Amended Site Plan Application Summary Hopper Condominium Association Village of Ridgewood

The 36 Hopper Ridge Townhomes located on at Lot 3, Block 4104 on 10.3 acres at the end of Durar Avenue date to the late 1980's. The original Ridgewood Planning Board Preliminary Site Plan Approval is dated 2/15/83. Final Site Plan Approval is dated 5/4/90. The site is located in the R-1A Zone wherein single-family attached residences are a permitted use. The project density at 3.5 units per acre is quite low by 2020 standards for a multi-family project.

A major feature of the site is the three on-stream detention basins to which the site and the Village storm sewer system drain to. The outflow of the 3 detention basins drain to a headwater tributary of the Ho-Ho-Kus Brook. The center townhomes are clustered around and above the detention ponds atop dated landscape tie crib walls. The three large crib landscape tie walls have reached the end of their useful life. The landscape ties are decomposing, separating and buckling and need to be repaired and supplemented.

The primary focus of this application are the <u>Necessary Proactive Measures</u> to repair and supplement the walls so they continue to serve their essential purpose in supporting the townhomes, patios and decks, site grading and the private asbestos concrete sanitary sewer line between the walls and the townhouse units before it is an emergency! A split faced textured geogrid reinforced Keystone compact segmental modular "Pecan" concrete block wall located in front of the three existing walls is proposed as the recommended, cost-effective and aesthetic solution.

A second and **optional** goal of the application is the Dredging and Environmental Enhancement of the three (3) detention basins. Additional detail is provided later in this summary and on the plans. It may be prudent to treat the application as a Bifurcated Application, the wall work as the essential element and the pond dredging and pond restoration as an optional secondary component.

Repair and Supplementing the Three Walls is a Need not a Want "The Walls are between a Rock and a Hard Place" Specifically the On-Stream Detention Ponds and a Private Asbestos Concrete Sewer Pipe

The project challenges include:

- A) Difficult access.
- B) Difficult construction.
- C) Significant expense.
- D) Adjacent to three manmade detention ponds and which are tributary to the Ho-Ho-Kus Brook.
- E) NJDEP standards including Riparian Zone Vegetation Disturbance.
- F) Protection of the Private Asbestos Concrete Sanitary Sewer to the rear of the existing landscape tie wall! Failure of the walls would have significant adverse impacts on the sanitary sewer line with the attendant significant practical and significant monetary impacts.
- G) Existing patios and decks overlap the existing crib wall.
- H) Expansion of the Upper Detention Pond is a central element of the project in order to compensate for the relocation of the walls into the detention basins.

- I) Dredging, restoration and environmental enhancement of the Upper, Middle & Lower Ponds is an optional component of the project. Assistance from the Village and Bergen County Mosquito Commission is requested as the detention ponds receive runoff from 60 upslope acres via the Village storm sewer system.
- J) Replacement Landscaping with a focus on Native Riparian Zone Vegetation.

This is a Major Preliminary and Final Site Plan Application for Amended Site Plan Approval and a Major Soil Movement Application to repair and supplement the dated landscape tie crib walls with a modern improved aesthetic engineered alternative in a slightly modified location. The tie crib walls shall be supplemented with Geogrid Reinforced Split Textured Face Blended Color "Pecan" (or equal) Keystone Compact Segmental Concrete Block Retaining Walls in front of the existing walls.

Specific Village of Ridgewood Planning Board Approvals being requested includes the following:

- 1) A Variance of Section 190-124 F (3) c (3) of the Village Code which limits retaining walls to 12'. The existing walls have a maximum height of 12.6'. For construction and efficiency purposes, the existing two-tier walls are proposed to be replaced with single walls. The proposed wall above the middle pond has a maximum height of 12.33' for a length of 42' due to topographic conditions. This is approximately 6.7% of the 634 LF of proposed wall. A 1' variance is requested to allow for variable pond bottom conditions. It is emphasized that the retaining walls are in the center of a 10.3-acre site hidden by the ravine-style topography, berms and the townhouses units themselves. The one exception being the north end of the wall behind 49 Kira Lane where a Norway Spruce is proposed to be planted to buffer the wall.
- 2) A Variance of Section 190-120H of the Village Code which regulates development in the Riparian Zone. This variance request is a necessity as the walls are within the Riparian Zone. The original Site Plan Approval dates to 1983, some 21 years prior to the 2004 NJDEP Riparian Zone rules and regulations. The Riparian Zone disturbance shall be the subject of an application to the NJDEP Division of Land Resource Protection (DLRP) and the applicant requests that the NJDEP DLRP review supersede the Village Code. The applicant stipulates that the Village Approval would be subject to NJDEP Approval.
- 3) Any other Approvals, Waivers and Variances the Board deems prudent or necessary.
- 4) Waiver of cost generative Site Plan Checklist items not directly related to the retaining wall, particularly as this is an Amended Site Plan Application.
- 5) The soil movement import associated with the wall construction is on the order of 1993 CY. The Soil Movement for the optional dredging of the 3 ponds depending on the HOA budget ranges from 973 CY to 1,946 CY. The excavation for the expansion of the Upper Detention Pond is an additional 323 CY. The total soil movement export if all 3 ponds are dredged would be 2269 CY. A Major Soil Movement is requested. A summary is provided below.

