed or Low Chroma Colors | <u>NO</u> Concretions <u>NO</u> High Organic Content in Surface Layer in Sandy Soils <u>NO</u> Organic Streaking in Sandy Soils <u>NO</u> Listed on Local Hydric Soils List <u>NO</u> Listed on National Hydric Soils List <u>NO</u> Other (Explain in Remarks) |
|--|--|

Remarks:

WETLAND DETERMINATION

| | |
|--|---|
| Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes <input type="radio"/> No Wetland Hydrology Present? <input checked="" type="radio"/> Yes <input type="radio"/> No Hydric Soils Present? <input checked="" type="radio"/> Yes <input type="radio"/> No | Is the Sampling Point within the Wetland? <input checked="" type="radio"/> Yes <input type="radio"/> No |
|--|---|

Remarks:

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|--|--------------------|---|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & J.LHunter | Project No: | Date: 21-Jul-2005 County: Rensselaer State: New York Plot ID: 23 |
|--|--------------------|---|

| | |
|--|--|
| Do Normal Circumstances exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation:)? Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? (If needed, explain on the reverse side) Yes <input checked="" type="radio"/> No | Community ID: Upland Forest Transect ID: UP "L" Field Location: |
|--|--|

VEGETATION (USFWS Region No. 1)

| Dominant Plant Species(Latin/Common) | Stratum | Indicator | Plant Species(Latin/Common) | Stratum | Indicator |
|--|---------|-----------|--|---------|-----------|
| <i>Carex pensylvanica</i> Pennsylvania Sedge | Herb | NI | <i>Rhamnus cathartica</i> Buckthorn, Common | Shrub | UPL |
| <i>Parthenocissus quinquefolia</i> Creeperv, Virginia | Herb | FACU | <i>Carya ovata</i> Hickory, Shag-Bark | Shrub | FACU- |
| <i>Alliaria petiolata</i> Mustard, Garlic | Herb | FACU- | <i>Carya ovata</i> Hickory, Shag-Bark | Tree | FACU- |
| <i>Rhamnus cathartica</i> Buckthorn, Common | Herb | UPL | <i>Tilia americana</i> Basswood, American | Tree | FACU |
| <i>Celastrus scandens</i> Bitter-Sweet, American | Herb | FACU- | <i>Quercus alba</i> Oak, White | Tree | FACU- |
| | | | | | |
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| | |
|---|--|
| Percent of Dominant Species that are OBL, FACW or FAC: (excluding FAC-) 0/9 = 0.00% | FAC Neutral: 0/9 = 0.00% Numeric Index: 38/9 = 4.22 |
|---|--|

Remarks:

HYDROLOGY

| | |
|---|---|
| <u>NO</u> Recorded Data(Describe in Remarks): <u>N/A</u> Stream, Lake or Tide Gauge <u>N/A</u> Aerial Photographs <u>N/A</u> Other <u>YES</u> No Recorded Data Field Observations Depth of Surface Water: N/A (in.) Depth to Free Water in Pit: N/A (in.) Depth to Saturated Soil: N/A (in.) | Wetland Hydrology Indicators Primary Indicators <u>NO</u> Inundated <u>NO</u> Saturated in Upper 12 Inches <u>NO</u> Water Marks <u>NO</u> Drift Lines <u>NO</u> Sediment Deposits <u>NO</u> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <u>NO</u> Oxidized Root Channels in Upper 12 Inches <u>NO</u> Water-Stained Leaves <u>NO</u> Local Soil Survey Data <u>NO</u> FAC-Neutral Test <u>NO</u> Other (Explain in Remarks) |
|---|---|

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|--|--------------------|---|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & JHunter | Project No: | Date: 21-Jul-2005 County: Rensselaer State: New York Plot ID: 23 |
|--|--------------------|---|

SOILS

| | |
|---|---|
| Map Unit Name (Series and Phase): Pittstown gravelly silt loam 8-15% slopes Map Symbol: PtC Drainage Class: Moderatly well drained Taxonomy (Subgroup): Aquic Dystrudepts Profile Description | Mapped Hydric Inclusion? Field Observations Confirm Mapped Type? Yes <input type="radio"/> No <input checked="" type="radio"/> |
|---|---|

| Depth (inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Color (Munsell Moist) | Mottle Abundance/Contrast | Texture, Concretions, Structure, etc |
|----------------|---------|------------------------------|------------------------------|---------------------------|--------------------------------------|
| 4-0 | 0 | N/A | N/A | N/A N/A | Loam |
| 0-9 | A | 10YR4/3 | N/A | N/A N/A | Silt loam |
| 9+ | B | 10YR5/8 | N/A | N/A N/A | Silty clay, Trace gravel |

| | |
|---|--|
| Hydric Soil Indicators: <u>NO</u> Histosol <u>NO</u> Histic Epipedon <u>NO</u> Sulfidic Odor <u>NO</u> Aquic Moisture Regime <u>NO</u> Reducing Conditions <u>NO</u> Gleyed or Low Chroma Colors | <u>NO</u> Concretions <u>NO</u> High Organic Content in Surface Layer in Sandy Soils <u>NO</u> Organic Streaking in Sandy Soils <u>NO</u> Listed on Local Hydric Soils List <u>NO</u> Listed on National Hydric Soils List <u>NO</u> Other (Explain in Remarks) |
|---|--|

Remarks:
 Depth pit 16"

WETLAND DETERMINATION

| | |
|---|--|
| Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Hydric Soils Present? Yes <input type="radio"/> No <input checked="" type="radio"/> | Is the Sampling Point within the Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/> |
|---|--|

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|--|--------------------|---|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & JHunter | Project No: | Date: 21-Jul-2005 County: Rensselaer State: New York Plot ID: 19 |
|--|--------------------|---|

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|--|--|--|--|--|
| Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation:)? Is the area a potential Problem Area? (If needed, explain on the reverse side) | <input checked="" type="radio"/> Yes <input type="radio"/> No | <input type="radio"/> Yes <input checked="" type="radio"/> No | <input type="radio"/> Yes <input checked="" type="radio"/> No | Community ID: PFO / forested wetland Transect ID: Wet "J" Field Location: |
|--|--|--|--|--|

VEGETATION (USFWS Region No. 1)

| Dominant Plant Species(Latin/Common) | Stratum | Indicator | Plant Species(Latin/Common) | Stratum | Indicator |
|--------------------------------------|---------|-----------|------------------------------|---------|-----------|
| <i>Onoclea sensibilis</i> | Herb | FACW | <i>Athyrium filix-femina</i> | Herb | FAC |
| Fern,Sensitive | | | Fern,Subarctic Lady | | |
| <i>Symplocarpus foetidus</i> | Herb | OBL | <i>Berberis thunbergii</i> | Shrub | FACU |
| Skunk-Cabbage | | | Barberry,Japanese | | |
| <i>Impatiens capensis</i> | Herb | FACW | <i>Acer rubrum</i> | Tree | FAC |
| Touch-Me-Not,Spotted | | | Maple,Red | | |
| <i>Toxicodendron radicans</i> | Herb | FAC | <i>Acer saccharum</i> | Tree | FACU- |
| Ivy,Poison | | | Maple,Sugar | | |
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|--|---|
| Percent of Dominant Species that are OBL, FACW or FAC: (excluding FAC-) 6/8 = 75.00% | FAC Neutral: 3/5 = 60.00% Numeric Index: 22/8 = 2.75 |
|--|---|

Remarks:

HYDROLOGY

| | |
|---|---|
| <u>NO</u> Recorded Data(Describe in Remarks): <u>N/A</u> Stream, Lake or Tide Gauge <u>N/A</u> Aerial Photographs <u>N/A</u> Other <u>YES</u> No Recorded Data Field Observations Depth of Surface Water: N/A (in.) Depth to Free Water in Pit: N/A (in.) Depth to Saturated Soil: = 0 (in.) | Wetland Hydrology Indicators Primary Indicators <u>NO</u> Inundated <u>YES</u> Saturated in Upper 12 Inches <u>NO</u> Water Marks <u>NO</u> Drift Lines <u>NO</u> Sediment Deposits <u>YES</u> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <u>NO</u> Oxidized Root Channels in Upper 12 Inches <u>YES</u> Water-Stained Leaves <u>NO</u> Local Soil Survey Data <u>YES</u> FAC-Neutral Test <u>NO</u> Other (Explain in Remarks) |
|---|---|

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|--|--------------------|---|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & JH Hunter | Project No: | Date: 21-Jul-2005 County: Rensselaer State: New York Plot ID: 19 |
|--|--------------------|---|

SOILS

Map Unit Name (Series and Phase): Pittstown gravelly silt loam 8-15% slopes
Map Symbol: PtC **Drainage Class:** Moderately well drained **Mapped Hydric Inclusion?**
Taxonomy (Subgroup): Aquic Dystrudepts **Field Observations Confirm Mapped Type?** Yes No

Profile Description

| Depth (inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Color (Munsell Moist) | Mottle Abundance/Contrast | | Texture, Concretions, Structure, etc |
|----------------|---------|------------------------------|------------------------------|---------------------------|----------|--------------------------------------|
| 3-0 | 0 | N/A | N/A | N/A | N/A | Silt loam |
| 0-5 | A | 10YR3/1 | N/A | N/A | N/A | Silty clay |
| 5+ | B | 10YR3/2 | 10YR6/8 | Common | Distinct | Silty clay |

Hydric Soil Indicators:

| | |
|---|---|
| <u>NO Histosol</u> <u>NO Histic Epipedon</u> <u>NO Sulfidic Odor</u> <u>NO Aquic Moisture Regime</u> <u>NO Reducing Conditions</u> <u>NO Gleyed or Low Chroma Colors</u> | YES Concretions <u>NO High Organic Content in Surface Layer in Sandy Soils</u> <u>NO Organic Streaking in Sandy Soils</u> <u>NO Listed on Local Hydric Soils List</u> <u>NO Listed on National Hydric Soils List</u> <u>NO Other (Explain in Remarks)</u> |
|---|---|

Remarks:
 Depth of pit 17"

WETLAND DETERMINATION

| | |
|--|--|
| Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes No | Is the Sampling Point within the Wetland? <input checked="" type="radio"/> Yes No |
| Wetland Hydrology Present? <input checked="" type="radio"/> Yes No | |
| Hydric Soils Present? <input checked="" type="radio"/> Yes No | |

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
 (1987 COE Wetlands Delineation Manual)

| | | |
|--|--------------------|---|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & JHunter | Project No: | Date: 21-Jul-2005 County: Rensselaer State: New York Plot ID: 20 |
|--|--------------------|---|

| | | | | |
|---|--|--|--|--|
| Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? (If needed, explain on the reverse side) | <input checked="" type="radio"/> Yes <input type="radio"/> No | <input type="radio"/> Yes <input checked="" type="radio"/> No | <input type="radio"/> Yes <input checked="" type="radio"/> No | Community ID: Upland Forest Transect ID: Up "J/M" Field Location: |
|---|--|--|--|--|

VEGETATION (USFWS Region No. 1)

| Dominant Plant Species(Latin/Common) | Stratum | Indicator | Plant Species(Latin/Common) | Stratum | Indicator |
|--------------------------------------|---------|-----------|-----------------------------|---------|-----------|
| <i>Alliaria petiolata</i> | Herb | FACU- | <i>Berberis thunbergii</i> | Shrub | FACU |
| Mustard, Garlic | | | Barberry, Japanese | | |
| <i>Rubus idaeus</i> | Herb | FAC- | <i>Prunus serotina</i> | Tree | FACU |
| Raspberry, Common Red | | | Cherry, Black | | |
| <i>Parthenocissus quinquefolia</i> | Herb | FACU | <i>Quercus alba</i> | Tree | FACU- |
| Creeper, Virginia | | | Oak, White | | |
| <i>Prunus serotina</i> | Shrub | FACU | <i>Acer rubrum</i> | Tree | FAC |
| Cherry, Black | | | Maple, Red | | |
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| | |
|--|--|
| Percent of Dominant Species that are OBL, FACW or FAC: (excluding FAC-) 1/8 = 12.50% | FAC Neutral: 0/6 = 0.00% Numeric Index: 30/8 = 3.75 |
|--|--|

Remarks:

HYDROLOGY

| | |
|---|---|
| <u>NO</u> Recorded Data(Describe in Remarks): <u>N/A</u> Stream, Lake or Tide Gauge <u>N/A</u> Aerial Photographs <u>N/A</u> Other <u>YES</u> No Recorded Data Field Observations Depth of Surface Water: N/A (in.) Depth to Free Water in Pit: N/A (in.) Depth to Saturated Soil: N/A (in.) | Wetland Hydrology Indicators Primary Indicators <u>NO</u> Inundated <u>NO</u> Saturated in Upper 12 Inches <u>NO</u> Water Marks <u>NO</u> Drift Lines <u>NO</u> Sediment Deposits <u>NO</u> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <u>NO</u> Oxidized Root Channels in Upper 12 Inches <u>NO</u> Water-Stained Leaves <u>NO</u> Local Soil Survey Data <u>NO</u> FAC-Neutral Test <u>NO</u> Other (Explain in Remarks) |
|---|---|

Remarks:

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|--|--------------------|---|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & JHunter | Project No: | Date: 21-Jul-2005 County: Rensselaer State: New York Plot ID: 20 |
|--|--------------------|---|

