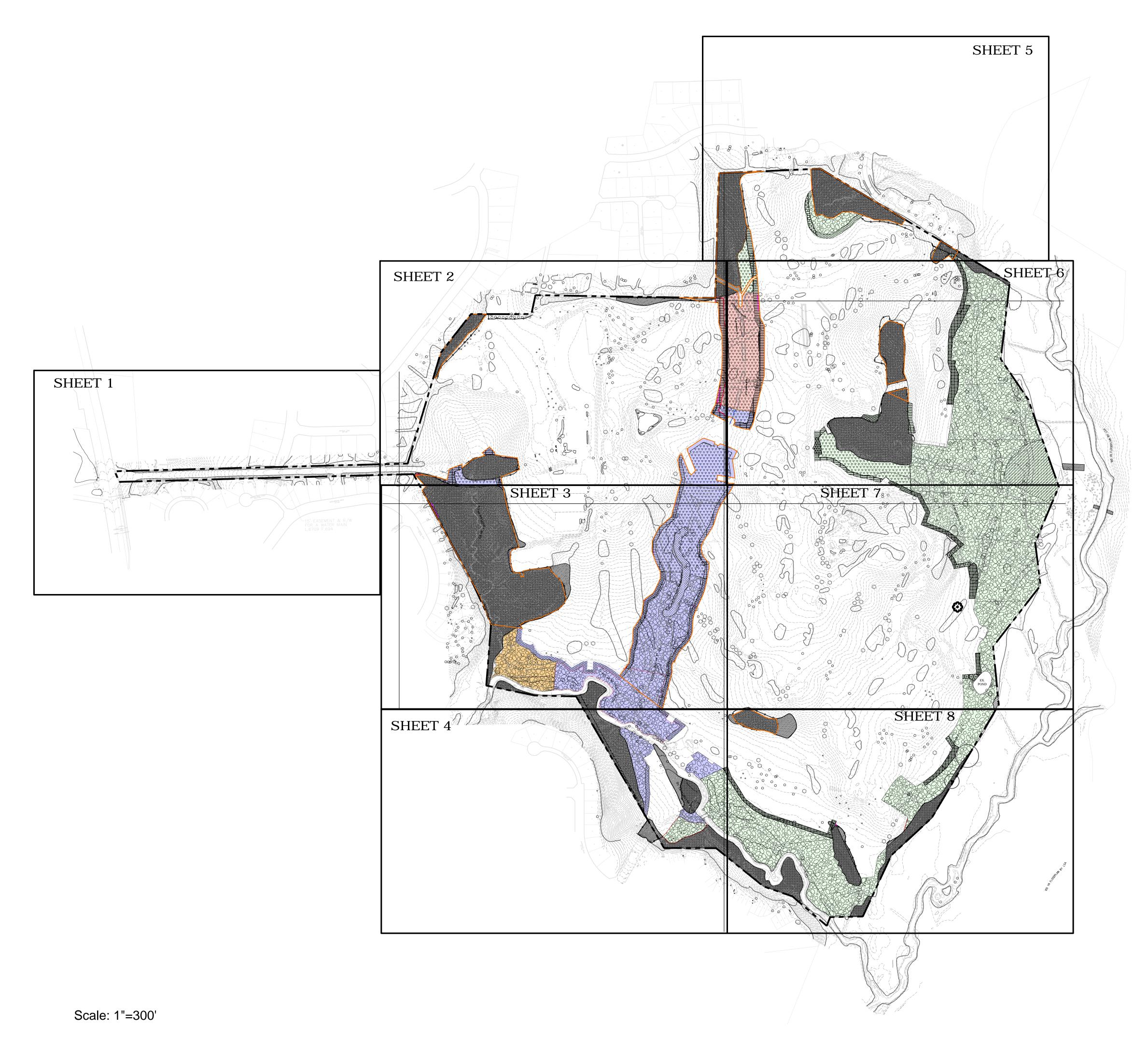
### AMENDMENT #3 NARRATIVE:

THE POPLAR RUN FINAL FOREST CONSERVATION PLAN (FFCP) AMENDMENT #3 INCLUDES REVISIONS FOR FOREST CONSERVATION EASEMENT LINES DUE TO CHANGES TO THE PROPOSED SEWER IN PHASE 3 AND PARK DEDICATION LINE. REVISIONS INCLUDE ADJUSTMENTS TO THE PROPOSED INFRASTRUCTURE RECOMMENDED BY THE MONTGOMERY COUNTY DEPARTMENT OF PERMITTING SERVICES (DPS) AND THE WASHINGTON SUBURBAN SANITARY COMMISSION (WSSC). SINCE THE SEWER IS PARTICULARLY DEEP THE EASEMENT NEEDS TO BE EXPANDED TO A 35-FOOT-WIDE EASEMENT, WHICH WAS NOT PREVIOUSLY SHOWN ON THE FFCP. THE INCREASE IN SEWER EASEMENTS REQUIRED THE ADJACENT STORM DRAIN AND STORM DRAIN EASEMENT TO MOVE FURTHER NORTH AFFECTING FOREST CONSERVATION AREAS. THESE PROPOSED CHANGES WERE MADE UNDER M CONTRACT BETWEEN SEWER MANHOLE'S 1, 2, 3, 17, AND 18 AND THE STORM DRAIN EASEMENT FOR MH 411A-409-407. OTHER CHANGES THAT WERE MADE WERE FOR CHANGES TO PARK DEDICATION BOUNDARY WHICH AFFECTED FOREST CONSERVATION CALCULATIONS.

WHILE THERE ARE MORE REVISIONS TO OTHER ASPECTS OF THE FINALE ENGINEERING PLANS THAT WILL REQUIRE AMENDMENT OF THE SITE PLAN, THOSE CHANGES DO NOT AFFECT THE FOREST CONSERVATION PLAN.

ESA IS REQUESTING APPROVAL OF THE FFCP DUE TO THESE NECESSARY CHANGES DICTATED BY DPS AND WSSC.

### **Attachment 2**



# AND SOUTH AND THE SOUTH AND TH

### **VICINITY MAP**

Scale: 1"=500'

### IOTES:

1. Winchester Homes has entered into an agreement with the Maryland Department of the Environment for a voluntary cleanup of the soils associated with the existing golf course use (tees and greens) at this property. The temporary limits of disturbance and sediment control protection for this activity is not represented on this FFCP, but is represented on the Sediment Control Plans prepared by LSA entitled "Poplar Run-Voluntary Soils Removal Program", approved 8.7.09. A copy of this supplement plan will be forwarded to MNCPPC for inclusion in the FFCP file for this property.