Wall Summary

Wall	Length	Max Height	Face Footage
Lower	174'	8'	1700 SF
Middle	276'	12.33'*	2775 SF
<u>Upper</u>	<u>174'</u>	8.33'	1403 SF
	624'		5878 + 416 Cap Block = 160 Pallets

^{*} Existing walls have max height of 12.6'

Crushed Stone In Cubic Yards

Wall	Leveling Pad 7 ft ³ /ft	Drainage	Core Fill	<u>Hydrostatic</u>	Cribwall Drainage
	2.7 ft ³ /ft	1 ft ³ /ft ²	CY	CY	CY
Lower	18	63	22.3	85.1	6.4
<u>Middle</u>	28	103	39.5	120.6	10.3
<u>Upper</u>	<u>18</u>	_52	22.8	90.6	6.4
	64	218	85	297	23

Total Crushed Stone = 637 CY = Import of 38 Truckloads

Wall	Geogrid Reinforced Fill	Topsoil – Graded 3H:1V Slopes
Lower	500 CY	48.3
<u>Middle</u>	1,035 CY	77.2
<u>Upper</u>	458 CY	48.3
<u>Total</u>	1993 CY = Import of 110	173.8
	Truckloads	

Area of Disturbance

	<u>Pond</u>	<u>Wall</u>
Lower	14,560 SF	8,861 SF
<u>Middle</u>	7,309 SF	5,667 SF
<u>Upper</u>	<u>4,400 SF</u>	_7,148 SF
	26,269 SF	21,676 SF

Tree Removal and Replacement

16 trees are necessary to be removed. 26 Native Riparian Trees proposed to be planted. There is no tree removal proposed in the area between the top of the existing walls and the rear of the townhouse units. Expansion of the North Upper Detention Pond will result in disturbance of the Bamboo Grove. Access routes may also disturb the bamboo grove. Chapter 260 of the Ridgewood Village Code prohibits the planting of Bamboo as it is a non-native invasive species, the removal and eradication of Bamboo is encouraged by Chapter 260. See attachment. The NJDEP Ripuarian Zone regulations encourage the use of native riparian zone vegetation which is what is specified on the Tree Replacement Chart on Plan Sheet 26.

Sequence of Construction

A detailed sequence of construction is provided on Plan Sheet 2 of 3. With coordination, good weather, and presuming Saturday workdays, the wall project is a 3-month project.

Soil Movement Pond Reclamation and Environmental Enhancement

Pond	Area (SF)	Silt @ 1', CY	Silt @ 2', CY
Lower	14,560	539	1,078 = 60 Truckloads
Middle	7,309	271	542 = 30 Truckloads
<u>Upper</u>	4,400	<u>163</u>	326 = 18 Truckloads
	26,269	973	1,946 = 108 Truckloads

Upper Pond 2900 SF Expansion @ 3' of excavation = 322.2 CY = 18 Truckloads export.

Site Access

Site access is proposed via Durar Avenue to Kira Lane and Daniel Lane for the core of the site and the emergency access easement which leads to Cedar Avenue.