SOILS

| | |
|--|---|
| Map Unit Name (Series and Phase): Bernardston gravelly silt loam 15-25% slopes Map Symbol: BeD Drainage Class: Well Drained Taxonomy (Subgroup): Oxyaquic Dystrudept Profile Description | Mapped Hydric Inclusion? Field Observations Confirm Mapped Type? <input checked="" type="radio"/> Yes <input type="radio"/> No |
|--|---|

| Depth (inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Color (Munsell Moist) | Mottle Abundance/Contrast | | Texture, Concretions, Structure, etc |
|----------------|---------|------------------------------|------------------------------|---------------------------|-----|--------------------------------------|
| 2-0 | 0 | N/A | N/A | N/A | N/A | Silt loam |
| 0-12 | A | 10YR3/3 | N/A | N/A | N/A | Silty clay loam |
| 12+ | B | 10YR4/6 | N/A | N/A | N/A | Silt loam, Trace gravel |

| | |
|---|--|
| Hydric Soil Indicators: <u>NO</u> Histosol <u>NO</u> Histic Epipedon <u>NO</u> Sulfidic Odor <u>NO</u> Aquic Moisture Regime <u>NO</u> Reducing Conditions <u>NO</u> Gleyed or Low Chroma Colors | <u>NO</u> Concretions <u>NO</u> High Organic Content in Surface Layer in Sandy Soils <u>NO</u> Organic Streaking in Sandy Soils <u>NO</u> Listed on Local Hydric Soils List <u>NO</u> Listed on National Hydric Soils List <u>NO</u> Other (Explain in Remarks) |
|---|--|

Remarks:

WETLAND DETERMINATION

| | |
|---|--|
| Hydrophytic Vegetation Present? Yes <input type="radio"/> <input checked="" type="radio"/> No Wetland Hydrology Present? Yes <input type="radio"/> <input checked="" type="radio"/> No Hydric Soils Present? Yes <input type="radio"/> <input checked="" type="radio"/> No | Is the Sampling Point within the Wetland? Yes <input type="radio"/> <input checked="" type="radio"/> No |
|---|--|

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|--|--------------------|---|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & JH Hunter | Project No: | Date: 21-Jul-2005 County: Rensselaer State: New York Plot ID: 21 |
|--|--------------------|---|

| | |
|--|--|
| Do Normal Circumstances exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation:)? <input type="radio"/> Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? <input type="radio"/> Yes <input checked="" type="radio"/> No (If needed, explain on the reverse side) | Community ID: PFO / forested wetland Transect ID: WET "M" Field Location: |
|--|--|

VEGETATION (USFWS Region No. 1)

| Dominant Plant Species(Latin/Common) | Stratum | Indicator | Plant Species(Latin/Common) | Stratum | Indicator |
|--|---------|-----------|--|---------|-----------|
| <i>Impatiens capensis</i> Touch-Me-Not, Spotted | Herb | FACW | <i>Carpinus caroliniana</i> Hombear, American | Shrub | FAC |
| <i>Glyceria striata</i> Grass, Fowl Manna | Herb | OBL | <i>Carpinus caroliniana</i> Hombear, American | Tree | FAC |
| <i>Thelypteris noveboracensis</i> Fern, New York | Herb | FAC | <i>Acer rubrum</i> Maple, Red | Tree | FAC |
| <i>Athyrium filix-femina</i> Fern, Subarctic Lady | Herb | FAC | <i>Fraxinus pennsylvanica</i> Ash, Green | Tree | FACW |
| <i>Viburnum trilobum</i> Cranberrybush, American | Herb | FACW | | | |
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| | |
|---|--|
| Percent of Dominant Species that are OBL, FACW or FAC: (excluding FAC-) 9/9 = 100.00% | FAC Neutral: 4/4 = 100.00% Numeric Index: 22/9 = 2.44 |
|---|--|

Remarks:

HYDROLOGY

| | |
|---|--|
| NO Recorded Data(Describe in Remarks): <u>N/A</u> Stream, Lake or Tide Gauge <u>N/A</u> Aerial Photographs <u>N/A</u> Other <u>YES</u> No Recorded Data Field Observations Depth of Surface Water: N/A (in.) Depth to Free Water in Pit: N/A (in.) Depth to Saturated Soil: = 0 (in.) | Wetland Hydrology Indicators Primary Indicators <u>NO</u> Inundated <u>YES</u> Saturated in Upper 12 Inches <u>NO</u> Water Marks <u>NO</u> Drift Lines <u>NO</u> Sediment Deposits <u>YES</u> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <u>YES</u> Oxidized Root Channels in Upper 12 Inches <u>YES</u> Water-Stained Leaves <u>NO</u> Local Soil Survey Data <u>YES</u> FAC-Neutral Test <u>NO</u> Other (Explain in Remarks) |
|---|--|

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|--|--------------------|---|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & JHunter | Project No: | Date: 21-Jul-2005 County: Rensselaer State: New York Plot ID: 21 |
|--|--------------------|---|

SOILS

Map Unit Name (Series and Phase): Bernardston gravelly silt loam 15-25% slopes
Map Symbol: BeD **Drainage Class:** Well Drained **Mapped Hydric Inclusion?**
Taxonomy (Subgroup): Oxyaquic Dystrudept **Field Observations Confirm Mapped Type?** Yes No

Profile Description

| Depth (inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Color (Munsell Moist) | Mottle | | Texture, Concretions, Structure, etc |
|----------------|---------|------------------------------|------------------------------|--------------------|-----------------------|--------------------------------------|
| | | | | Abundance/Contrast | | |
| 1-0 | 0 | N/A | N/A | N/A | N/A | Clay loam, Trace gravel |
| 0-6 | A | 10YR3/3 | 10YR6/8 10YR5/1 | Common Many | Prominent Distinct | Silty clay, Trace gravel |
| 6+ | B | 10YR3/1 | 10YR5/6 10YR6/8 | Common Few | Distinct Prominent | Silt, Gravelly |

Hydric Soil Indicators:

| | |
|---|---|
| <u>NO Histosol</u> <u>NO Histic Epipedon</u> <u>NO Sulfidic Odor</u> <u>NO Aquic Moisture Regime</u> <u>NO Reducing Conditions</u> <u>NO Gleyed or Low Chroma Colors</u> | YES Concretions <u>NO High Organic Content in Surface Layer in Sandy Soils</u> <u>NO Organic Streaking in Sandy Soils</u> <u>NO Listed on Local Hydric Soils List</u> <u>NO Listed on National Hydric Soils List</u> <u>NO Other (Explain in Remarks)</u> |
|---|---|

Remarks:
 Depth of pit 14"

WETLAND DETERMINATION

| | |
|---|--|
| Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes No Wetland Hydrology Present? <input checked="" type="radio"/> Yes No Hydric Soils Present? <input checked="" type="radio"/> Yes No | Is the Sampling Point within the Wetland? <input checked="" type="radio"/> Yes No |
|---|--|

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|--|--------------------|---|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & JH Hunter | Project No: | Date: 21-Jul-2005 County: Rensselaer State: New York Plot ID: 24 |
|--|--------------------|---|

| | |
|---|--|
| Do Normal Circumstances exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? <input type="radio"/> Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? <input type="radio"/> Yes <input checked="" type="radio"/> No (If needed, explain on the reverse side) | Community ID: PFO / forested wetland Transect ID: WET "N" Field Location: |
|---|--|

VEGETATION (USFWS Region No. 1)

| Dominant Plant Species(Latin/Common) | Stratum | Indicator | Plant Species(Latin/Common) | Stratum | Indicator |
|--|---------|-----------|--|---------|-----------|
| <i>Rhynchospora microcephala</i> Beakrush, Capitata | Herb | FACW+ | <i>Solidago rugosa</i> Golden-Rod, Wrinkled | Herb | FAC |
| <i>Thelypteris noveboracensis</i> Fern, New York | Herb | FAC | <i>Lonicera tatarica</i> Honeysuckle, Tartarian | Shrub | FACU* |
| <i>Onoclea sensibilis</i> Fern, Sensitive | Herb | FACW | <i>Fraxinus pennsylvanica</i> Ash, Green | Tree | FACW |
| <i>Juncus effusus</i> Rush, Soft | Herb | FACW+ | <i>Acer rubrum</i> Maple, Red | Tree | FAC |
| <i>Thelypteris simulata</i> Fern, Massachusetts | Herb | FACW | | | |
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| | |
|--|---|
| Percent of Dominant Species that are OBL, FACW or FAC: (excluding FAC-) 8/9 = 88.89% | FAC Neutral: 5/6 = 83.33% Numeric Index: 23/9 = 2.56 |
|--|---|

Remarks:

HYDROLOGY

| | |
|---|--|
| <u>NO</u> Recorded Data(Describe in Remarks): <u>N/A</u> Stream, Lake or Tide Gauge <u>N/A</u> Aerial Photographs <u>N/A</u> Other <u>YES</u> No Recorded Data Field Observations Depth of Surface Water: N/A (in.) Depth to Free Water in Pit: N/A (in.) Depth to Saturated Soil: = 0 (in.) | Wetland Hydrology Indicators Primary Indicators <u>NO</u> Inundated <u>YES</u> Saturated in Upper 12 Inches <u>NO</u> Water Marks <u>NO</u> Drift Lines <u>NO</u> Sediment Deposits <u>YES</u> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <u>NO</u> Oxidized Root Channels in Upper 12 Inches <u>YES</u> Water-Stained Leaves <u>NO</u> Local Soil Survey Data <u>YES</u> FAC-Neutral Test <u>YES</u> Other (Explain in Remarks) |
|---|--|

Remarks:
 adventitious roots

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|--|--------------------|---|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & JH Hunter | Project No: | Date: 21-Jul-2005 County: Rensselaer State: New York Plot ID: 24 |
|--|--------------------|---|

SOILS

Map Unit Name (Series and Phase): Pittstown gravelly silt loam 8-15% slopes
Map Symbol: PtC **Drainage Class:** Moderately well drained **Mapped Hydric Inclusion?**
Taxonomy (Subgroup): Aquic Dystrudepts **Field Observations Confirm Mapped Type?** Yes No

Profile Description

| Depth (inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Color (Munsell Moist) | Mottle | | Texture, Concretions, Structure, etc |
|----------------|---------|------------------------------|------------------------------|--------------------|------------------------|--------------------------------------|
| | | | | Abundance/Contrast | | |
| 2-0 | 0 | N/A | N/A | N/A | N/A | Silty clay |
| 0-8 | A | 10YR3/2 | 10YR5/6 10YR6/8 | Few Many | Distinct Prominent | Silty clay |
| 8+ | B | 10YR3/1 | 10YR6/1 10YR6/8 | Few Many | Prominent Prominent | Silty clay, Trace gravel |

Hydric Soil Indicators:

| | |
|--|--|
| <u>NO</u> Histosol <u>NO</u> Histic Epipedon <u>NO</u> Sulfidic Odor <u>NO</u> Aquic Moisture Regime <u>NO</u> Reducing Conditions <u>YES</u> Gleyed or Low Chroma Colors | <u>NO</u> Concretions <u>NO</u> High Organic Content in Surface Layer in Sandy Soils <u>NO</u> Organic Streaking in Sandy Soils <u>NO</u> Listed on Local Hydric Soils List <u>NO</u> Listed on National Hydric Soils List <u>NO</u> Other (Explain in Remarks) |
|--|--|

Remarks:
 Depth pit 16"

WETLAND DETERMINATION

| | |
|---|--|
| Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes No Wetland Hydrology Present? <input checked="" type="radio"/> Yes No Hydric Soils Present? <input checked="" type="radio"/> Yes No | Is the Sampling Point within the Wetland? <input checked="" type="radio"/> Yes No |
|---|--|

Remarks:

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|--|--------------------|---|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & JH Hunter | Project No: | Date: 21-Jul-2005 County: Rensselaer State: New York Plot ID: 25 |
|--|--------------------|---|

| | |
|--|--|
| Do Normal Circumstances exist on the site? Yes <input type="radio"/> No <input type="radio"/> Is the site significantly disturbed (Atypical Situation)? Yes <input type="radio"/> No <input checked="" type="radio"/> Is the area a potential Problem Area? Yes <input type="radio"/> No <input checked="" type="radio"/> (If needed, explain on the reverse side) | Community ID: Upland Forest Transect ID: UP "N" Field Location: |
|--|--|

VEGETATION (USFWS Region No. 1)

| Dominant Plant Species(Latin/Common) | Stratum | Indicator | Plant Species(Latin/Common) | Stratum | Indicator |
|--------------------------------------|---------|-----------|-----------------------------|---------|-----------|
| <i>Lonicera tatarica</i> | Herb | FACU* | <i>Aster divaricatus</i> | Herb | NI |
| Honeysuckle, Tartarian | | | Aster, White Wood | | |
| <i>Alliaria petiolata</i> | Herb | FACU- | <i>Lonicera tatarica</i> | Shrub | FACU* |
| Mustard, Garlic | | | Honeysuckle, Tartarian | | |
| <i>Streptopus roseus</i> | Herb | FAC- | <i>Acer saccharum</i> | Tree | FACU- |
| Twisted-Stalk, Rosy | | | Maple, Sugar | | |
| <i>Rhamnus cathartica</i> | Herb | UPL | <i>Fraxinus americana</i> | Tree | FACU |
| Buckthorn, Common | | | Ash, White | | |
| <i>Parthenocissus quinquefolia</i> | Herb | FACU | <i>Prunus serotina</i> | Tree | FACU |
| Creepers, Virginia | | | Cherry, Black | | |
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| | |
|--|--|
| Percent of Dominant Species that are OBL, FACW or FAC: (excluding FAC-) 0/9 = 0.00% | FAC Neutral: 0/8 = 0.00% Numeric Index: 36/9 = 4.00 |
|--|--|

Remarks:

HYDROLOGY

| | |
|--|---|
| <u>NO</u> Recorded Data(Describe in Remarks): <u>N/A</u> Stream, Lake or Tide Gauge <u>N/A</u> Aerial Photographs <u>N/A</u> Other <u>YES</u> No Recorded Data Field Observations Depth of Surface Water: N/A (in.) Depth to Free Water in Pit: N/A (in.) Depth to Saturated Soil: N/A (in.) | Wetland Hydrology Indicators Primary Indicators <u>NO</u> Inundated <u>NO</u> Saturated in Upper 12 Inches <u>NO</u> Water Marks <u>NO</u> Drift Lines <u>NO</u> Sediment Deposits <u>NO</u> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <u>NO</u> Oxidized Root Channels in Upper 12 Inches <u>NO</u> Water-Stained Leaves <u>NO</u> Local Soil Survey Data <u>NO</u> FAC-Neutral Test <u>NO</u> Other (Explain in Remarks) |
|--|---|