- 2. All on-site forest retention areas and forest plant areas are to be placed in conservation easements or within park dedication.
- 3. MNCPPC Environmental Planning and Parks staff have reviewed the preliminary design of the road crossing at the site plan stage and accepted the span bridge concept. Due to the timing allowed by preliminary plan condition 2d ("road shall be open to traffic prior to the issuance of the 580th building permit"), the final engineering plans for the road crossing are not completed with the Final FCP. The applicant must submit the final construction plans, including the detailed design of the stream bank and trails under the road crossing, to MNCPPC Environmental Planning staff for review and approval as an addendum to the FFCP prior to obtaining MCDPS approval and permit for the road crossing." These plans will be submitted in the future.
- 4. Stream restoration plans have been presented to MNCPPC (Environmental Planning and Parks), MDE, and MCDPS for preliminary review. Agency staffs support the restoration design concept. MDE will review the final design plans, and MCDPS will review the sediment and erosion control plans. These are currently being engineered, and were reviewed recently by MCDPS, but not approved. After approval of the final design plans and sediment and erosion control plans, the applicant will submit the MDE- and MCDPS-approved plans to MNCPPC Environmental as addendums to the FFCP.
- 5. Trees and shrubs must be planted at least 15 feet away from the toe of slope of any stormwater management facility, as required by MD-378 standards.

## NO. DESCRIPTION DATE 1 Original submission 7.10.06 2 Revised FCP based on Env. Planning comments 12.06 3 Revised FCP based on Env. Planning comments 5.07 4 Revised FCP based on Env. Planning comments 8.07 5 Revised FCP based on Env. Planning comments 2.08 6 Revised FCP based on Env. Planning comments 3.08 7 Revised FCP based on Env. Planning comments 4.08 8 Revised FCP based on Env. Planning comments and final engineering 8.08 9 Revised FCP based on Env. Planning comments and final engineering 8.08 10 Revised FCP based on Env. Planning comments 9.08 11 Revised FCP based on Env. Planning comments 10.16.08 12 Revised plant areas based on DPS comment 10.16.08 12 Revised per site plan amendment & SWM design 4.11 13 Revised per Planning staff comments 9.11 14 Revised per Planning staff comments 11.11 15 Revised per Planning staff comments 11.12 16 Revised per Planning staff comments 2.12 17 LOD change at Tivoli Lake Blvd. culvert and in Phase 3 3.13 18 Revised existing forest total 9.13

### AMENDMENT #3 TO FINAL FOREST CONSERVATION PLAN POPLAR RUN

(Formerly Known as Indian Spring)
Montgomery County, Maryland





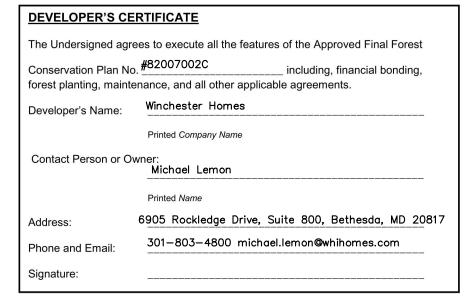
### Applicant:

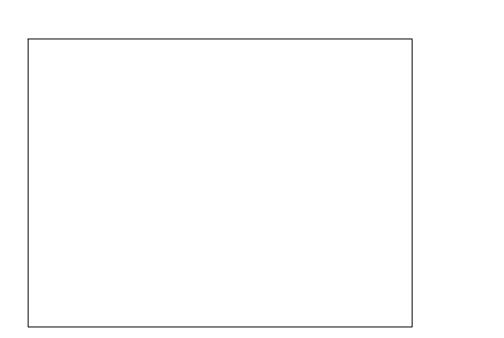
WINCHESTER HOMES

YOUR HOME PYOUR WAY

Winchester Homes
6905 Rockledge Drive
Suite 800
Bethesda, Maryland 20817

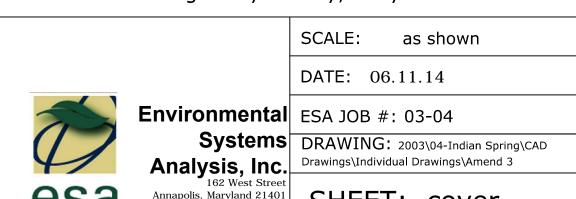
(301) 803-4800

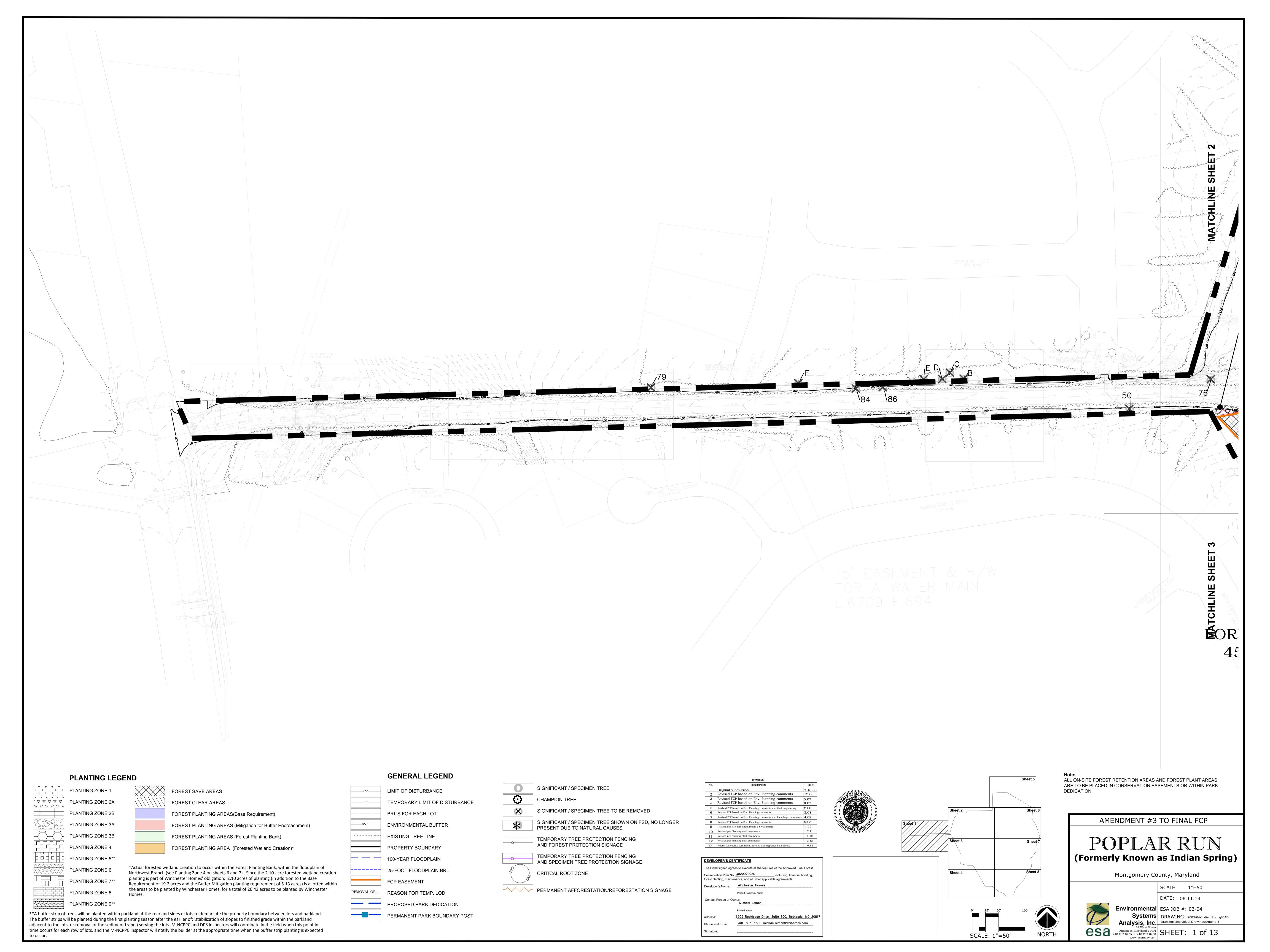


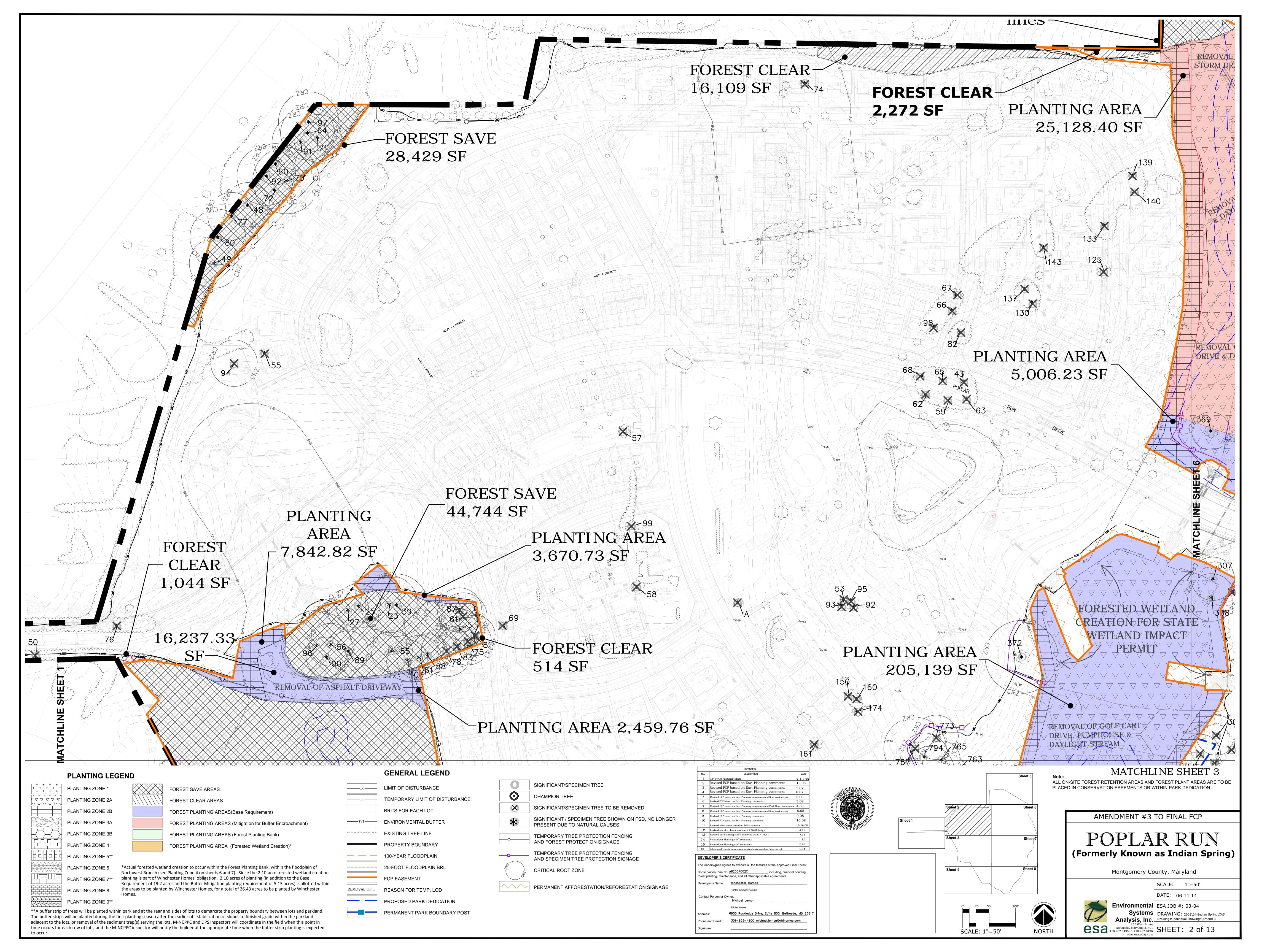


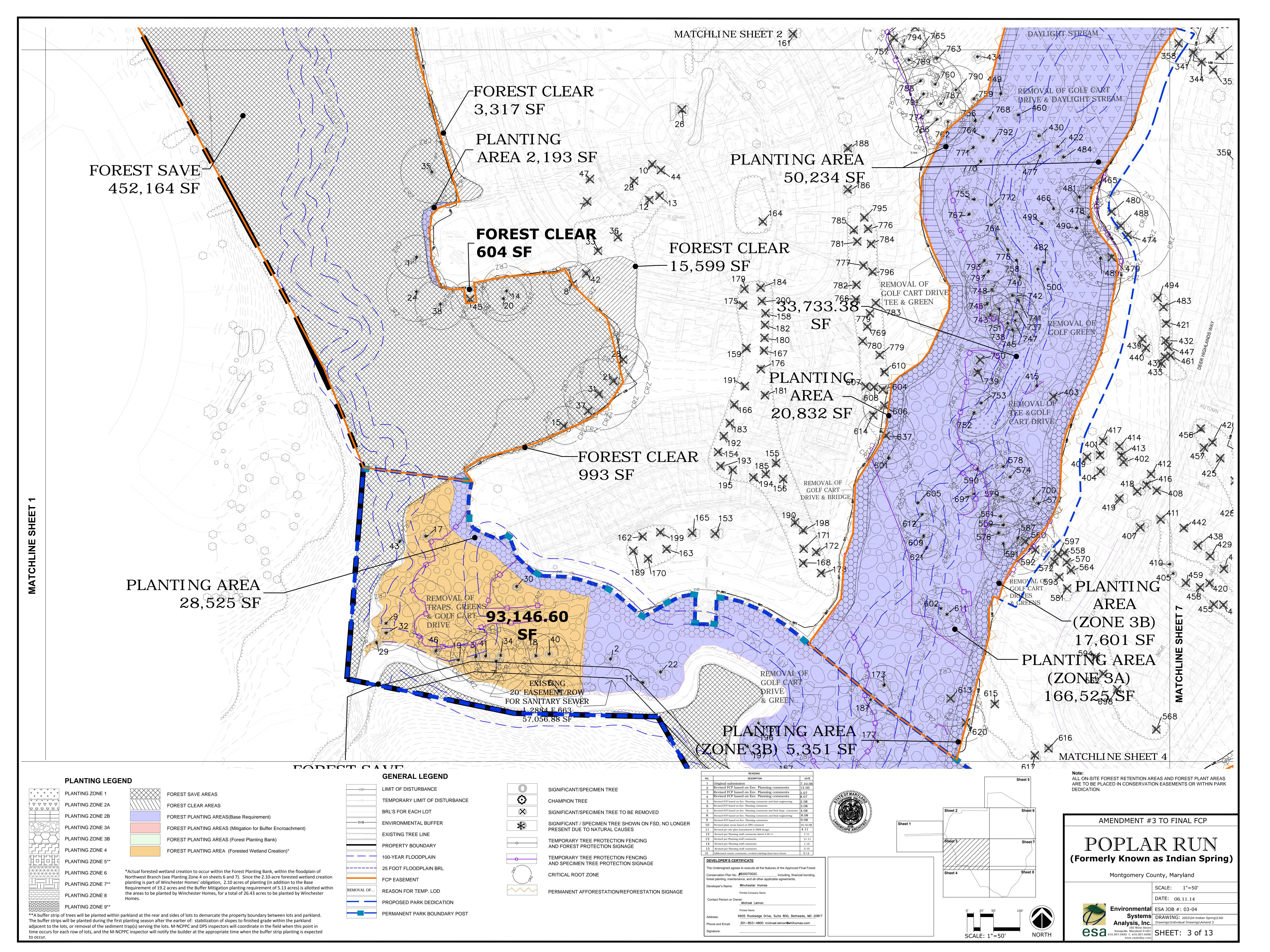


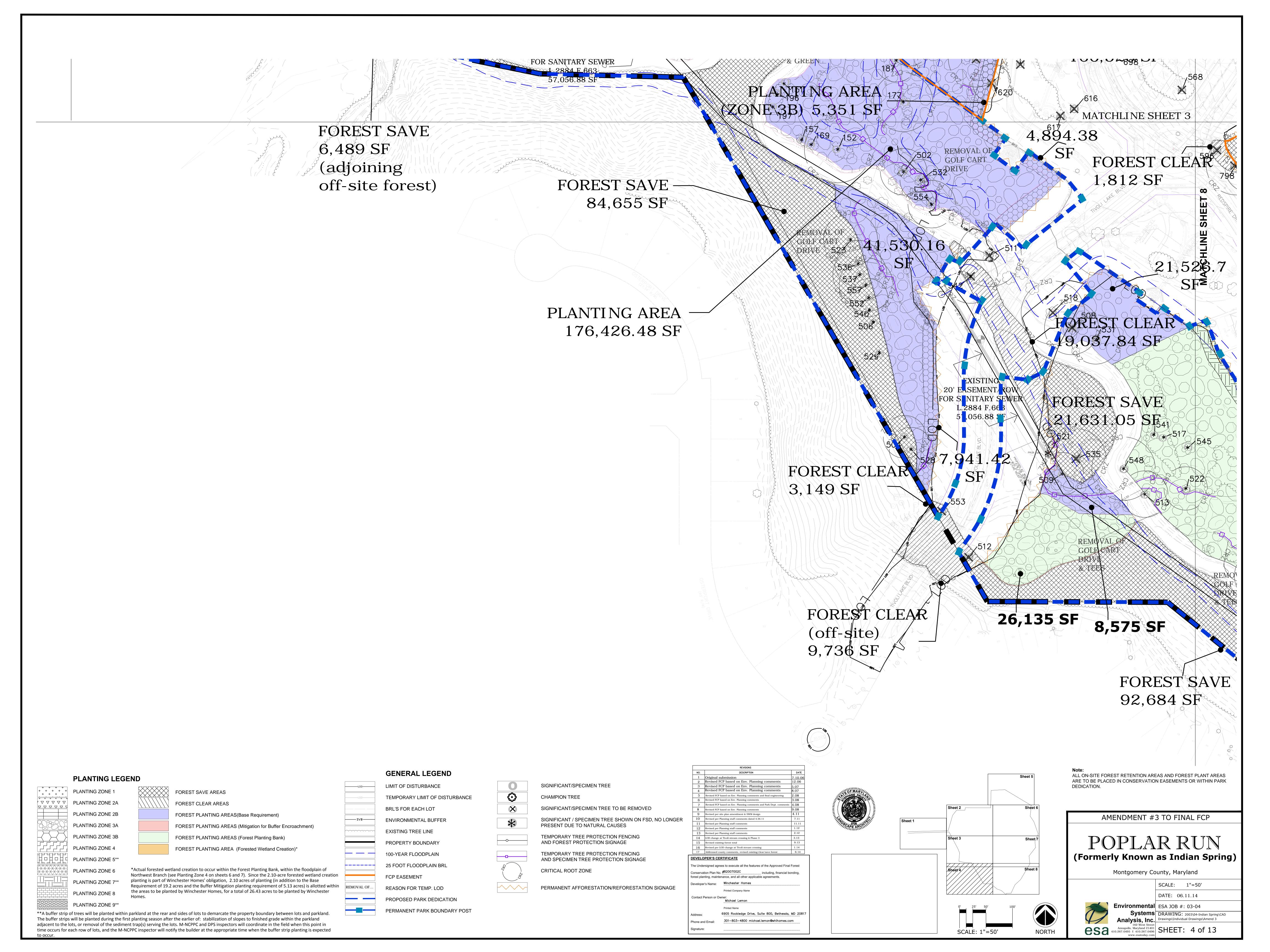
AMENDMENT #3 TO FINAL FCP

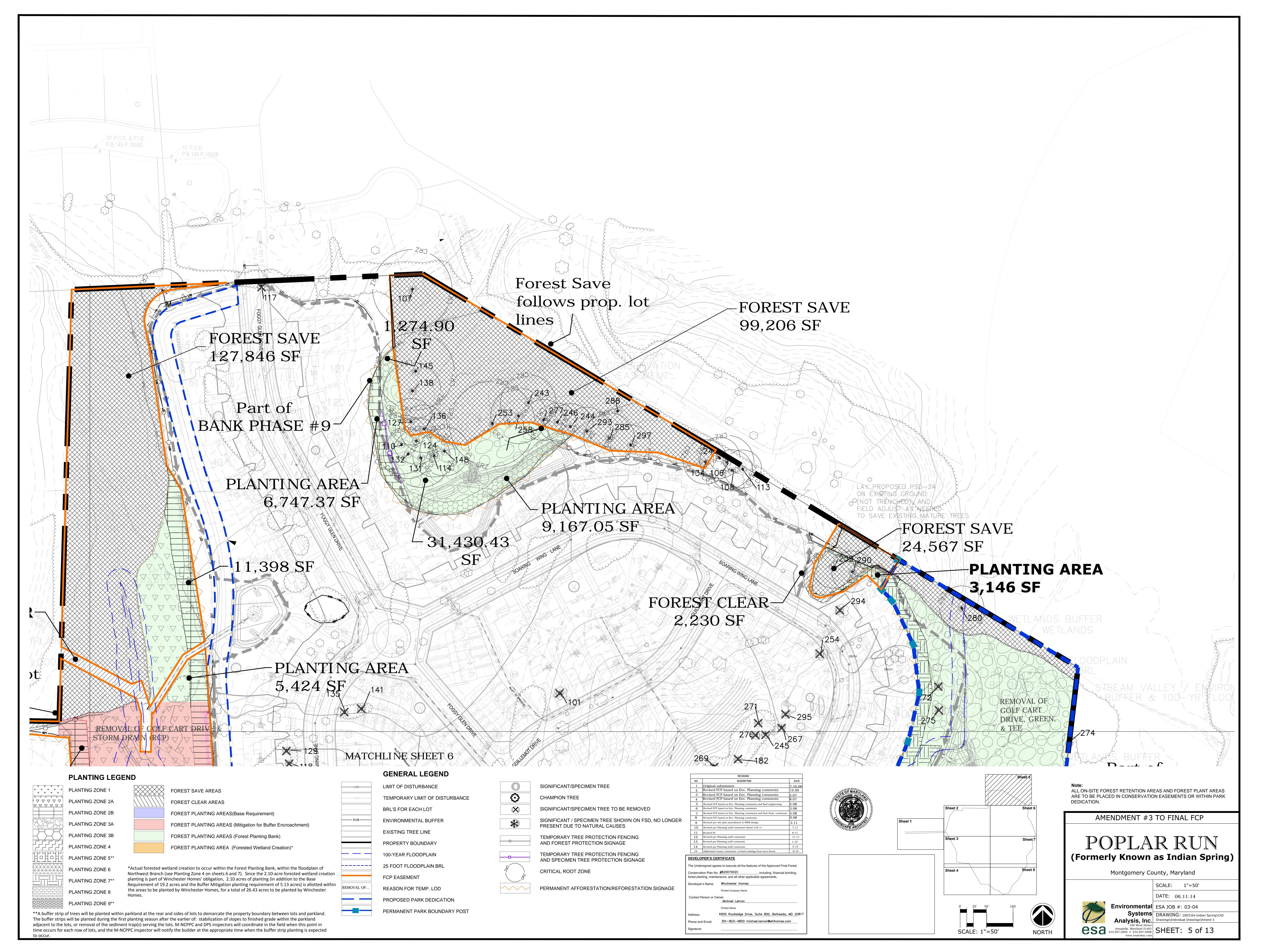


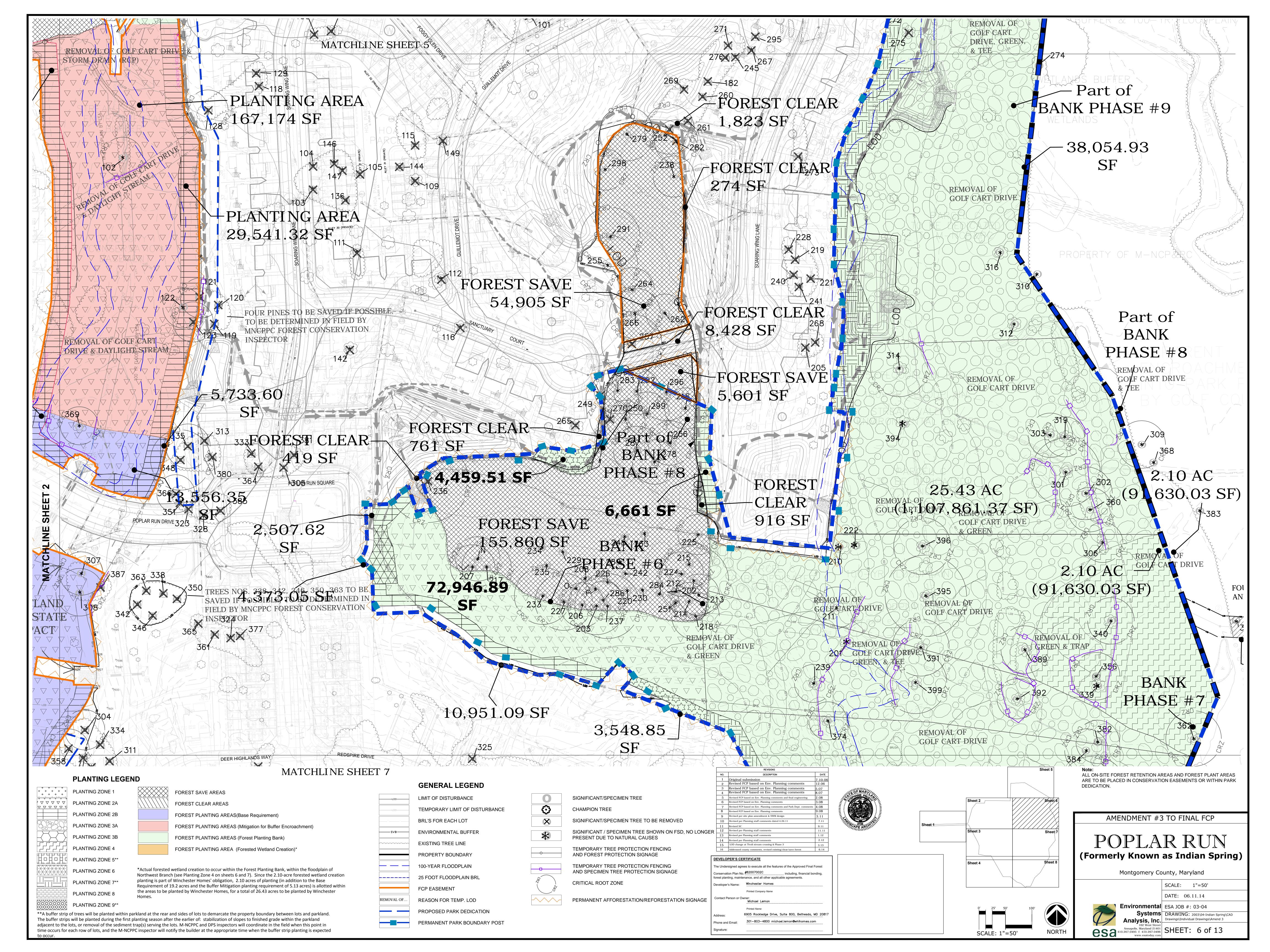


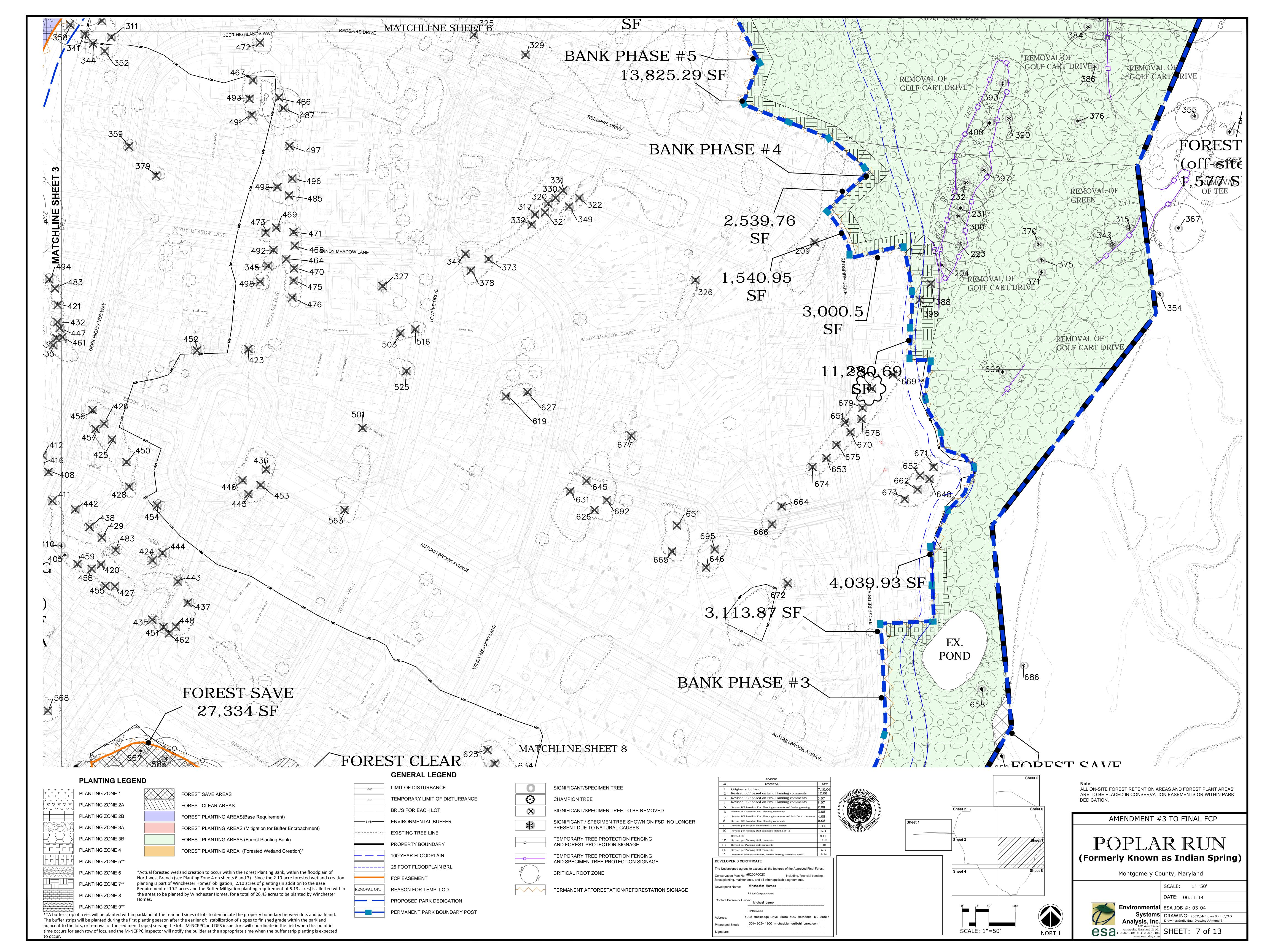


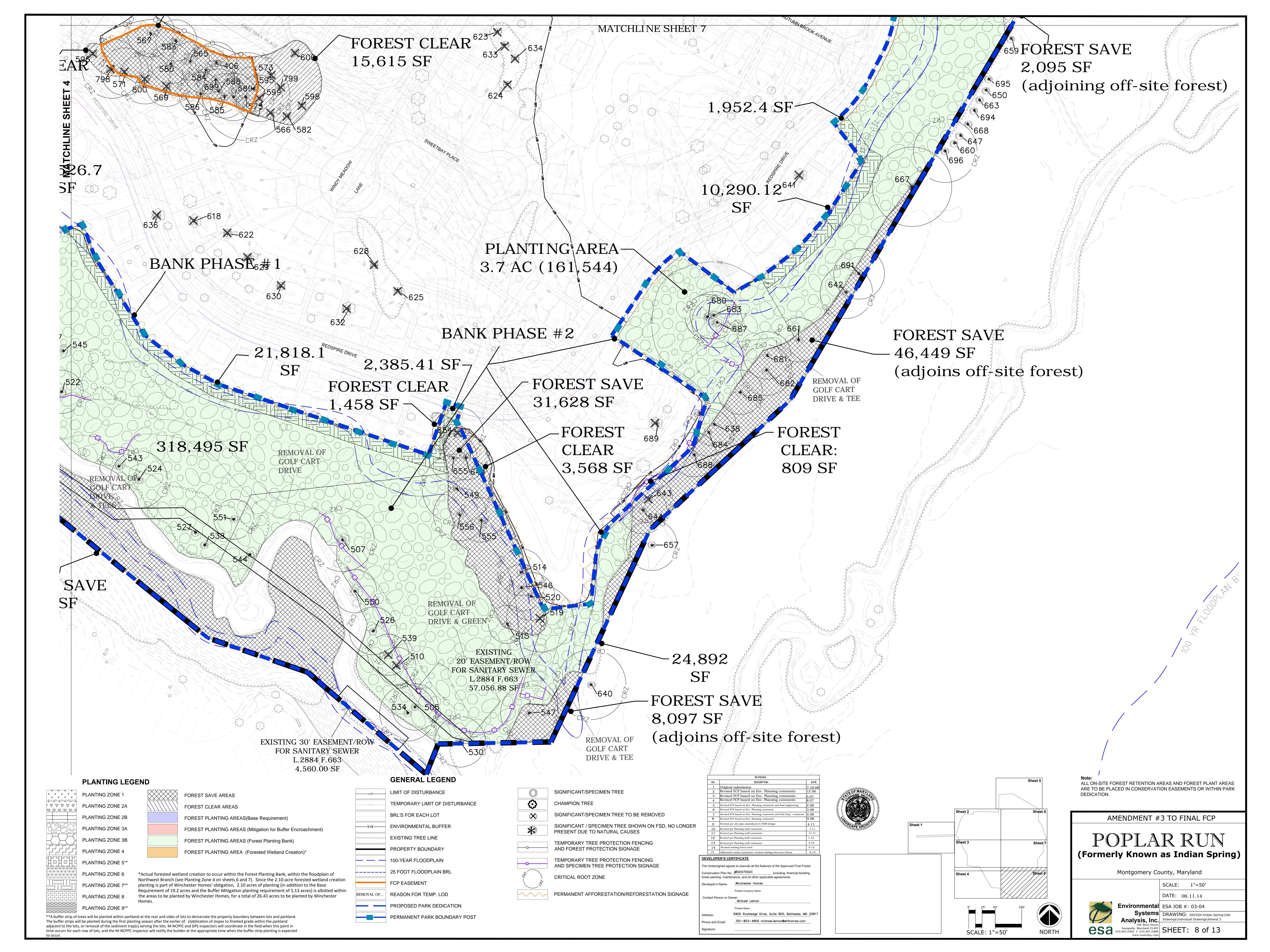