Drainage & Stormwater Management

- 1) The three (3) detention basins on-stream detention basins were constructed as part of the original 1982 project and provide for project wide stormwater management in accordance with 1982 standards as well as a regional benefit due to the onsite stream location. The combination of the size of the ponds and on-stream topographic location in the ravine topography provides for effective stormwater management. There is no "Bypass" of developed impervious surface portions of the site
- 2) The original 1982 Drainage Area Map for the for the three Detention Basins identifies the upstream offsite tributary area to be 61 Acres and the total drainage area to the Lower Detention Basin to be 70.7 Acres. The Hopper Ridge site is 10.8 Acres so the watershed wide benefits are self evident.
- 3) The entire uphill offsite 61 Acre drainage area drains via the Ridgewood storm sewer system and discharges to the Upper Detention Pond via a 32" x 54" CMP pipe after passing through a silt chamber.
- 4) The Lower Detention Basin Outlet Control Structure discharges to the original onsite open watercourse which is a headwater tributary of the Ho-Ho-Kus Brook.
- 5) A "Simple-Stupid" but effective approach is proposed to maintain the stormwater management benefits. As the stormwater storage is above the normal pond water surface of 67.1' established by the 2'-6" x 4.0' weir of the Lower Pond Outlet Control Structure, maintaining the Pond Surface Area maintains the stormwater storage. There is no change. The wall reconstruction proposes 3196 SF of fill within the ponds. The Upper Detention Basin Pond is to be expanded by 3223 SF. No change.

- 6) In addition, as it is very clear that the Upper Detention Pond is an effective silt trap, the expansion of the Upper Detention Pond will make it a more effective silt trap for the upstream 61 acres to the benefit of the two downstream ponds and watercourses.
- 7) The roof leaders of the individual townhomes to be piped through the retaining walls.
- 8) A Stage-Storage of the three ponds follows as additional information.

On-Stream Detention Basin, Ho-Ho-Kus Brook Tributary <u>Hopper Ridge Townhomes</u> Stage-Storage

Upper Pond

Elevation	Area, Ft ²	Incremental Value Ft ³	Total volume Ft ³
66	4,823	0	0
68	6,927	6,927	6,927
70	9,115	9,115	16,042
72	11,480	11,480	27,522
74	12,648.9	12,648.9	40,170.9

Middle Pond

Elevation	Area, Ft ²	Incremental Value Ft ³	Total volume Ft ³
66	7,689	0	0
68	10,259	10,259	10,259
70	12,696	12,696	22,955
72	14,564	14,564	37,519
74	16,619	16,619	54,138

Lower Pond

Elevation	Area, Ft ²	Incremental Value Ft ³	Total volume Ft ³
64	8,763	0	0
66	11,874	11,874	11,874
68	15,203	15,203	27,077
70	17,294	17,294	44,371
72	19,909	19,909	64,280
74	22,581	22,581	86,861

The Site Plan Application is being coordinated with other Government Agencies having jurisdiction. A copy of the Bergen County Planning Board letter of no further action dated 6/24/20 is attached. The Bergen County Soil Conservation District Certification # 20-2589 dated 9/23/20 is attached. The Hopper Condominium Association shall be making a Flood Hazard Area (FHA) Individual Permit Application with hardship to the NJDEP Division of Land Resource Protection for regulated activities within the three manmade on-stream detention basins and the Ho-Ho-Kus Brook Riparian Zone.

I trust this is a helpful summary.

Libor Latinesies, PE, PP



DEPARTMENT OF PLANNING AND ENGINEERING

One Bergen County Plaza – 4th Floor • Hackensack, N.J. 07601 Tel. (201) 336-6446 • Fax (201) 336-6449

James J. Tedesco III
County Executive

Joseph A. Femia, P.E. Director/ County Engineer

June 24, 2020

Conklin Associates P.O. Box 282 29 Church Street Ramsey, N.J. 07

Attn: T. Latincsics, P.E.

RE: Hopper Cond

Hopper Condominium Associates, Inc.

Retaining Wall Replacement

Sheets 2, 3 and 4 of 8 dated 11/28/16 and last revised 2/28/20

Block 4104, Lot 3 RIDGEWOOD

Dear Mr. Latincsics:

A review of the above-referenced plan indicates that no further action by us is required. If you have any questions regarding the above, please feel free to contact this office.