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|--|--------------------|---|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & JH Hunter | Project No: | Date: 21-Jul-2005 County: Rensselaer State: New York Plot ID: 25 |
|--|--------------------|---|

SOILS

| | |
|--|--|
| Map Unit Name (Series and Phase): Pittstown gravelly silt loam 8-15% slopes | |
| Map Symbol: PtC | Drainage Class: Moderately well drained |
| Taxonomy (Subgroup): Aquic Dystrudepts | Mapped Hydric Inclusion? |
| Profile Description | Field Observations Confirm Mapped Type? Yes <input type="radio"/> No <input checked="" type="radio"/> |

| Depth (inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Color (Munsell Moist) | Mottle | | Texture, Concretions, Structure, etc |
|----------------|---------|------------------------------|------------------------------|--------------------|-----|--------------------------------------|
| | | | | Abundance/Contrast | | |
| 2-0 | 0 | N/A | N/A | N/A | N/A | Silt loam |
| 0-10 | A | 10YR4/3 | N/A | N/A | N/A | Silt loam |
| 10+ | B | 10YR5/3 | N/A | N/A | N/A | Silt loam |

Hydric Soil Indicators:

| | |
|---------------------------------------|--|
| <u>NO</u> Histosol | <u>NO</u> Concretions |
| <u>NO</u> Histic Epipedon | <u>NO</u> High Organic Content in Surface Layer in Sandy Soils |
| <u>NO</u> Sulfidic Odor | <u>NO</u> Organic Streaking in Sandy Soils |
| <u>NO</u> Aquic Moisture Regime | <u>NO</u> Listed on Local Hydric Soils List |
| <u>NO</u> Reducing Conditions | <u>NO</u> Listed on National Hydric Soils List |
| <u>NO</u> Gleyed or Low Chroma Colors | <u>NO</u> Other (Explain in Remarks) |

Remarks:

WETLAND DETERMINATION

| | |
|---|---|
| Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> | Is the Sampling Point within the Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/> |
| Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/> | |
| Hydric Soils Present? Yes <input type="radio"/> No <input checked="" type="radio"/> | |

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|--|--------------------|---|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & JH Hunter | Project No: | Date: 3-Jun-2005 County: Rensselaer State: New York Plot ID: 9 |
|--|--------------------|---|

| | | | |
|--|--|--|--|
| Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation:)? Is the area a potential Problem Area? (If needed, explain on the reverse side) | <input checked="" type="radio"/> Yes <input type="radio"/> Yes <input type="radio"/> Yes | <input type="radio"/> No <input checked="" type="radio"/> No <input checked="" type="radio"/> No | Community ID: PSSE / scrub shrub Transect ID: WET "O" Field Location: |
|--|--|--|--|

VEGETATION (USFWS Region No. 1)

| Dominant Plant Species(Latin/Common) | Stratum | Indicator | Plant Species(Latin/Common) | Stratum | Indicato |
|---|---------|-----------|--|---------|----------|
| <i>Onoclea sensibilis</i> Fern, Sensitive | Herb | FACW | <i>Toxicodendron radicans</i> Ivy, Poison | Herb | FAC |
| <i>Lythrum salicaria</i> Loosestrife, Purple | Herb | FACW+ | <i>Comus foemina</i> Dogwood, Stiff | Shrub | FAC |
| <i>Juncus effusus</i> Rush, Soft | Herb | FACW+ | <i>Betula populifolia</i> Birch, Gray | Tree | FAC |
| <i>Carex stricta</i> Sedge, Uptight | Herb | OBL | <i>Quercus rubra</i> Oak, Northern Red | Tree | FACU- |
| <i>Comus foemina</i> Dogwood, Stiff | Herb | FAC | | | |
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| | |
|--|---|
| Percent of Dominant Species that are OBL, FACW or FAC: (excluding FAC-) 8/9 = 88.89% | FAC Neutral: 4/5 = 80.00% Numeric Index: 23/9 = 2.56 |
|--|---|

Remarks:

HYDROLOGY

| | |
|--|--|
| <p><u>NO</u> Recorded Data(Describe in Remarks): <u>N/A</u> Stream, Lake or Tide Gauge <u>N/A</u> Aerial Photographs <u>N/A</u> Other</p> <p><u>YES</u> No Recorded Data</p> <p>Field Observations</p> <p>Depth of Surface Water: N/A (in.) Depth to Free Water in Pit: N/A (in.) Depth to Saturated Soil: N/A (in.)</p> | <p>Wetland Hydrology Indicators</p> <p>Primary Indicators</p> <p><u>NO</u> Inundated <u>NO</u> Saturated in Upper 12 Inches <u>NO</u> Water Marks <u>NO</u> Drift Lines <u>YES</u> Sediment Deposits <u>NO</u> Drainage Patterns in Wetlands</p> <p>Secondary Indicators (2 or more required):</p> <p><u>YES</u> Oxidized Root Channels in Upper 12 Inches <u>YES</u> Water-Stained Leaves <u>NO</u> Local Soil Survey Data <u>YES</u> FAC-Neutral Test <u>NO</u> Other (Explain in Remarks)</p> |
|--|--|

Remarks:
 low spot resulting from ATV traffic

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|--|--------------------|---|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & JLDHunter | Project No: | Date: 3-Jun-2005 County: Rensselaer State: New York Plot ID: 9 |
|--|--------------------|---|

SOILS

Map Unit Name (Series and Phase): Bernardston gravelly silt loam 15-25% slopes
Map Symbol: BeD **Drainage Class:** Well Drained **Mapped Hydric Inclusion?**
Taxonomy (Subgroup): Oxyaquic Dystrudept **Field Observations Confirm Mapped Type?** Yes No

Profile Description

| Depth (inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Color (Munsell Moist) | Mottle | | Texture, Concretions, Structure, etc |
|----------------|---------|------------------------------|------------------------------|--------------------|----------------------|--------------------------------------|
| | | | | Abundance/Contrast | | |
| 1-0 | 0 | N/A | N/A | N/A | N/A | Silt loam |
| 0-5 | A | 10YR4/3 | N/A | N/A | N/A | Silty clay loam |
| 5-14 | B | 10YR3/2 | 7.5YR4/6 | Many | Prominent | Silty clay, Trace gravel |
| 14+ | Bg | 2.5Y3/2 | 7.5YR3/4 7.5YR4/6 | Few Many | Distinct Distinct | Silty clay |

Hydric Soil Indicators:

| | |
|---|---|
| <u>NO</u> Histosol <u>NO</u> Histic Epipedon <u>NO</u> Sulfidic Odor <u>NO</u> Aquic Moisture Regime <u>NO</u> Reducing Conditions <u>NO</u> Gleyed or Low Chroma Colors | YES Concretions <u>NO</u> High Organic Content in Surface Layer in Sandy Soils <u>NO</u> Organic Streaking in Sandy Soils <u>NO</u> Listed on Local Hydric Soils List <u>NO</u> Listed on National Hydric Soils List <u>NO</u> Other (Explain in Remarks) |
|---|---|

Remarks:
 Depth pit 24"

WETLAND DETERMINATION

| | |
|---|--|
| Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes No Wetland Hydrology Present? <input checked="" type="radio"/> Yes No Hydric Soils Present? <input checked="" type="radio"/> Yes No | Is the Sampling Point within the Wetland? <input checked="" type="radio"/> Yes No |
|---|--|

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|--|--------------------|--|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & JH Hunter | Project No: | Date: 3-Jun-2005 County: Rensselaer State: New York Plot ID: 10 |
|--|--------------------|--|

SOILS

Map Unit Name (Series and Phase): Bernardston gravelly silt loam 15-25% slopes
Map Symbol: BeD **Drainage Class:** Well Drained **Mapped Hydric Inclusion?**
Taxonomy (Subgroup): Oxyaquic Dystrudept **Field Observations Confirm Mapped Type?** Yes No

Profile Description

| Depth (inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Color (Munsell Moist) | Mottle Abundance/Contrast | | Texture, Concretions, Structure, etc |
|----------------|---------|------------------------------|------------------------------|---------------------------|----------|--------------------------------------|
| 4-0 | 0 | N/A | N/A | N/A | N/A | Silt loam |
| 0-20 | A | 10YR4/3 | N/A | N/A | N/A | Silt loam |
| 20+ | B | 10YR3/2 | 7.5YR6/8 | Common | Distinct | Silty clay |

Hydric Soil Indicators:

| | |
|---|--|
| <u>NO</u> Histosol <u>NO</u> Histic Epipedon <u>NO</u> Sulfidic Odor <u>NO</u> Aquic Moisture Regime <u>NO</u> Reducing Conditions <u>NO</u> Gleyed or Low Chroma Colors | <u>NO</u> Concretions <u>NO</u> High Organic Content in Surface Layer in Sandy Soils <u>NO</u> Organic Streaking in Sandy Soils <u>NO</u> Listed on Local Hydric Soils List <u>NO</u> Listed on National Hydric Soils List <u>NO</u> Other (Explain in Remarks) |
|---|--|

Remarks:
 Concretions @ 26", mottles too deep, very dry....20' downhill from wet "O"

WETLAND DETERMINATION

| | |
|--|---|
| Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Hydric Soils Present? Yes <input type="radio"/> No <input checked="" type="radio"/> | Is the Sampling Point within the Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/> |
|--|---|

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|--|---------------------|---|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & JHunter | Project No.: | Date: 21-Jul-2005 County: Rensselaer State: New York Plot ID: 15 |
|--|---------------------|---|

| | |
|--|--|
| Do Normal Circumstances exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation:)? <input type="radio"/> Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? <input type="radio"/> Yes <input checked="" type="radio"/> No (If needed, explain on the reverse side) | Community ID: PSSE / scrub-shrub Transect ID: WET "Q" Field Location: |
|--|--|

VEGETATION (USFWS Region No. 1)

| Dominant Plant Species(Latin/Common) | Stratum | Indicator | Plant Species(Latin/Common) | Stratum | Indicator |
|--------------------------------------|---------|-----------|-----------------------------|---------|-----------|
| <i>Onoclea sensibilis</i> | Herb | FACW | <i>Aronia arbutifolia</i> | Shrub | FACW |
| Fern, Sensitive | | | Chokeberry, Red | | |
| <i>Acorus calamus</i> | Herb | OBL | <i>Aronia melanocarpa</i> | Shrub | FAC |
| Sweetflag | | | Chokeberry, Black | | |
| <i>Impatiens capensis</i> | Herb | FACW | <i>Ulmus rubra</i> | Tree | FAC |
| Touch-Me-Not, Spotted | | | Elm, Slippery | | |
| <i>Eupatoriadelphus maculatus</i> | Herb | FACW | <i>Acer rubrum</i> | Tree | FAC |
| Joe-Pye-Weed, Spotted | | | Maple, Red | | |
| <i>Ilex verticillata</i> | Shrub | FACW+ | | | |
| Winterberry, Common | | | | | |
| | | | | | |
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| | |
|---|--|
| Percent of Dominant Species that are OBL, FACW or FAC: (excluding FAC-) 9/9 = 100.00% | FAC Neutral: 6/6 = 100.00% Numeric Index: 20/9 = 2.22 |
|---|--|

Remarks:

HYDROLOGY

| | |
|---|--|
| <u>NO</u> Recorded Data(Describe in Remarks): <u>N/A</u> Stream, Lake or Tide Gauge <u>N/A</u> Aerial Photographs <u>N/A</u> Other <u>YES</u> No Recorded Data Field Observations Depth of Surface Water: N/A (in.) Depth to Free Water in Pit: +/- 8 (in.) Depth to Saturated Soil: = 0 (in.) | Wetland Hydrology Indicators Primary Indicators <u>NO</u> Inundated <u>YES</u> Saturated in Upper 12 Inches <u>NO</u> Water Marks <u>NO</u> Drift Lines <u>NO</u> Sediment Deposits <u>NO</u> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <u>YES</u> Oxidized Root Channels in Upper 12 Inches <u>NO</u> Water-Stained Leaves <u>NO</u> Local Soil Survey Data <u>YES</u> FAC-Neutral Test <u>NO</u> Other (Explain in Remarks) |
|---|--|

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|--|--------------------|---|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & J LHunter | Project No: | Date: 21-Jul-2005 County: Rensselaer State: New York Plot ID: 15 |
|--|--------------------|---|

SOILS

| | |
|--|---|
| Map Unit Name (Series and Phase): Pittstown gravelly silt loam 8-15% slopes Map Symbol: PtC Drainage Class: Moderately well drained Taxonomy (Subgroup): Aquic Dystrudepts Profile Description | Mapped Hydric Inclusion? Field Observations Confirm Mapped Type? Yes <input type="radio"/> No <input checked="" type="radio"/> |
|--|---|

| Depth (inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Color (Munsell Moist) | Mottle Abundance/Contrast | | Texture, Concretions, Structure, etc |
|----------------|---------|------------------------------|------------------------------|---------------------------|----------|--------------------------------------|
| 2-0 | 0 | N/A | N/A | N/A | N/A | Silt loam |
| 0-6 | A | 10YR3/1 | 10YR5/8 | Many | Distinct | Silty clay |
| 6+ | B | 10YR4/1 | 10YR5/6 10YR6/8 | Many | Distinct | Clay |

| | |
|--|--|
| Hydric Soil Indicators: <u>NO</u> Histosol <u>NO</u> Histic Epipedon <u>NO</u> Sulfidic Odor <u>NO</u> Aquic Moisture Regime <u>NO</u> Reducing Conditions <u>YES</u> Gleyed or Low Chroma Colors | <u>NO</u> Concretions <u>NO</u> High Organic Content in Surface Layer in Sandy Soils <u>NO</u> Organic Streaking in Sandy Soils <u>NO</u> Listed on Local Hydric Soils List <u>NO</u> Listed on National Hydric Soils List <u>NO</u> Other (Explain in Remarks) |
|--|--|