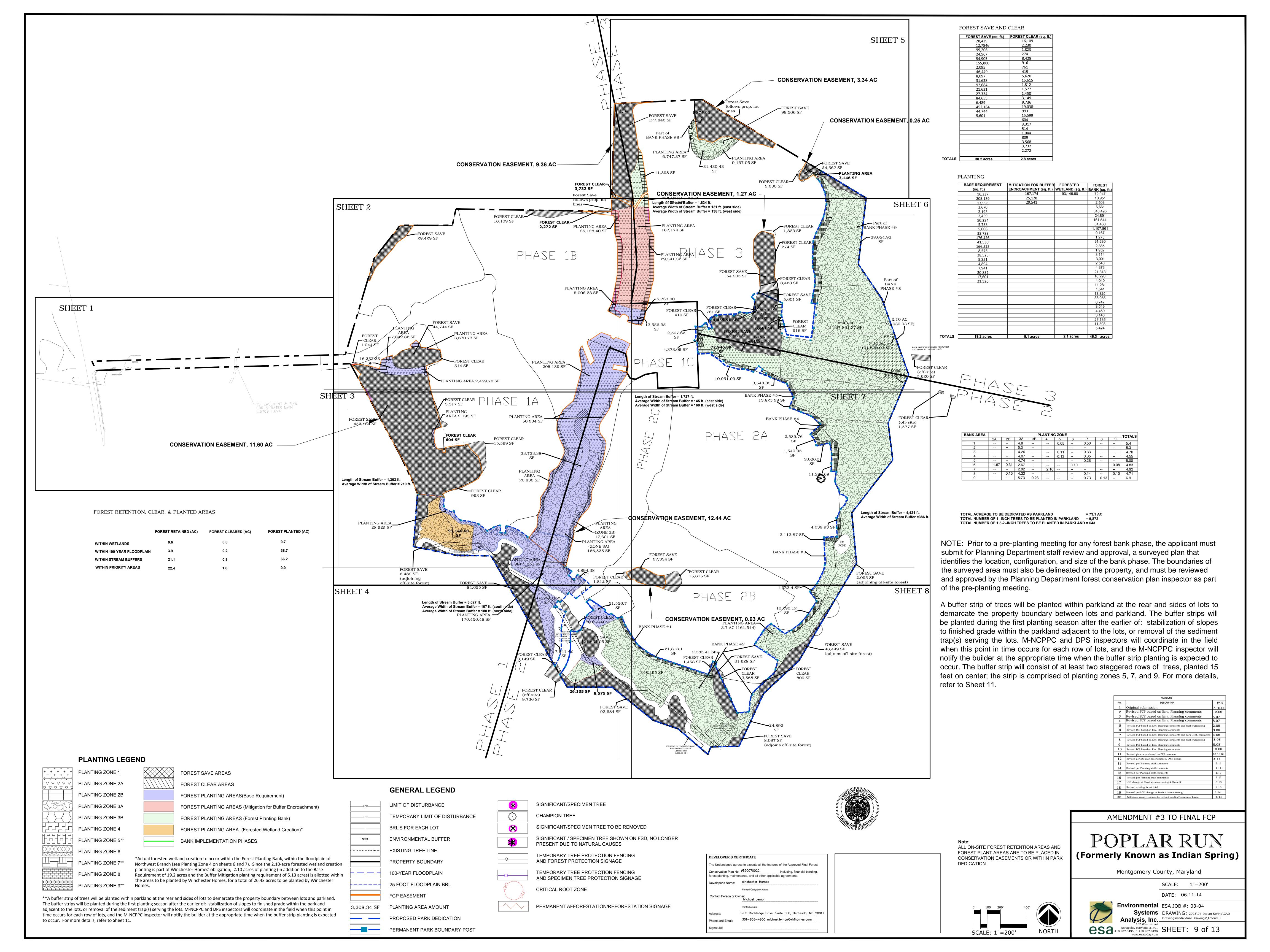












### PLANTING SCHEDULE--Winchester Homes' Obligation (26.4 acres) Base Requirement, Mitigation for Buffer Encroachment, Forested Wetland Creation\*

QTY	SCIENTIFIC NAME	COMMON NAME	SIZE	CONDITION	RATE
44	Liriodendron tulipifera	tulip poplar	1" caliper	container	14' row
44	Acer rubrum	red maple	1" caliper	container	14' row
43	Betula nigra	river birch	1" caliper	container	14' row
43	Amelanchier canadensis	serviceberry	1" caliper	container	14' row

ZONI	${ E~2~A~(225~trees/acr) }$	e) 9.36 Acres			
QTY	SCIENTIFIC NAME	COMMON NAME	SIZE	CONDITION	RATE