Sincerely,

Michael Varner Principal Planner

c: Ridgewood Planning Board Ridgewood Construction Official David Rutherford, Esq. Site Plan File



BERGEN COUNTY SOIL CONSERVATION DISTRICT

700 Kinderkamack Road, Suite 106 Oradell, New Jersey 07649 Telephone: 201-261-4407

Fax: 201-261-7573

September 23, 2020

Hopper Condominium Association Inc. 41 Kira Lane Ridgewood, NJ 07450 RE: Retaining Wall Replacement 41 Kira Lane Block 4104, Lot 3 Ridgewood, NJ Our File #20-2589

Dear Owners:

Pursuant to N.J.S.A. 4:24-39 et seq., the N.J. Soil Erosion and Sediment Control Act, the Bergen County Soil Conservation District hereby certifies the Soil Erosion and Sediment Control Plan for the above referenced project, subject to the following:

- 1. That the applicant carries out all land disturbance activities in accordance with the <u>Standards for Soil Erosion and Sediment Control in New Jersey</u> as promulgated by the State Soil Conservation Committee.
- 2. The applicant must notify the District office, by mail, at least 48 hours prior to initial land disturbance.
- 3. The owner/applicant must obtain a District-issued Report of Compliance prior to issuance of any Certificate of Occupancy by the municipality. The District requires advance notice of at least one week for the issuance of a Report of Compliance.
- 4. Changes in the certified plan relating to, or that will effect land disturbance on the site, must be submitted to the District office for reevaluation and approval.
- 5. A copy of the certified plan and a copy of these provisions must be kept on the job site at all times.

Failure to comply with any of the above conditions may result in the issuance of a Stop Work Order.

This approval is limited to the soil erosion, sedimentation and related stormwater management controls specified in the plan. It is not authorization to engage in the proposed land use unless such has been previously approved by the municipality or other controlling agency.

Sincerely yours,

Geraldine Byrne *O*District Supervisor

TREES AND SHRUBS

260 Attachment 1

Village of Ridgewood Appendix A

The following trees and vegetation are to be considered invasive species in the Village of Ridgewood. Their planting is prohibited. Their removal and eradication is encouraged.

Common Name	Scientific Name
Bamboo	
Black locust	Robinia pseudoacacia L.
Calamus tree	Acorus calamus L.
Catalpa	Catalpa bignonioides Walter.
Chinese elm	Ulmus parvifolia
Crack willow	Salix fragilis L.
Empress tree	Paulownia tomentosa (Thunb.) Steudel
Japanese cork tree	Phellodendron japonicum Maxim
Japanese maple	Acer palmatum Thunb.
Japanese knotweed	Polygonum cuspidatum Sieb. & Zucc.
Mimosa	Albizia julibrissin Durazz.
Norway maple	Acer platanoides L.
Paper mulberry	Broussonetia papyrifera (L.) Vent.
Scotch pine	Pinus sylvestris L.
Siberian elm	Ulmus pumila L.
Sweet cherry	Prunus avium L.
Tree of Heaven	Ailanthus altissima (Miller) Swingle.
Umbrella tree	Magnolia tripetala (L.) L.
White mulberry	Morus alba L.
White poplar	Populus alba L.
White willow	Salix alba L.
Yellow buckeye	Aesculus flava Ait.

New Jersey Invasive Species Strike Team 2015 DO NOT PLANT LIST PLEASE DO NOT PURCHASE ANY OF THESE SPECIES (including any of their cultivars and varieties)

		NJISST
Scientific Name	Common Name	Category
Acer ginnala	Amur maple	NJISST Target
Acer palmatum	Japanese maple	NJISST Target
Acer platanoides	Norway maple	Widespread
Acer pseudoplatanus	Sycamore maple	NJISST Target
Achyranthes japonica	Japanese chaff flower	NJISST Watch
Acorus calamus	American sweetflag	Widespread
Actinidia argute	Hardy kiwi	NJISST Target
Ailanthus altissima	Tree-of-heaven	Widespread
Akebia quinata	Chocolate vine	NJISST Target
Albizia julibrissin	Mimosa	NJISST Target
Aldrovanda vesiculosa	Water wheel plant	NJISST Watch
Alliaria petiolata	Garlic mustard	Widespread