Remarks:

WETLAND DETERMINATION

| | |
|--|---|
| Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes <input type="radio"/> No Wetland Hydrology Present? <input checked="" type="radio"/> Yes <input type="radio"/> No Hydric Soils Present? <input checked="" type="radio"/> Yes <input type="radio"/> No | Is the Sampling Point within the Wetland? <input checked="" type="radio"/> Yes <input type="radio"/> No |
|--|---|

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|---|--------------------|---|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & JLHunter | Project No: | Date: 21-Jul-2005 County: Rensselaer State: New York Plot ID: 16 |
|---|--------------------|---|

| | |
|--|--|
| Do Normal Circumstances exist on the site? Yes <input checked="" type="radio"/> No <input type="radio"/> Is the site significantly disturbed (Atypical Situation:)? Yes <input type="radio"/> No <input checked="" type="radio"/> Is the area a potential Problem Area? Yes <input type="radio"/> No <input checked="" type="radio"/> (If needed, explain on the reverse side) | Community ID: Upland Forest Transect ID: UP "Q" Field Location: |
|--|--|

VEGETATION (USFWS Region No. 1)

| Dominant Plant Species(Latin/Common) | Stratum | Indicator | Plant Species(Latin/Common) | Stratum | Indicator |
|---|---------|-----------|--|---------|-----------|
| <i>Alliaria petiolata</i> Mustard, Garlic | Herb | FACU- | <i>Fraxinus americana</i> Ash, White | Shrub | FACU |
| <i>Parthenocissus quinquefolia</i> Creeper, Virginia | Herb | FACU | <i>Lonicera tatarica</i> Honeysuckle, Tartarian | Shrub | FACU* |
| <i>Celastrus scandens</i> Bitter-Sweet, American | Herb | FACU- | <i>Acer rubrum</i> Maple, Red | Tree | FAC |
| <i>Carex pensylvanica</i> Pennsylvania Sedge | Herb | NI | <i>Fraxinus americana</i> Ash, White | Tree | FACU |
| <i>Celastrus scandens</i> Bitter-Sweet, American | Vine | FACU- | <i>Quercus alba</i> Oak, White | Tree | FACU- |
| <i>Cornus florida</i> Dogwood, Flowering | Shrub | FACU- | | | |
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| | |
|---|---|
| Percent of Dominant Species that are OBL, FACW or FAC: (excluding FAC-) 1/10 = 10.00% | FAC Neutral: 0/9 = 0.00% Numeric Index: 39/10 = 3.90 |
|---|---|

Remarks:

HYDROLOGY

| | |
|--|---|
| <u>NO</u> Recorded Data(Describe in Remarks): <u>N/A</u> Stream, Lake or Tide Gauge <u>N/A</u> Aerial Photographs <u>N/A</u> Other <u>YES</u> No Recorded Data Field Observations Depth of Surface Water: N/A (in.) Depth to Free Water in Pit: N/A (in.) Depth to Saturated Soil: N/A (in.) | Wetland Hydrology Indicators Primary Indicators <u>NO</u> Inundated <u>NO</u> Saturated in Upper 12 Inches <u>NO</u> Water Marks <u>NO</u> Drift Lines <u>NO</u> Sediment Deposits <u>NO</u> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <u>NO</u> Oxidized Root Channels in Upper 12 Inches <u>NO</u> Water-Stained Leaves <u>NO</u> Local Soil Survey Data <u>NO</u> FAC-Neutral Test <u>NO</u> Other (Explain in Remarks) |
|--|---|

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|---|--------------------|---|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & J.L.Hunter | Project No: | Date: 21-Jul-2005 County: Rensselaer State: New York Plot ID: 16 |
|---|--------------------|---|

SOILS

| | |
|--|--|
| Map Unit Name (Series and Phase): Pittstown gravelly silt loam 8-15% slopes | Mapped Hydric Inclusion? |
| Map Symbol: PtC Drainage Class: Moderatly well drained | Field Observations Confirm Mapped Type? Yes <input type="radio"/> No <input checked="" type="radio"/> |
| Taxonomy (Subgroup): Aquic Dystrudepts | |

Profile Description

| Depth (inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Color (Munsell Moist) | Mottle Abundance/Contrast | Mottle | Texture, Concretions, Structure, etc |
|----------------|---------|------------------------------|------------------------------|---------------------------|--------|--------------------------------------|
| 2-0 | 0 | N/A | N/A | N/A | N/A | Silt loam |
| 0-11 | A | 10YR4/3 | N/A | N/A | N/A | Silt loam |
| 11+ | B | 10YR4/4 | N/A | N/A | N/A | Silt, Trace gravel |

Hydric Soil Indicators:

| | |
|---|--|
| <u>NO Histosol</u> <u>NO Histic Epipedon</u> <u>NO Sulfidic Odor</u> <u>NO Aquic Moisture Regime</u> <u>NO Reducing Conditions</u> <u>NO Gleyed or Low Chroma Colors</u> | <u>NO Concretions</u> <u>NO High Organic Content in Surface Layer in Sandy Soils</u> <u>NO Organic Streaking in Sandy Soils</u> <u>NO Listed on Local Hydric Soils List</u> <u>NO Listed on National Hydric Soils List</u> <u>NO Other (Explain in Remarks)</u> |
|---|--|

Remarks:
 Depth pit 18"

WETLAND DETERMINATION

| | |
|---|--|
| Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Hydric Soils Present? Yes <input type="radio"/> No <input checked="" type="radio"/> | Is the Sampling Point within the Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/> |
|---|--|

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|--|---------------------|---|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & JH Hunter | Project No.: | Date: 21-Jul-2005 County: Rensselaer State: New York Plot ID: 17 |
|--|---------------------|---|

| | |
|---|--|
| Do Normal Circumstances exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? Yes <input type="radio"/> No <input checked="" type="radio"/> Is the area a potential Problem Area? Yes <input type="radio"/> No <input checked="" type="radio"/> (If needed, explain on the reverse side) | Community ID: PSSE / scrub shrub Transect ID: WET "R" Field Location: |
|---|--|

VEGETATION (USFWS Region No. 1)

| Dominant Plant Species(Latin/Common) | Stratum | Indicator | Plant Species(Latin/Common) | Stratum | Indicator |
|--|---------|-----------|---|---------|-----------|
| <i>Eupatoriadelphus maculatus</i> Joe-Pye-Weed, Spotted | Herb | FACW | <i>Glyceria striata</i> Grass, Fowl Manna | Herb | OBL |
| <i>Onoclea sensibilis</i> Fern, Sensitive | Herb | FACW | <i>Ilex verticillata</i> Winterberry, Common | Shrub | FACW+ |
| <i>Carex stricta</i> Sedge, Upright | Herb | OBL | <i>Ulmus rubra</i> Elm, Slippery | Tree | FAC |
| <i>Carex crinita</i> Sedge, Fringed | Herb | OBL | <i>Acer rubrum</i> Maple, Red | Tree | FAC |
| <i>Juncus effusus</i> Rush, Soft | Herb | FACW+ | | | |
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|---|--|
| Percent of Dominant Species that are OBL, FACW or FAC: (excluding FAC-) 9/9 = 100.00% | FAC Neutral: 7/7 = 100.00% Numeric Index: 17/9 = 1.89 |
|---|--|

Remarks:

HYDROLOGY

| | |
|--|---|
| <p><u>NO</u> Recorded Data(Describe in Remarks): <u>N/A</u> Stream, Lake or Tide Gauge <u>N/A</u> Aerial Photographs <u>N/A</u> Other</p> <p><u>YES</u> No Recorded Data</p> <p>Field Observations</p> <p>Depth of Surface Water: N/A (in.) Depth to Free Water in Pit: +/- 6 (in.) Depth to Saturated Soil: = 0 (in.)</p> | <p>Wetland Hydrology Indicators</p> <p>Primary Indicators <u>NO</u> Inundated <u>YES</u> Saturated in Upper 12 Inches <u>NO</u> Water Marks <u>NO</u> Drift Lines <u>NO</u> Sediment Deposits <u>NO</u> Drainage Patterns in Wetlands</p> <p>Secondary Indicators (2 or more required): <u>YES</u> Oxidized Root Channels in Upper 12 Inches <u>NO</u> Water-Stained Leaves <u>NO</u> Local Soil Survey Data <u>YES</u> FAC-Neutral Test <u>NO</u> Other (Explain in Remarks)</p> |
|--|---|

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|--|--------------------|---|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & JHunter | Project No: | Date: 21-Jul-2005 County: Rensselaer State: New York Plot ID: 17 |
|--|--------------------|---|

SOILS

Map Unit Name (Series and Phase): Hoosic gravelly sily loam 0-3 % slopes
Map Symbol: HoA **Drainage Class:** Somewhat excessively drained **Mapped Hydric Inclusion?**
Taxonomy (Subgroup): Typic Dystrudepts **Field Observations Confirm Mapped Type?** Yes No

Profile Description

| Depth (inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Color (Munsell Moist) | Mottle Abundance/Contrast | | Texture, Concretions, Structure, etc |
|----------------|---------|------------------------------|------------------------------|---------------------------|-----------|--------------------------------------|
| 2-0 | O | N/A | N/A | N/A | N/A | Silt loam |
| 0-10 | A | 2.5Y4/2 | 2.5Y6/8 2.5Y4/1 | Many | Prominent | Silty clay |
| 10+ | B | 10YR3/1 | 10YR5/8 10YR4/1 | Many | Prominent | Silty clay, Trace gravel |

Hydric Soil Indicators:

| | |
|--|--|
| <u>NO</u> Histosol <u>NO</u> Histic Epipedon <u>YES</u> Sulfidic Odor <u>NO</u> Aquic Moisture Regime <u>NO</u> Reducing Conditions <u>NO</u> Gleyed or Low Chroma Colors | <u>NO</u> Concretions <u>NO</u> High Organic Content in Surface Layer in Sandy Soils <u>NO</u> Organic Streaking in Sandy Soils <u>NO</u> Listed on Local Hydric Soils List <u>NO</u> Listed on National Hydric Soils List <u>NO</u> Other (Explain in Remarks) |
|--|--|

Remarks:

WETLAND DETERMINATION

| | |
|--|--|
| Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes No | Is the Sampling Point within the Wetland? <input checked="" type="radio"/> Yes No |
| Wetland Hydrology Present? <input checked="" type="radio"/> Yes No | |
| Hydric Soils Present? <input checked="" type="radio"/> Yes No | |

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|--|--------------------|---|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & JHunter | Project No: | Date: 21-Jul-2005 County: Rensselaer State: New York Plot ID: 18 |
|--|--------------------|---|

| | |
|--|--|
| Do Normal Circumstances exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation:)? <input type="radio"/> Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? <input type="radio"/> Yes <input checked="" type="radio"/> No (If needed, explain on the reverse side) | Community ID: Upland Forest Transect ID: UP "R" Field Location: |
|--|--|

VEGETATION (USFWS Region No. 1)

| Dominant Plant Species(Latin/Common) | Stratum | Indicator | Plant Species(Latin/Common) | Stratum | Indicator |
|--|---------|-----------|--|---------|-----------|
| <i>Carex pensylvanica</i> Pennsylvania Sedge | Herb | NI | <i>Lonicera tatarica</i> Honeysuckle, Tartarian | Shrub | FACU* |
| <i>Solidago canadensis</i> Golden-Rod, Canada | Herb | FACU | <i>Acer saccharum</i> Maple, Sugar | Tree | FACU- |
| <i>Athyrium filix-femina</i> Fern, Subarctic Lady | Herb | FAC | <i>Acer rubrum</i> Maple, Red | Tree | FAC |
| <i>Celastrus scandens</i> Bitter-Sweet, American | Herb | FACU- | <i>Prunus serotina</i> Cherry, Black | Tree | FACU |
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|--|--|
| Percent of Dominant Species that are OBL, FACW or FAC: (excluding FAC-) 2/7 = 28.57% | FAC Neutral: 0/5 = 0.00% Numeric Index: 26/7 = 3.71 |
|--|--|

Remarks:

HYDROLOGY

| | |
|--|--|
| <p><u>NO</u> Recorded Data(Describe in Remarks): <u>N/A</u> Stream, Lake or Tide Gauge <u>N/A</u> Aerial Photographs <u>N/A</u> Other</p> <p><u>YES</u> No Recorded Data</p> <p>Field Observations</p> <p>Depth of Surface Water: N/A (in.)</p> <p>Depth to Free Water in Pit: N/A (in.)</p> <p>Depth to Saturated Soil: N/A (in.)</p> | <p>Wetland Hydrology Indicators</p> <p>Primary Indicators</p> <p><u>NO</u> Inundated <u>NO</u> Saturated in Upper 12 Inches <u>NO</u> Water Marks <u>NO</u> Drift Lines <u>NO</u> Sediment Deposits <u>NO</u> Drainage Patterns in Wetlands</p> <p>Secondary Indicators (2 or more required):</p> <p><u>NO</u> Oxidized Root Channels in Upper 12 Inches <u>NO</u> Water-Stained Leaves <u>NO</u> Local Soil Survey Data <u>NO</u> FAC-Neutral Test <u>NO</u> Other (Explain in Remarks)</p> |
|--|--|

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|--|--------------------|---|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & J LHunter | Project No: | Date: 21-Jul-2005 County: Rensselaer State: New York Plot ID: 18 |
|--|--------------------|---|