347	Liriodendron tulipifera	tulip poplar	1" caliper	container	14' row
346	Quercus alba	white oak	1" caliper	container	14' row
346	Juniperus virginicus	eastern red cedar	1" caliper	container	14' row
346	Quercus coccinea	scarlet oak	1" caliper	container	14' row
346	Quercus rubra	northern red oak	1" caliper	container	14' row
346	Cercis canadensis	eastern redbud	1" caliper	container	14' row

ZONE	ONE 2 B (100 trees/acre) 2.1 Acres				
QTY	SCIENTIFIC NAME	COMMON NAME	SIZE	CONDITION	RATE
35	Liriodendron tulipifera	tulip poplar	1.5-2" caliper	container	20' row
35	Quercus alba	white oak	1.5-2" caliper	container	20' row
35	Juniperus vigincus	eastern red cedar	1.5-2" caliper	container	20' row
35	Quercus coccinea	scarlet oak	1.5-2" caliper	container	20' row
35	Quercus rubra	northern red oak	1.5-2" caliper	container	20' row
35	Cercis canadensis	eastern redbud	1.5-2" caliper	container	20' row

ZONE	${ m E~3~A}$ (225 trees/acr	e) 10.12 Acres		
QTY	SCIENTIFIC NAME	COMMON NAME	SIZE	CONDITION
268	Platanus occidentalis	American sycamore	1" caliper	container
267	Acor rubrum	rod manla	1" coliner	container

QTY	SCIENTIFIC NAME	COMMON NAME	SIZE	CONDITION	RATE
268	Platanus occidentalis	American sycamore	1" caliper	container	14' row
267	Acer rubrum	red maple	1" caliper	container	14' row
267	Liriodendron tulipifera	tulip poplar	1" caliper	container	14' row
267	Pruns serotina	black cherry	1" caliper	container	14' row
267	Salix nigra	black willow	1" caliper	container	14' row
267	Carpinus caroliniana	ironwood	1" caliper	container	14' row
267	llex opaca	American holly	1" caliper	container	14' row
267	Quercus alba	white oak	1" caliper	container	14' row
267	Amelanchier canadensis	serviceberry	1" caliper	container	14' row
267	Betula nigra	river birch	1" caliper	container	14' row