RIDGEWOOD CODE

		NJISST
Scientific Name	Common Name	Category
Alnus glutinosa	European black alder	NJISST Target
Amorpha Fruticosa	Indigobush	NJISST Target
Ampelopsis brevipedunculata	Porcelain-berry	NJISST Target
Anthriscus sylvestris	Wild chervil	NJISST Target
Aralia elata	Japanese angelica tree	NJISST Target
Artemisia annua	Annual wormwood	NJISST Target
Artemisia stelleriana	Oldwoman	NJISST Target
Artemisia vulgaris	Mugwort	Widespread
Arthraxon hispidus	Small carpetgrass	Widespread
Arum italicum	Italian arum	NJISST Watch
Belamcanda chinensis	Blackberry lily	NJISST Watch
Berberis julianae	Wintergreen barberry	NJISST Watch
Berberis thunbergii	Japanese barberry	Widespread
Berberis vulgaris	Common barberry	NJISST Target
Buddleja davidii	Butterflybush	NJISST Target
Cabomba caroliniana	Carolina fanwort	NJISST Target
Callitriche stagnalis	European waterstarwort	NJISST Target
Cardamine impatiens	Narrowleaf bittercress	Widespread
Carex kobomugi	Japanese sedge	NJISST Target
Carex macrocephala	Largehead sedge	NJISST Target
Celastrus orbiculatus	Oriental bittersweet	Widespread
Centaurea stoebe ssp.	Spotted knapweed	Widespread
Micranthos		_
Cenchrus alopecuriodes	Black fountain grass	NJISST Watch
Cenchrus setaceus	Black fountain grass	NJISST Watch
Cirsium arvense	Canada thistle	Widespread
Clematis flammula	Fragrant clematis	NJISST Target
Clematis terniflora	Japanese clematis	NJISST Target
Conium maculatum	Poison-hemlock	NJISST Target
Cornus Kousa	Kousa dogwood	NJISST Target
Cuscuta japonica	Purple stemmed dodder	NJISST Watch
Cynanchum louiseae	Black swallowwort	NJISST Target
Cynanchum rossicum	Pale swallowwort	NJISST Target
Cyperus difformis	Variable flatsedge	NJISST Watch
Cyrtomium falcatum	Japanese net-veined holly	NJISST Watch
Craticus commission	fern	NIHOOT W. 4.1
Cytisus scoparius	Scotch broom	NJISST Watch
Deutzia scabra	Deutzia	NJISST Watch
Didymosphenia germinata	Rock snot	NJISST Target
Dioscorea polysacha	Chinese yam	NJISST Target
Dipsacus fullonum	Common teasel	Widespread
Dipsacus laciniatus	Cutleaf teasel	NJISST Target
Egeria densa	Brazilian waterweed	NJISST Target
Eichhornia crassipes	Common water hyacinth	NJISST Target
Elaeagnus angustifolia	Russian olive	NJISST Target
Elaeagnus pungens	Thorny elaeagnus	NJISST Target
Elaeagnus umbrella	Autumn olive	Widespread
Eleutherococus sieboldianus	Five-leaf aralia	NJISST Target

TREES AND SHRUBS

		NJISST
Scientific Name	Common Name	Category
Eragrostis curvula	Weeping lovegrass	NJISST Target
Euonymus alatus	Winged burning bush	Widespread
Euonymus europaeus	European spindletree	NJISST Target
Euonymus fortunei	Winter creeper	NJISST Target
Falcaria vulgaris	Sickleweed	NJISST Watch
Fallopia baldschuanicum	Bukhara fleeceflower	NJISST Target
Fallopia japonica	Japanese knotweed	NJISST Target
Fallopia sachalinensis	Giant knotweed	NJISST Target
Fatoua villosa	Hairy crabweed	NJISST Watch
Ficaria verna	Lesser celandine	Widespread
Frangula alnus	Glossy buckthorn	NJISST Target
Glossostigma cleistanthum	Mudmat	NJISST Target
Hedera helix	English ivy	NJISST Target
Heracleum mantegazzianum	Giant hogweed	NJISST Target
Hippophae rhamnoides	Seaberry	NJISST Watch
Hosta ventricosa	Blue plantain lily	NJISST Target
Houttuynia cordata	Chameleon-plant	NJISST Watch
Humulus japonicas	Japanese hop	NJISST Watch
Hyacinthoides hispanica	Hispanic hyacinthoides	NJISST Watch
Hydrilla veticillata	Hydrilla	NJISST Watch
Kalopanax septemlobus	Castor aralia	NJISST Target
Koelreuteria elegans	Golden raintree	NJISST Watch
Lamiastrum galeobdolon	Yellow archangel	NJISST Watch
Lespedeza cuneata	Sericea lespedeza	NJISST Target
Leucojum aestivum	Snowbell	NJISST Watch
Ligustrum amurense	Amur privet	NJISST Watch
Ligustrum obtusifolium	Border privet	Widespread
Ligustrum ovalifolium	California privet	NJISST Target
Ligustrum vulgare	European privet	Widespread
Lonicera caprifolium	Italian woodbine	NJISST Target
Lonicera fragrantissima	Sweet breath of spring	NJISST Target
Lonicera japonica	Japanese honeysuckle	Widespread
Lonicera maackii	Amur honeysuckle	Widespread
Lonicera morrowii	Morrow's honeysuckle	Widespread
Lonicera tatarica	Tatarian honeysuckle	Widespread
Ludwigia peploides	Creeping waterprimrose	NJISST Target
Lythrum salicaria	Purple loosestrife	Widespread
Mahonia bealei	Beale's barberry	NJISST Watch
Malus toringo	Japanese crabapple	NJISST Target
Marsilea quadrifolia	European waterclover	NJISST Target
Microstegium vimineum	Japanese stiltgrass	Widespread
Miscanthus sinensis	Chinese silvergrass	NJISST Target
Myosoton aquaticum	Giant chickweed	NJISST Target
Myriophyllum aquaticum	Parrotfeather	NJISST Target
Myriophyllum spicatum	Eurasian water-milfoil	Widespread
Najas minor	Brittleleaf naiad	NJISST Target
Nasturtium officinale	Watercress	Widespread
Nymphoides peltata	Yellow floating heart	NJISST Target