SOILS

Map Unit Name (Series and Phase): Hoosic gravelly sily loam 0-3 % slopes
Map Symbol: HoA **Drainage Class:** Somewhat excessively drained **Mapped Hydric Inclusion?**
Taxonomy (Subgroup): Typic Dystrudepts **Field Observations Confirm Mapped Type?** Yes No
Profile Description

| Depth (inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Color (Munsell Moist) | Mottle Abundance/Contrast | | Texture, Concretions, Structure, etc |
|----------------|---------|------------------------------|------------------------------|---------------------------|-----|--------------------------------------|
| 1-0 | 0 | N/A | N/A | N/A | N/A | Silt loam |
| 0-6 | A | 10YR4/3 | N/A | N/A | N/A | Silt loam |
| 6+ | B | 10YR4/6 | N/A | N/A | N/A | Silt loam, Trace gravel |

Hydric Soil Indicators:

| | |
|---|--|
| <u>NO</u> Histosol <u>NO</u> Histic Epipedon <u>NO</u> Sulfidic Odor <u>NO</u> Aquic Moisture Regime <u>NO</u> Reducing Conditions <u>NO</u> Gleyed or Low Chroma Colors | <u>NO</u> Concretions <u>NO</u> High Organic Content in Surface Layer in Sandy Soils <u>NO</u> Organic Streaking in Sandy Soils <u>NO</u> Listed on Local Hydric Soils List <u>NO</u> Listed on National Hydric Soils List <u>NO</u> Other (Explain in Remarks) |
|---|--|

Remarks:
 Depth of pit = 16"

WETLAND DETERMINATION

| | |
|---|--|
| Hydrophytic Vegetation Present? Yes <input type="radio"/> Yes <input checked="" type="radio"/> No Wetland Hydrology Present? Yes <input type="radio"/> Yes <input checked="" type="radio"/> No Hydric Soils Present? Yes <input type="radio"/> Yes <input checked="" type="radio"/> No | Is the Sampling Point within the Wetland? Yes <input type="radio"/> Yes <input checked="" type="radio"/> No |
|---|--|

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|---|--------------------|---|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & J.L.Hunter | Project No: | Date: 17-Jun-2005 County: Rensselaer State: New York Plot ID: 11 |
|---|--------------------|---|

SOILS

| | |
|--|---|
| Map Unit Name (Series and Phase): Bernardston gravelly silt loam 8-15% slopes Map Symbol: BeC Drainage Class: Well drained Taxonomy (Subgroup): Oxyaquic Dystrudepts Profile Description | Mapped Hydric Inclusion? Field Observations Confirm Mapped Type? Yes <input type="radio"/> No <input checked="" type="radio"/> |
|--|---|

| Depth (inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Color (Munsell Moist) | Mottle Abundance/Contrast | | Texture, Concretions, Structure, etc |
|----------------|---------|------------------------------|------------------------------|---------------------------|-----------------------|--------------------------------------|
| 4-0 | 0 | N/A | N/A | N/A | N/A | Silt loam |
| 0-4 | A | 10YR3/2 | 10YR5/8 | Few | Distinct | Silty clay, Trace gravel |
| 4+ | Bg | 2.5Y3/2 | 10YR5/8 2.5Y5/1 | Many Many | Prominent Distinct | Silty clay, Trace gravel |

| | |
|--|---|
| Hydric Soil Indicators: <u>NO</u> Histosol <u>NO</u> Histic Epipedon <u>NO</u> Sulfidic Odor <u>NO</u> Aquic Moisture Regime <u>NO</u> Reducing Conditions <u>YES</u> Gleyed or Low Chroma Colors | <u>YES</u> Concretions <u>NO</u> High Organic Content in Surface Layer in Sandy Soils <u>NO</u> Organic Streaking in Sandy Soils <u>NO</u> Listed on Local Hydric Soils List <u>NO</u> Listed on National Hydric Soils List <u>NO</u> Other (Explain in Remarks) |
|--|---|

Remarks:
 Depth pit 18"

WETLAND DETERMINATION

| | |
|--|---|
| Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes <input type="radio"/> No Wetland Hydrology Present? <input checked="" type="radio"/> Yes <input type="radio"/> No Hydric Soils Present? <input checked="" type="radio"/> Yes <input type="radio"/> No | Is the Sampling Point within the Wetland? <input checked="" type="radio"/> Yes <input type="radio"/> No |
|--|---|

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|--|--------------------|---|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & JHunter | Project No: | Date: 17-Jun-2005 County: Rensselaer State: New York Plot ID: 12 |
|--|--------------------|---|

| | |
|---|---|
| Do Normal Circumstances exist on the site? Yes <input type="radio"/> No <input type="radio"/> Is the site significantly disturbed (Atypical Situation:)? Yes <input type="radio"/> No <input checked="" type="radio"/> Is the area a potential Problem Area? Yes <input type="radio"/> No <input checked="" type="radio"/> (If needed, explain on the reverse side) | Community ID: Dry Meadow Transect ID: UP "S" Field Location: |
|---|---|

VEGETATION (USFWS Region No. 1)

| Dominant Plant Species(Latin/Common) | Stratum | Indicator | Plant Species(Latin/Common) | Stratum | Indicator |
|---|---------|-----------|---|---------|-----------|
| <i>Agrostis perennans</i> Bentgrass, Perennial | Herb | FACU | <i>Solidago canadensis</i> Golden-Rod, Canada | Herb | FACU |
| <i>Vicia americana</i> Vetch, American Purple | Herb | NI | <i>Celastrus scandens</i> Bitter-Sweet, American | Vine | FACU- |
| <i>Festuca pratensis</i> Fescue, Meadow | Herb | FACU- | <i>Rhus typhina</i> Sumac, Staghorn | Shrub | NI |
| <i>Rubus alumnus</i> Blackberry, Old Field | Herb | FACU- | <i>Rhamnus cathartica</i> Buckthorn, Common | Shrub | UPL |
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|--|--|
| Percent of Dominant Species that are OBL, FACW or FAC: (excluding FAC-) 0/6 = 0.00% | FAC Neutral: 0/6 = 0.00% Numeric Index: 25/6 = 4.17 |
|--|--|

Remarks:

HYDROLOGY

| | |
|--|---|
| <u>NO</u> Recorded Data(Describe in Remarks): <u>N/A</u> Stream, Lake or Tide Gauge <u>N/A</u> Aerial Photographs <u>N/A</u> Other <u>YES</u> No Recorded Data Field Observations Depth of Surface Water: N/A (in.) Depth to Free Water in Pit: N/A (in.) Depth to Saturated Soil: N/A (in.) | Wetland Hydrology Indicators Primary Indicators <u>NO</u> Inundated <u>NO</u> Saturated in Upper 12 Inches <u>NO</u> Water Marks <u>NO</u> Drift Lines <u>NO</u> Sediment Deposits <u>NO</u> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <u>NO</u> Oxidized Root Channels in Upper 12 Inches <u>NO</u> Water-Stained Leaves <u>NO</u> Local Soil Survey Data <u>NO</u> FAC-Neutral Test <u>NO</u> Other (Explain in Remarks) |
|--|---|

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|---|--------------------|---|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & J.L.Hunter | Project No: | Date: 17-Jun-2005 County: Rensselaer State: New York Plot ID: 12 |
|---|--------------------|---|

SOILS

| | |
|--|---|
| Map Unit Name (Series and Phase): Bernardston gravelly silt loam 8-15% slopes Map Symbol: BeC Drainage Class: Well drained Taxonomy (Subgroup): Oxyaquic Dystrudepts Profile Description | Mapped Hydric Inclusion? Field Observations Confirm Mapped Type? Yes <input type="radio"/> No <input checked="" type="radio"/> |
|--|---|

| Depth (inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Color (Munsell Moist) | Mottle Abundance/Contrast | | Texture, Concretions, Structure, etc |
|----------------|---------|------------------------------|------------------------------|---------------------------|-----|--------------------------------------|
| 3-0 | 0 | N/A | N/A | N/A | N/A | Loam, Trace gravel |
| 0-12 | A | 10YR4/3 | N/A | N/A | N/A | Silt, Trace gravel |

| | |
|---|--|
| Hydric Soil Indicators: <u>NO Histosol</u> <u>NO Histic Epipedon</u> <u>NO Sulfidic Odor</u> <u>NO Aquic Moisture Regime</u> <u>NO Reducing Conditions</u> <u>NO Gleyed or Low Chroma Colors</u> | <u>NO Concretions</u> <u>NO High Organic Content in Surface Layer in Sandy Soils</u> <u>NO Organic Streaking in Sandy Soils</u> <u>NO Listed on Local Hydric Soils List</u> <u>NO Listed on National Hydric Soils List</u> <u>NO Other (Explain in Remarks)</u> |
|---|--|

| | |
|-----------------|--------------------------|
| Remarks: | Depth pit 15" to refusal |
|-----------------|--------------------------|

WETLAND DETERMINATION

| | |
|---|--|
| Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Hydric Soils Present? Yes <input type="radio"/> No <input checked="" type="radio"/> | Is the Sampling Point within the Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/> |
|---|--|

| | |
|-----------------|--|
| Remarks: | |
|-----------------|--|

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|--|--------------------|---|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & JHunter | Project No: | Date: 17-Jun-2005 County: Rensselaer State: New York Plot ID: 13 |
|--|--------------------|---|

| | | | |
|---|--|--|--|
| Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? (If needed, explain on the reverse side) | <input checked="" type="radio"/> Yes <input type="radio"/> Yes <input type="radio"/> Yes | <input type="radio"/> No <input checked="" type="radio"/> No <input checked="" type="radio"/> No | Community ID: PSSE / scrub-shrub Transect ID: WET "T" Field Location: |
|---|--|--|--|

VEGETATION (USFWS Region No. 1)

| Dominant Plant Species(Latin/Common) | Stratum | Indicator | Plant Species(Latin/Common) | Stratum | Indicator |
|--|---------|-----------|--|---------|-----------|
| <i>Lythrum salicaria</i> Loosestrife, Purple | Herb | FACW+ | <i>Carex stricta</i> Sedge, Uplight | Herb | OBL |
| <i>Onoclea sensibilis</i> Fern, Sensitive | Herb | FACW | <i>Cornus foemina</i> Dogwood, Stiff | Shrub | FAC |
| <i>Lysimachia nummularia</i> Jennie, Creeping | Herb | OBL | <i>Rosa multiflora</i> Rose, Multiflora | Shrub | FACU |
| <i>Glyceria striata</i> Grass, Fowl Manna | Herb | OBL | <i>Rhamnus cathartica</i> Buckthorn, Common | Shrub | UPL |
| <i>Solidago rugosa</i> Golden-Rod, Wrinkled | Herb | FAC | <i>Populus tremula</i> Aspen, Quaking | Tree | FACU |
| | | | | | |
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| | |
|---|--|
| Percent of Dominant Species that are OBL, FACW or FAC: (excluding FAC-) 7/10 = 70.00% | FAC Neutral: 5/8 = 62.50% Numeric Index: 26/10 = 2.60 |
|---|--|

Remarks:

HYDROLOGY

| | |
|---|--|
| <u>NO</u> Recorded Data(Describe in Remarks): <u>N/A</u> Stream, Lake or Tide Gauge <u>N/A</u> Aerial Photographs <u>N/A</u> Other <u>YES</u> No Recorded Data Field Observations Depth of Surface Water: N/A (in.) Depth to Free Water in Pit: N/A (in.) Depth to Saturated Soil: = 0 (in.) | Wetland Hydrology Indicators Primary Indicators <u>NO</u> Inundated <u>YES</u> Saturated in Upper 12 Inches <u>NO</u> Water Marks <u>NO</u> Drift Lines <u>YES</u> Sediment Deposits <u>NO</u> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <u>YES</u> Oxidized Root Channels in Upper 12 Inches <u>YES</u> Water-Stained Leaves <u>NO</u> Local Soil Survey Data <u>YES</u> FAC-Neutral Test <u>NO</u> Other (Explain in Remarks) |
|---|--|

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|--|--------------------|---|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & JH Hunter | Project No: | Date: 17-Jun-2005 County: Rensselaer State: New York Plot ID: 13 |
|--|--------------------|---|

SOILS

| | |
|--|---|
| Map Unit Name (Series and Phase): Scriba silt loam Map Symbol: SrB Drainage Class: Somewhat poorly drained Taxonomy (Subgroup): Aeric Fragiaquepts | Mapped Hydric Inclusion? Field Observations Confirm Mapped Type? Yes <input type="radio"/> No <input checked="" type="radio"/> |
|--|---|

| Depth (inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Color (Munsell Moist) | Mottle Abundance/Contrast | | Texture, Concretions, Structure, etc |
|----------------|---------|------------------------------|------------------------------|---------------------------|-----------------------|--------------------------------------|
| 2-0 | 0 | N/A | N/A | N/A | N/A | Silty clay loam |
| 0-4 | A | 10YR3/2 | 10YR5/8 10YR4/4 | Few Many | Distinct Faint | Silty clay, Trace gravel |
| 4-18 | B | 10YR3/1 | 2.5Y5/4 10YR5/8 | Many Common | Distinct Prominent | Silty clay, Trace gravel |

| | |
|--|--|
| Hydric Soil Indicators: <u>NO</u> Histosol <u>NO</u> Histic Epipedon <u>NO</u> Sulfidic Odor <u>NO</u> Aquic Moisture Regime <u>NO</u> Reducing Conditions <u>YES</u> Gleyed or Low Chroma Colors | <u>YES</u> Concretions <u>NO</u> High Organic Content in Surface Layer in Sandy Soils <u>NO</u> Organic Streaking in Sandy Soils <u>NO</u> Listed on Local Hydric Soils List <u>NO</u> Listed on National Hydric Soils List <u>YES</u> Other (Explain in Remarks) |
|--|--|

Remarks:
 alligator cracks, algal growth

WETLAND DETERMINATION

| | |
|--|---|
| Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes <input type="radio"/> No Wetland Hydrology Present? <input checked="" type="radio"/> Yes <input type="radio"/> No Hydric Soils Present? <input checked="" type="radio"/> Yes <input type="radio"/> No | Is the Sampling Point within the Wetland? <input checked="" type="radio"/> Yes <input type="radio"/> No |
|--|---|

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|--|--------------------|---|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & JHunter | Project No: | Date: 17-Jun-2005 County: Rensselaer State: New York Plot ID: 14 |
|--|--------------------|---|

| | |
|--|--|
| Do Normal Circumstances exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation:)? Yes <input type="radio"/> No <input checked="" type="radio"/> Is the area a potential Problem Area? Yes <input type="radio"/> No <input checked="" type="radio"/> (If needed, explain on the reverse side) | Community ID: Upland Forest Transect ID: UP "T" Field Location: |
|--|--|

VEGETATION (USFWS Region No. 1)

| Dominant Plant Species(Latin/Common) | Stratum | Indicator | Plant Species(Latin/Common) | Stratum | Indicator |
|---|---------|-----------|---|---------|-----------|
| <i>Solidago canadensis</i> Golden-Rod,Canada | Herb | FACU | <i>Rhamnus cathartica</i> Buckthorn,Common | Shrub | UPL |
| <i>Melilotus alba</i> Sweetclover,White | Herb | FACU- | <i>Cornus foemina</i> Dogwood,Stiff | Shrub | FAC |
| <i>Populus tremula</i> Aspen,Quaking | Shrub | FACU | <i>Populus tremula</i> Aspen,Quaking | Shrub | FACU |
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| | |
|--|--|
| Percent of Dominant Species that are OBL, FACW or FAC: (excluding FAC-) 1/6 = 16.67% | FAC Neutral: 0/5 = 0.00% Numeric Index: 24/6 = 4.00 |
|--|--|

Remarks:

HYDROLOGY

| | |
|---|---|
| <u>NO</u> Recorded Data(Describe in Remarks): <u>N/A</u> Stream, Lake or Tide Gauge <u>N/A</u> Aerial Photographs <u>N/A</u> Other <u>YES</u> No Recorded Data Field Observations Depth of Surface Water: N/A (in.) Depth to Free Water in Pit: N/A (in.) Depth to Saturated Soil: N/A (in.) | Wetland Hydrology Indicators Primary Indicators <u>NO</u> Inundated <u>NO</u> Saturated in Upper 12 Inches <u>NO</u> Water Marks <u>NO</u> Drift Lines <u>NO</u> Sediment Deposits <u>NO</u> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <u>NO</u> Oxidized Root Channels in Upper 12 Inches <u>NO</u> Water-Stained Leaves <u>NO</u> Local Soil Survey Data <u>NO</u> FAC-Neutral Test <u>NO</u> Other (Explain in Remarks) |
|---|---|

Remarks:

**DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)**

| | | |
|--|--------------------|---|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & J LHunter | Project No: | Date: 17-Jun-2005 County: Rensselaer State: New York Plot ID: 14 |
|--|--------------------|---|

SOILS

| | |
|--|---|
| Map Unit Name (Series and Phase): Scriba silt loam Map Symbol: SrB Drainage Class: Somewhat poorly drained Taxonomy (Subgroup): Aeric Fragiaquepts Profile Description | Mapped Hydric Inclusion? Field Observations Confirm Mapped Type? Yes <input type="radio"/> No <input checked="" type="radio"/> |
|--|---|

| Depth (Inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Color (Munsell Moist) | Mottle Abundance/Contrast | Texture, Concretions, Structure, etc |
|----------------|---------|------------------------------|------------------------------|---------------------------|--------------------------------------|
| 4-0 | 0 | N/A | N/A | N/A N/A | Silt loam |
| 0-12 | A | 10YR4/3 | N/A | N/A N/A | Silt, Gravelly |

| | |
|---|--|
| Hydric Soil Indicators: <u>NO</u> Histosol <u>NO</u> Histic Epipedon <u>NO</u> Sulfidic Odor <u>NO</u> Aquic Moisture Regime <u>NO</u> Reducing Conditions <u>NO</u> Gleyed or Low Chroma Colors | <u>NO</u> Concretions <u>NO</u> High Organic Content in Surface Layer in Sandy Soils <u>NO</u> Organic Streaking in Sandy Soils <u>NO</u> Listed on Local Hydric Soils List <u>NO</u> Listed on National Hydric Soils List <u>NO</u> Other (Explain in Remarks) |
|---|--|

Remarks:
Refusal @ 16"

WETLAND DETERMINATION

| | |
|---|--|
| Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Hydric Soils Present? Yes <input type="radio"/> No <input checked="" type="radio"/> | Is the Sampling Point within the Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/> |
|---|--|

Remarks:

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|--|--------------------|---|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & JHunter | Project No: | Date: 28-Jul-2005 County: Rensselaer State: New York Plot ID: 33 |
|--|--------------------|---|

| | | |
|--|---|--|
| Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation:)? Is the area a potential Problem Area? (If needed, explain on the reverse side) | <input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> Yes <input checked="" type="radio"/> No | Community ID: PFO / forested wetland Transect ID: WET "V" Field Location: |
|--|---|--|

VEGETATION (USFWS Region No. 1)

| Dominant Plant Species(Latin/Common) | Stratum | Indicator | Plant Species(Latin/Common) | Stratum | Indicator |
|--|---------|-----------|---|---------|-----------|
| <i>Symplocarpus foetidus</i> Skunk-Cabbage | Herb | OBL | <i>Glyceria striata</i> Grass,Fowl Manna | Herb | OBL |
| <i>Impatiens capensis</i> Touch-Me-Not, Spotted | Herb | FACW | <i>Ulmus rubra</i> Elm,Slippery | Shrub | FAC |
| <i>Boehmeria cylindrica</i> False-Nettle, Small-Spike | Herb | FACW+ | <i>Ulmus rubra</i> Elm,Slippery | Tree | FAC |
| <i>Onoclea sensibilis</i> Fern,Sensitive | Herb | FACW | <i>Salix nigra</i> Willow,Black | Tree | FACW+ |
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|---|--|
| Percent of Dominant Species that are OBL, FACW or FAC: (excluding FAC-) 8/8 = 100.00% | FAC Neutral: 6/6 = 100.00% Numeric Index: 16/8 = 2.00 |
|---|--|

Remarks:

HYDROLOGY

| | |
|---|---|
| <u>NO</u> Recorded Data(Describe in Remarks): <u>N/A</u> Stream, Lake or Tide Gauge <u>N/A</u> Aerial Photographs <u>N/A</u> Other <u>YES</u> No Recorded Data Field Observations Depth of Surface Water: N/A (in.) Depth to Free Water in Pit: N/A (in.) Depth to Saturated Soil: +/- 6 (in.) | Wetland Hydrology Indicators Primary Indicators <u>NO</u> Inundated <u>YES</u> Saturated in Upper 12 Inches <u>NO</u> Water Marks <u>NO</u> Drift Lines <u>NO</u> Sediment Deposits <u>YES</u> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <u>NO</u> Oxidized Root Channels in Upper 12 Inches <u>YES</u> Water-Stained Leaves <u>NO</u> Local Soil Survey Data <u>YES</u> FAC-Neutral Test <u>NO</u> Other (Explain in Remarks) |
|---|---|

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|--|--------------------|---|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & JH Hunter | Project No: | Date: 28-Jul-2005 County: Rensselaer State: New York Plot ID: 33 |
|--|--------------------|---|

SOILS

Map Unit Name (Series and Phase): Bernardston gravelly silt loam 8-15% slopes
Map Symbol: BeC **Drainage Class:** Well drained **Mapped Hydric Inclusion?**
Taxonomy (Subgroup): Oxyaquic Dystrudepts **Field Observations Confirm Mapped Type?** Yes No

Profile Description

| Depth (inches) | Horizon | Matrix Color | Mottle Color | Mottle | | Texture, Concretions, Structure, etc |
|----------------|---------|-----------------|-----------------|--------------------|----------|--------------------------------------|
| | | (Munsell Moist) | (Munsell Moist) | Abundance/Contrast | | |
| 3-0 | 0 | N/A | N/A | N/A | N/A | Silt loam |
| 0-10 | A | 10YR3/2 | N/A | N/A | N/A | Silt loam |
| 10+ | B | 10YR3/1 | 10YR5/8 | Few | Distinct | Silty clay |

Hydric Soil Indicators:

| | |
|--|--|
| <u>NO</u> Histosol <u>NO</u> Histic Epipedon <u>NO</u> Sulfidic Odor <u>NO</u> Aquic Moisture Regime <u>NO</u> Reducing Conditions <u>YES</u> Gleyed or Low Chroma Colors | <u>NO</u> Concretions <u>NO</u> High Organic Content in Surface Layer in Sandy Soils <u>NO</u> Organic Streaking in Sandy Soils <u>NO</u> Listed on Local Hydric Soils List <u>NO</u> Listed on National Hydric Soils List <u>NO</u> Other (Explain in Remarks) |
|--|--|

Remarks:
 Depth pit 22"

WETLAND DETERMINATION

| | |
|---|--|
| Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes No Wetland Hydrology Present? <input checked="" type="radio"/> Yes No Hydric Soils Present? <input checked="" type="radio"/> Yes No | Is the Sampling Point within the Wetland? <input checked="" type="radio"/> Yes No |
|---|--|

Remarks:

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|--|--------------------|---|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & JHunter | Project No: | Date: 28-Jul-2005 County: Rensselaer State: New York Plot ID: 34 |
|--|--------------------|---|

| | | |
|--|---|--|
| Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation:)? Is the area a potential Problem Area? (If needed, explain on the reverse side) | <input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> Yes <input checked="" type="radio"/> No | Community ID: Upland Forest Transect ID: UP "V" Field Location: |
|--|---|--|

VEGETATION

(USFWS Region No. 1)

| Dominant Plant Species(Latin/Common) | Stratum | Indicator | Plant Species(Latin/Common) | Stratum | Indicator |
|---|---------|-----------|--|---------|-----------|
| <i>Parthenocissus quinquefolia</i> Creeper, Virginia | Herb | FACU | <i>Celastrus scandens</i> Bitter-Sweet, American | Herb | FACU- |
| <i>Aster divaricatus</i> Aster, White Wood | Herb | NI | <i>Rhamnus cathartica</i> Buckthorn, Common | Shrub | UPL |
| <i>Athyrium filix-femina</i> Fern, Subarctic Lady | Herb | FAC | <i>Lonicera canadensis</i> Fly-Honey-Suckle, American | Shrub | FACU |
| <i>Solidago altissima</i> Golden-Rod, Tall | Herb | FACU- | <i>Fraxinus americana</i> Ash, White | Tree | FACU |
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|--|--|
| Percent of Dominant Species that are OBL, FACW or FAC: (excluding FAC-) - 1/7 = 14.29% | FAC Neutral: 0/6 = 0.00% Numeric Index: 28/7 = 4.00 |
|--|--|

Remarks:

HYDROLOGY

| | |
|--|--|
| <p><u>NO</u> Recorded Data(Describe in Remarks): <u>N/A</u> Stream, Lake or Tide Gauge <u>N/A</u> Aerial Photographs <u>N/A</u> Other</p> <p><u>YES</u> No Recorded Data</p> <p>Field Observations</p> <p>Depth of Surface Water: N/A (in.) Depth to Free Water in Pit: N/A (in.) Depth to Saturated Soil: N/A (in.)</p> | <p>Wetland Hydrology Indicators</p> <p>Primary Indicators</p> <p><u>NO</u> Inundated <u>NO</u> Saturated in Upper 12 Inches <u>NO</u> Water Marks <u>NO</u> Drift Lines <u>NO</u> Sediment Deposits <u>NO</u> Drainage Patterns in Wetlands</p> <p>Secondary Indicators (2 or more required):</p> <p><u>NO</u> Oxidized Root Channels in Upper 12 Inches <u>NO</u> Water-Stained Leaves <u>NO</u> Local Soil Survey Data <u>NO</u> FAC-Neutral Test <u>NO</u> Other (Explain in Remarks)</p> |
|--|--|

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

| | | |
|--|--------------------|---|
| Project/Site: Carriage Hill Estates Applicant/Owner: United Development Corporation Investigators: RJDunn & J.LHunter | Project No: | Date: 28-Jul-2005 County: Rensselaer State: New York Plot ID: 34 |
|--|--------------------|---|

SOILS

Map Unit Name (Series and Phase): Bernardston gravelly silt loam 8-15% slopes
Map Symbol: BeC **Drainage Class:** Well drained **Mapped Hydric Inclusion?**
Taxonomy (Subgroup): Oxyaquic Dystrudepts **Field Observations Confirm Mapped Type?** Yes No

Profile Description

| Depth (inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Color (Munsell Moist) | Mottle Abundance/Contrast | | Texture, Concretions, Structure, etc |
|----------------|---------|------------------------------|------------------------------|---------------------------|-----|--------------------------------------|
| 3-0 | 0 | N/A | N/A | N/A | N/A | Silt loam |
| 0-11 | A | 10YR4/3 | N/A | N/A | N/A | Silt loam |
| 11+ | B | 10YR5/4 | N/A | N/A | N/A | Silt loam, Trace gravel |

Hydric Soil Indicators:

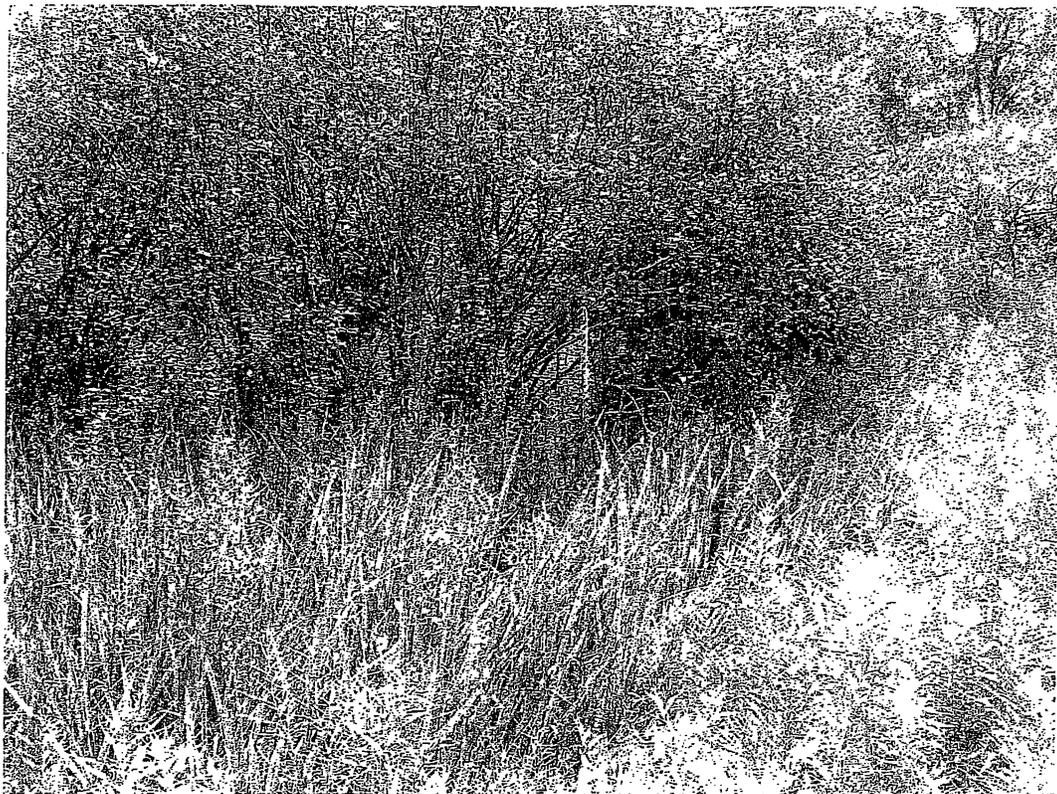
| | |
|---|--|
| <u>NO</u> Histosol <u>NO</u> Histic Epipedon <u>NO</u> Sulfidic Odor <u>NO</u> Aquic Moisture Regime <u>NO</u> Reducing Conditions <u>NO</u> Gleyed or Low Chroma Colors | <u>NO</u> Concretions <u>NO</u> High Organic Content in Surface Layer in Sandy Soils <u>NO</u> Organic Streaking in Sandy Soils <u>NO</u> Listed on Local Hydric Soils List <u>NO</u> Listed on National Hydric Soils List <u>NO</u> Other (Explain in Remarks) |
|---|--|

Remarks:
 Depth pit 24"

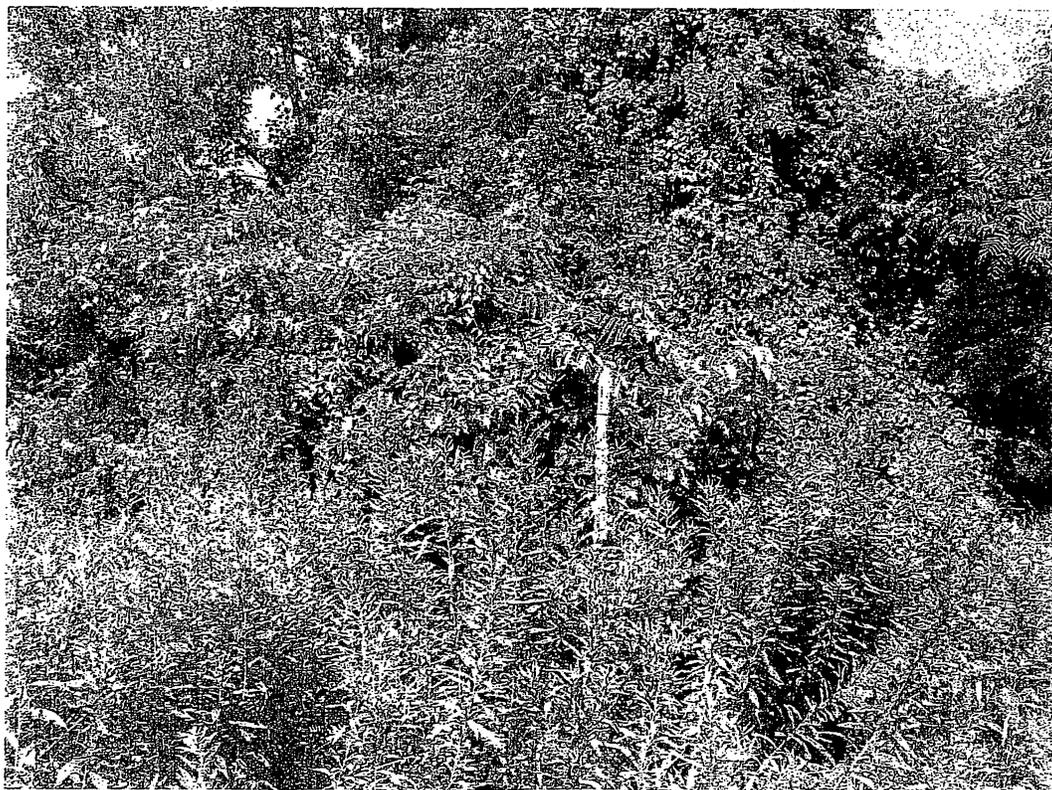
WETLAND DETERMINATION

| | |
|--|---|
| Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Hydric Soils Present? Yes <input type="radio"/> No <input checked="" type="radio"/> | Is the Sampling Point within the Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/> |
|--|---|

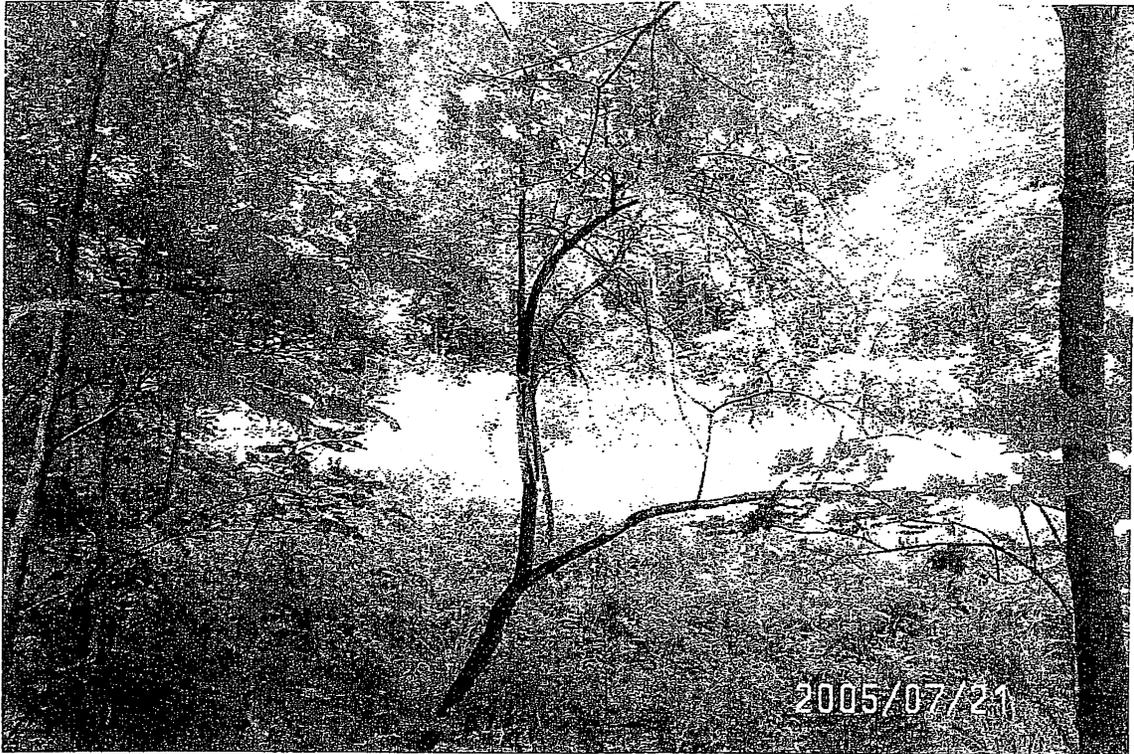
Remarks:
 no visable connection to stream



WET "E"



UP "E"



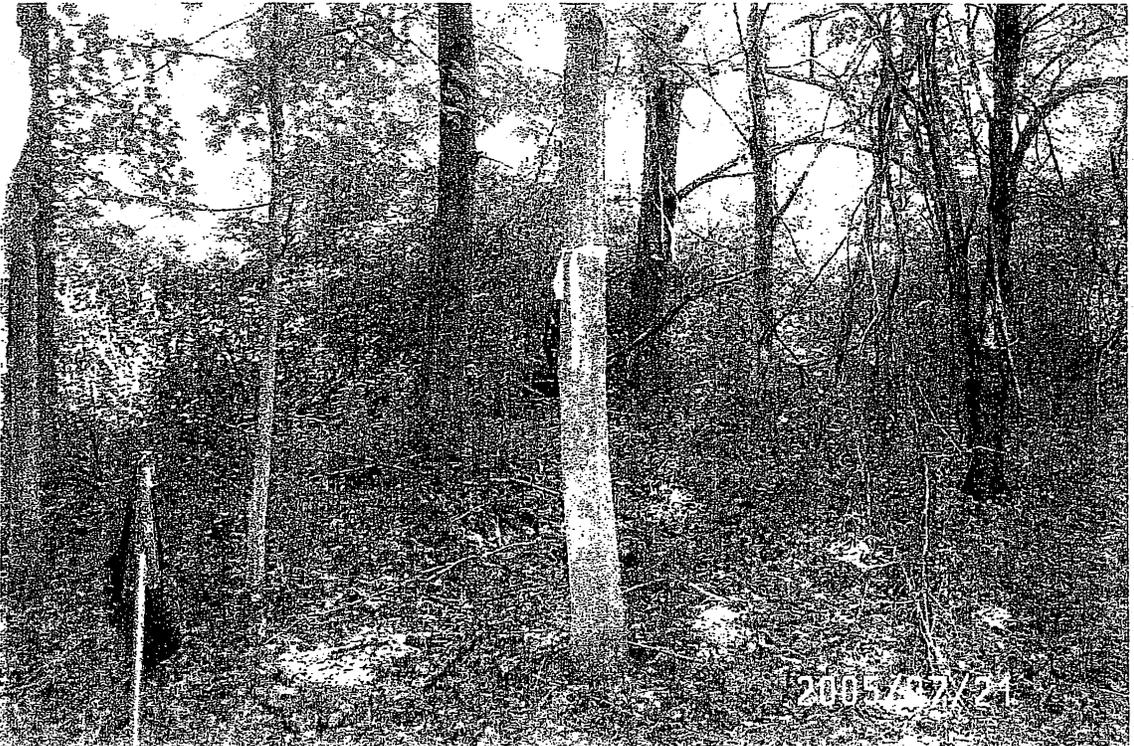
WET "F"



UP "F"



WET "G"



UP "G"



WET "H"



WET "P"



UP "H/I"



WET "M"



WET "J"



UP "J/M"



WET "L"



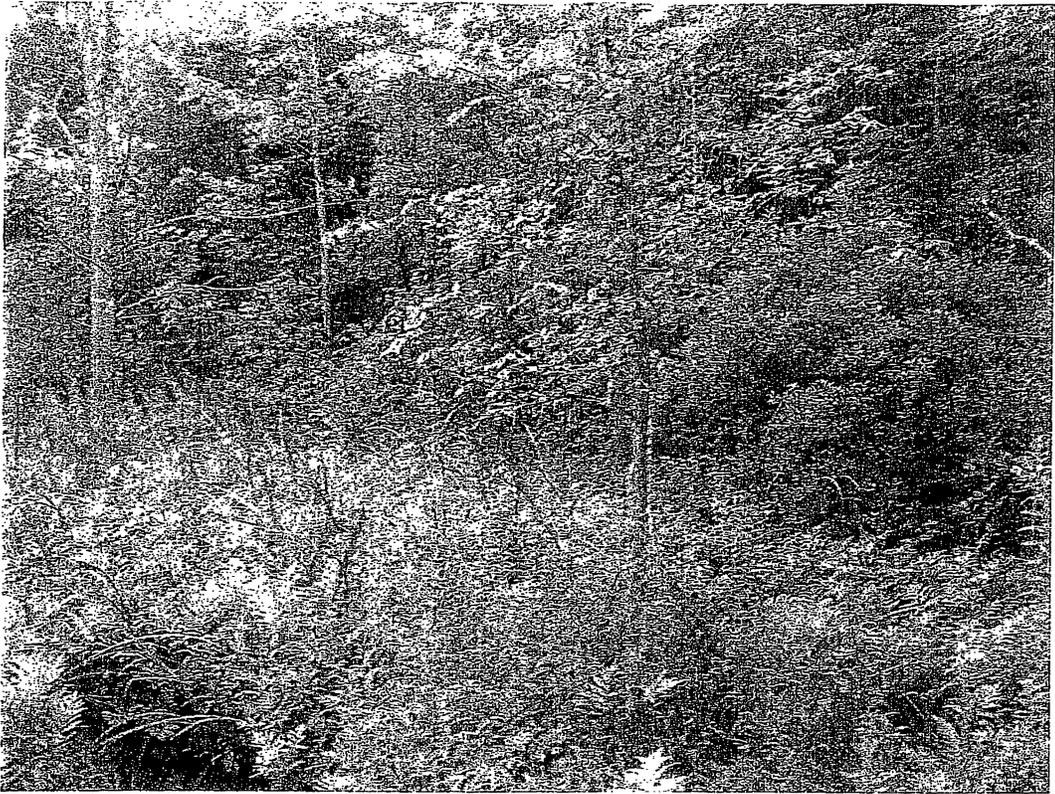
UP "L"