RIDGEWOOD CODE

		NJISST
Scientific Name	Common Name	Category
Oenanthe javanica	Java dropwort	NJISST Watch
Oplismenus hirtellus	Wavyleaf basketgrass	NJISST Target
Osmanthus heterophyllus	Holly osmanthus	NJISST Watch
Parthenocissus tricuspidata	Boston ivy	NJISST Target
Perilla frutescens	Beefsteakplant	NJISST Target
Persicaria orientalis	Kiss me over the garden gate	NJISST Target
Persicaria perfoliata	Mile-a-minute vine	Widespread
Phalaris arundinacea	Reed canarygrass	Widespread
Phalaris canariensis L.	Canarygrass	NJISST Target
Phellodendron amurense	Amur corktree	NJISST Target
Philadelphus inodorus	Scentless mock orange	NJISST Watch
Photinia villosa	Oriental photinia	NJISST Target
Phragmites australis	Common reed	Widespread
Pistia stratiotes	Water lettuce	NJISST Target
Poncirus trifoliate	Hardy orange	NJISST Watch
Populus alba	White poplar	NJISST Target
Populus x canescens	Gray poplar	NJISST Target
Potamogeton crispus	Curly-leaved pondweed	Widespread
Prunus subhirtella var. pendula	Weeping Higan cherry	NJISST Target
Pueraria montana var. lobata	Kudzu	NJISST Target
Pyrus betulifolia	Birchleaf pear	NJISST Watch
Pyrus calleryana	Callery pear (Bradford pear)	NJISST Target
Rhamnus cathartica	European buckthorn	NJISST Target
Rhamnus davurica	Dahurian buckthorn	NJISST Target
Rhamnus utillis	Chinese buckthorn	NJISST Watch
Rhodotypos scandens	Jetbead	NJISST Target
Ribes rubrum	Garden red current	NJISST Target
Ripidium ravennae	Hardy pampas grass	NJISST Watch
Robinia hispida	Bristly locust	NJISST Target
Robinia pseudoacacia	Black locust	Widespread
Rosa canina	Dog rose	NJISST Target
Rosa multiflora	Multiflora rose	Widespread
Rosa rugosa	Seaside rose	NJISST Target
Rubus armeniacus	Himalaya blackberry	NJISST Target
Rubus laciniatus	Cutleaf blackberry	NJISST Target
Rubus parvifolius	Western thimbleberry	NJISST Target
Robus phoenicolasius	Wine raspberry	Widespread
Salix matsudana	Chinese willow	NJISST Watch
Salvia glutinosa	Jupiter's distaff	NJISST Watch
Spiraea japonica	Japanese spiraea	NJISST Watch
Styrax japonicus	Japanese snowbell	NJISST Target
Trapa natans	European water chestnut	NJISST Target
Ulmus parvifolia	Chinese elm	NJISST Target
Ulmus procera	English elm	NJISST Target
Ulmus pumila	Siberan elm	NJISST Target
Viburnum diatatum	Linden viburmum	Widespread
Viburnum lantana	Wayfaringtree	NJISST Target
Viburnum plicatum	Japanese snowball	NJISST Target

TREES AND SHRUBS

Scientific Name	Common Name	NJISST Category
Viburnum setigerum	Tea viburnum	NJISST Target
Viburnum sieboldii	Siebold's arrowwood	NJISST Target