WET "N"



UP "N"



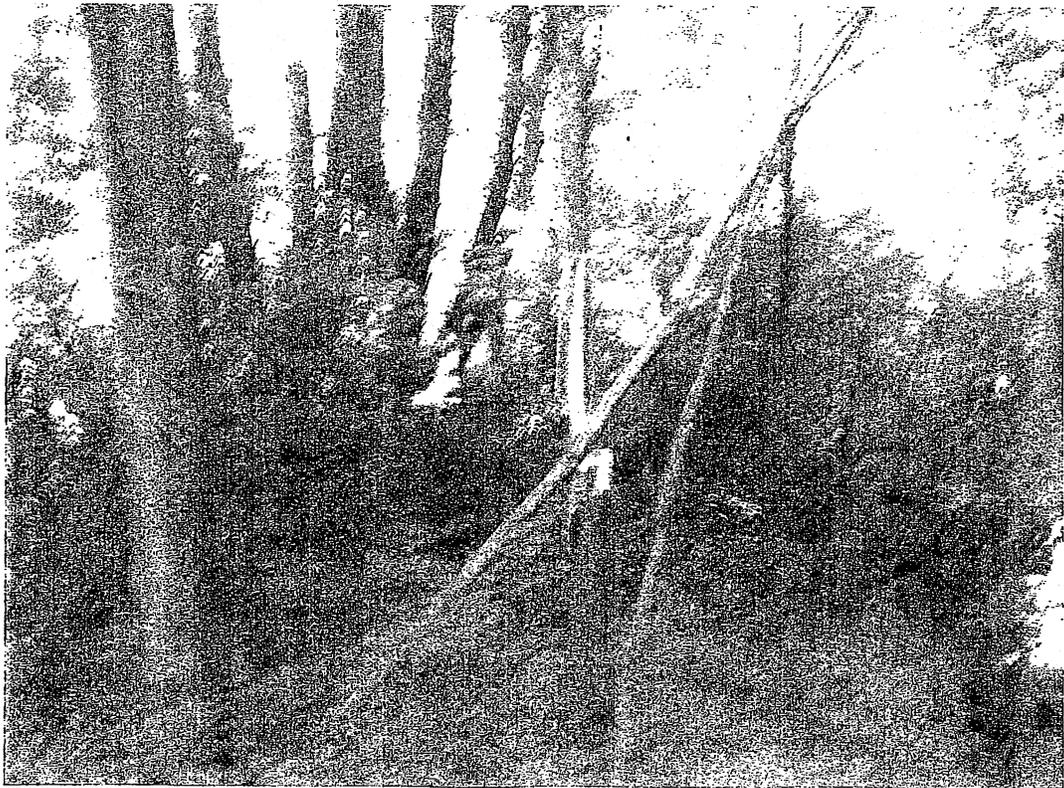
WET "Q"



UP "Q"



WET "R"



UP "R"



WET "V"



UP "V"

901
N1423078.050
E725877.000

902
N1421392.644
E723270.108

THIS AREA OF 11.21 ACRES IS
NOT IN PROJECT SCOPE AREA



| ACOE JURISDICTIONAL WETLANDS | |
|------------------------------|------------------|
| WETLAND DESIGNATION | ACREAGE |
| A | 1.49 |
| B | 1.08 |
| C | 5.46 |
| D | 0.68 |
| E | 0.23 |
| F | 0.48 |
| G | 0.07 |
| H | 0.16 |
| I | 0.39 |
| J | 0.47 |
| L | 1.13 |
| M | 0.39 |
| N | 0.32 |
| P | 0.28 |
| Q | 1.57 |
| U | 0.35 |
| TOTAL | 14.55 Ac. |

| ACOE *ISOLATED WETLANDS | |
|-------------------------|-----------------|
| WETLAND DESIGNATION | ACREAGE |
| O | 0.03 |
| R | 1.37 |
| S | 0.06 |
| T | 0.06 |
| V | 0.26 |
| TOTAL | 1.80 Ac. |

* NON-JURISDICTIONAL

| STREAM DATA | | |
|--------------|--------------|------------|
| TRIBUTARIES | TOTAL LENGTH | STREAM #'S |
| PERENNIAL | 1,834 ft. | 1,2,4,5 |
| EPHEMERAL | 442 ft. | 8 |
| INTERMITTENT | 3,920 ft. | 3,6,7,9,10 |

NOTE: STREAM 8 = 1105sq.ft.

LEGEND

- S.F. SQUARE FEET
- N/F NOW OR FORMERLY
- N NORTH
- S SOUTH
- E EAST
- W WEST
- L LIBER
- P. PAGE
- EDGE OF WOODS
- UTILITY POLE
- UTILITY WIRES
- (CAPPED) IRON ROD/PIPE FOUND
- P.O.B. POINT OF BEGINNING
- WETLAND BOUNDARY
- 902 GPS CONTROL POINT

HORIZONTAL AND VERTICAL DATA REFERENCE

- INSTRUMENTATION - TDC-1 XR, TRIMBLE RECEIVER.
- SURVEY METHOD - STATIC DIFFERENTIAL GPS
- NETWORK CONNECTIONS MEASURED NOV. 2004 AND MAY 2005.
- ELLIPSOID MODEL - WGS '84
- LINEAR UNITS - U.S. SURVEY FEET
- HORIZONTAL DATUM - NAD 1983 CONTROL POINTS 901 AND 902. POINTS 901 AND 902 ARE PART OF THE PHOTO CONTROL NETWORK.

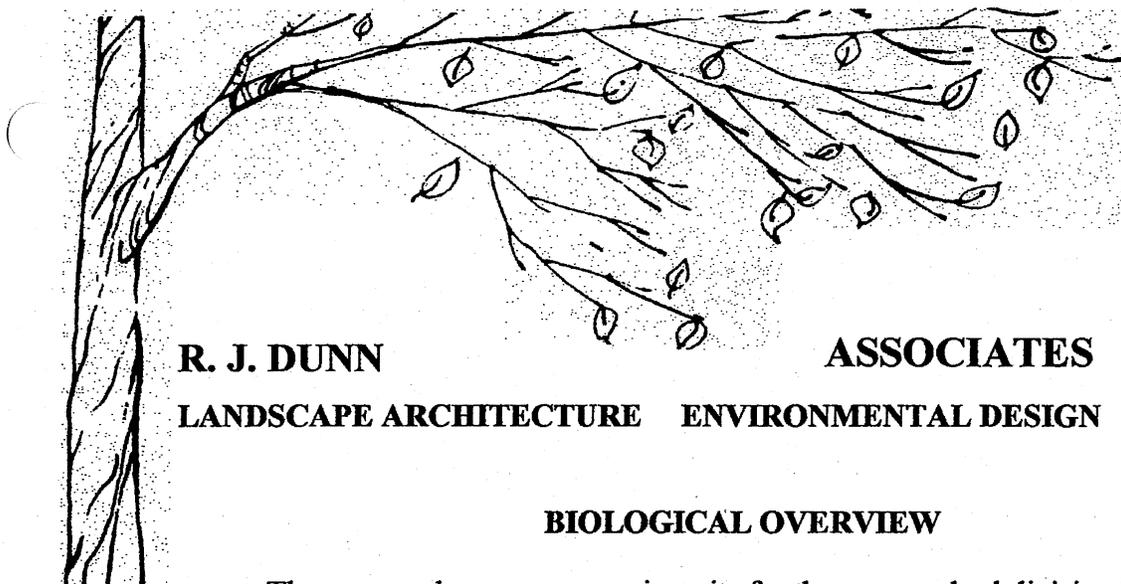
MAP REFERENCES

- MAP ENTITLED "BOUNDARY SURVEY PORTION OF LANDS OF COUNTRY CLUB PROPERTIES, INC., TOWN OF BRUNSWICK, COUNTY OF RENSSELAER PREPARED BY C.T. MALE ASSOCIATES, P.C. DATED NOV. 16, 1987, DRAWING No. 87-513R.
- WETLANDS AND TRIBUTARIES WERE DELINEATED BY R.J. DUNN ASSOCIATES 2004.
- TOPOGRAPHY TAKEN FROM SARATOGA ASSOCIATES DRAWING "SITE LAYOUT NORTH" AND "SITE LAYOUT SOUTH" DATED: 8/9/05.
- ALL POINTS REFERENCING THE ACOE WETLAND JURISDICTION WERE ESTABLISHED USING GLOBAL POSITIONING SYSTEM (GPS). ALL GPS DATUM IS BASED ON NEW YORK STATE PLANE COORDINATE (NY EAST ZONE) NORTH AMERICAN DATUM 1983 (+ ADJUSTED 1996).
- TOTAL AREA WITHIN PROPERTY LINE IS 225.5 ACRES. TOTAL AREA OF PROJECT SCOPE IS 214.3 ACRES.



C:\PROJECTS\2004\11-21-04\11-21-04.DWG DATE: OCT 04, 2004 TIME: 1:54 PM

Biological Overview



R. J. DUNN

ASSOCIATES

LANDSCAPE ARCHITECTURE

ENVIRONMENTAL DESIGN

BIOLOGICAL OVERVIEW

The proposed acre project site for the proposed subdivision is bordered to the north by NYS Route 2 and the Posten Kill Creek, to the west by the Troy Country Club, to the south by Pinewoods Avenue (County Route 40) and to the east by single family homes. The center of the property is traversed by a Niagara Mohawk easement running north to south. The site consists of undeveloped forest and abandoned fields in various stages of re-growth. Various vegetative communities were noted during the process of performing the wetland delineation.

Several different types of wetland communities were located on site. Shallow emergent marsh is found in the more open poorly drained and saturated areas and merges into shrub swamp and/or red maple swamp. Observed plants include within the shallow emergent marsh areas include cattails (*Typha*), sedge (*Carex* spp.), manna grass (*Glyceria*), bulrush (*Scirpus*), goldenrod (*Solidago*), joe-pye weed (*Eupatorium maculatum*), smartweed (*Polygonum*), jewelweed (*Impatiens capensis*), reed canary grass (*Phalaris anmdinacea*), purple loosestrife (*Lythrum salicaria*), blue flag iris (*Iris versicolor*) sensitive fern (*Onoclea sensibilis*), royal and cinnamon ferns (*Osmunda*), and rush (*Juncus*). Scattered shrubs were observed including alder (*Alnus rugosa*), dogwoods (*Comus*), willows (*Salix* spp.), and meadow sweet (*Spiraea alba*).

The shrub swamp community consists of over 50% shrubs and mostly serves as a transition between the marsh and upland communities. Plant species found were alder (*Alnus rugosa*), red osier dogwood (*Comus sericea*), silky dogwood (*G. amomum*), gray dogwood (*C. foemina*), willows (*Salix* spp.), steeple-bush (*Spiraea tomentosa*), winterberry (*Rex verticillata*), and arrowwood (*Viburnum recognitum*).

The red maple-hardwood swamp occurs mostly in poorly drained depressions. Red maple will often dominate the canopy or be co-dominant with other hardwoods. Additionally, there can be a well developed shrub layer of many of the shrubs found in the shrub swamp community. Many plants characteristic of the emergent marsh are found in the diverse herbaceous layer. Observed hardwoods include green ash (*Fraxinus pennsylvanica*), elms (*Ulmus americana* and *U. rubra*), and ironwood (*Carpinus carolinianus*).

Upland communities on site range from successional old fields and shrub lands to an oak-hickory forest. A successional old field is a meadow dominated by forbs and grasses occurring on sites that have been cleared, plowed and later abandoned. This community is prominent throughout the site. Characteristic herbs include goldenrods (*Solidago spp.* and *Euthamia spp.*), ryegrass (*Lolium perenne*), timothy (*Phleum pratense*), bentgrass (*Agrostis repens*), smooth brome (*Bromus inermis*), orchard grass (*Dactylis glomerata*), oldfield cinquefoil (*Potentilla simplex*), yarrow (*Achillea millefolium*), New England aster (*Aster novae-angliae*), wild strawberry (*Fragaria virginiana*), Queen Anne's lace (*Daucus carota*), ragweed (*Ambrosia artemisiifolia*), hawkweed (*Hieracium spp.*), and dandelion (*Taraxacum officinale*). Shrubs are sparsely located throughout this community and include gray dogwood (*Cornusfoemina*), silky dogwood (*Cornus amomum*), arrowwood (*Viburnum recognitum*), raspberries (*Rubus spp.*), and sumac (*Rhus spp.*).

Successional shrub land was found on property that has been cleared or otherwise disturbed and not maintained. This community has at least 50% cover of shrubs. Observed shrubs include gray dogwood (*Cornusfoemina*), raspberries (*Rubus spp.*), hawthorn (*Crataegus spp.*), serviceberries (*Amelanchierspp.*), choke-cherry (*Prunus virginiana*), sumac (*Rhus spp.*), viburnum (*Viburnum spp.*) and multiflora rose (*Rosa multiflora*). In addition, although not dominant, many of the plants observed in the "old field" and in the upland forest can be found in this community.

The Appalachian oak-hickory forest ecosystem is a hardwood forest that occurs on well-drained sites, usually on ridge tops, upper slopes, or south- and west-facing slopes. The soils are usually loams or sandy loams. The dominant trees include red and white oak (*Quercus*), shagbark hickory (*Carya ovata*), white ash (*Fraxinus americana*), sugar maple (*Acer saccharum*), red maple (*Acer rubrum*), black cherry (*Prunus serotina*), white pine (*Pinus strobus*), yellow birch (*Betula alleghaniensis*), and Eastern hop hombear (*Ostrya virginiana*).

The project site is typical of the developed and open space areas of the county. Soils are very tight glacial till with plant communities indigenous to this particular environment. Rare and/or endangered species are not found within the project area thus the various plant communities do not support a unique habitat.