### ZONE 3 B (100 trees/acre) 2.4 Acres

QTY	SCIENTIFIC NAME	COMMON NAME	SIZE	CONDITION	RATE
24	Platanus occidentalis	American sycamore	1.5-2" caliper	container	20' row
24	Acer rubrum	red maple	1.5-2" caliper	container	20' row
24	Liriodendron tulipifera	tulip poplar	1.5-2" caliper	container	20' row
24	Pruns serotina	black cherry	1.5-2" caliper	container	20' row
24	Salix nigra	black willow	1.5-2" caliper	container	20' row
24	Carpinus caroliniana	ironwood	1.5-2" caliper	container	20' row
24	llex opaca	American holly	1.5-2" caliper	container	20' row
24	Quercus alba	white oak	1.5-2" caliper	container	20' row
24	Amelanchier canadensis	serviceberry	1.5-2" caliper	container	20' row
24	Betula nigra	river birch	1.5-2" caliper	container	20' row

### Master Plant Schedule--Winchester Homes' Obligation

QTY	SCIENTIFIC NAME	COMMON NAME	SIZE	CONDITION
268	Platanus occidentalis	American sycamore	1" caliper	container
312	Acer rubrum	red maple	1" caliper	container
659	Liriodendron tulipifera	tulip poplar	1" caliper	container
267	Pruns serotina	black cherry	1" caliper	container
267	Salix nigra	black willow	1" caliper	container
267	Carpinus caroliniana	ironwood	1" caliper	container
267	llex opaca	American holly	1" caliper	container
613	Quercus alba	white oak	1" caliper	container
310	Amelanchier canadensis	serviceberry	1" caliper	container
310	Betula nigra	river birch	1" caliper	container
346	Juniperus virginicus	eastern red cedar	1" caliper	container
346	Quercus coccinea	scarlet oak	1" caliper	container
346	Quercus rubra	northern red oak	1" caliper	container
346	Cercis canadensis	eastern redbud	1" caliper	container
20	Platanus occidentalis	American sycamore	1.5-2" caliper	container
20	Acer rubrum	red maple	1.5-2" caliper	container
66	Liriodendron tulipifera	tulip poplar	1.5-2" caliper	container
20	Pruns serotina	black cherry	1.5-2" caliper	container
19	Salix nigra	black willow	1.5-2" caliper	container
19	Carpinus caroliniana	ironwood	1.5-2" caliper	container
19	llex opaca	American holly	1.5-2" caliper	container
65	Quercus alba	white oak	1.5-2" caliper	container
19	Amelanchier canadensis	serviceberry	1.5-2" caliper	container
19	Betula nigra	river birch	1.5-2" caliper	container
46	Juniperus virginicus	eastern red cedar	1.5-2" caliper	container
46	Quercus coccinea	scarlet oak	1.5-2" caliper	container
45	Quercus rubra	northern red oak	1.5-2" caliper	container
45	Cercis canadensis	eastern redbud	1.5-2" caliper	container

### PLANTING SCHEDULE--Forest Planting Bank (46.3 acres)

### Bank Phase 1 (5.4 acres)

ZONE 5 (194 trees/acre) 0.05 Acre

QTY	SCIENTIFIC NAME	COMMON NAME	SIZE	CONDITION	RATE
108	Platanus occidentalis	American sycamore	1" caliper	container	14' row
108	Acer rubrum	red maple	1" caliper	container	14' row
108	Liriodendron tulipifera	tulip poplar	1" caliper	container	14' row
108	Pruns serotina	black cherry	1" caliper	container	14' row
108	Salix nigra	black willow	1" caliper	container	14' row
108	Carpinus caroliniana	ironwood	1" caliper	container	14' row
108	llex opaca	American holly	1" caliper	container	14' row
108	Quercus alba	white oak	1" caliper	container	14' row
108	Amelanchier canadensis	serviceberry	1" caliper	container	14' row
108	Betula nigra	river birch	1" caliper	container	14' row

QTY	SCIENTIFIC NAME	COMMON NAME	SIZE	CONDITION	RATE
2	Pruns serotina	black cherry	1.5-2" caliper	container	15' row
1	Cornus florida	flowering dogwood	1.5-2" caliper	container	15' row
1	Carpinus caroliniana	ironwood	1.5-2" caliper	container	15' row
5	llex opaca	American holly	1.5-2" caliper	container	15' row
1	Betula nigra	river birch	1.5-2" caliper	container	15' row
ZONI	E 7 (194 trees/acre)  SCIENTIFIC NAME	0.50 Acre	SIZE	CONDITION	RATE
6	Platanus occidentalis	American sycamore	1.5-2" caliper	container	15' row
6	Acer rubrum	red maple	1.5-2" caliper	container	15' row
5	Liriodendron tulipifera	tulip poplar	1.5-2" caliper	container	15' row
5	Pruns serotina	black cherry	1.5-2" caliper	container	15' row
5	Salix nigra	black willow	1.5-2" caliper	container	15' row
5	Carpinus caroliniana	ironwood	1.5-2" caliper	container	15' row
25	llex opaca	American holly	1.5-2" caliper	container	15' row
5	Quercus alba	white oak	1.5-2" caliper	container	15' row
5	Amelanchier canadensis	serviceberry	1.5-2" caliper	container	15' row
5	Betula nigra	river birch	1.5-2" caliper	container	15' row
J	Detala Higia		1 1 -		

### Bank Phase 2 (5.3 acres)

QTY	SCIENTIFIC NAME	COMMON NAME	SIZE	CONDITION	RATE
120	Platanus occidentalis	American sycamore	1" caliper	container	14' row
120	Acer rubrum	red maple	1" caliper	container	14' row
119	Liriodendron tulipifera	tulip poplar	1" caliper	container	14' row
119	Pruns serotina	black cherry	1" caliper	container	14' row
119	Salix nigra	black willow	1" caliper	container	14' row
119	Carpinus caroliniana	ironwood	1" caliper	container	14' row
119	llex opaca	American holly	1" caliper	container	14' row
119	Quercus alba	white oak	1" caliper	container	14' row
119	Amelanchier canadensis	serviceberry	1" caliper	container	14' row
119	Betula nigra	river birch	1" caliper	container	14' row

### Bank Phase 3 (4.70 acres)

QTY	SCIENTIFIC NAME	COMMON NAME	SIZE	CONDITION	RATE
96	Platanus occidentalis	American sycamore	1" caliper	container	14' row
96	Acer rubrum	red maple	1" caliper	container	14' row
96	Liriodendron tulipifera	tulip poplar	1" caliper	container	14' row
96	Pruns serotina	black cherry	1" caliper	container	14' row
96	Salix nigra	black willow	1" caliper	container	14' row
96	Carpinus caroliniana	ironwood	1" caliper	container	14' row
96	llex opaca	American holly	1" caliper	container	14' row
96	Quercus alba	white oak	1" caliper	container	14' row
96	Amelanchier canadensis	serviceberry	1" caliper	container	14' row
95	Betula nigra	river birch	1" caliper	container	14' row

QTY	SCIENTIFIC NAME	COMMON NAME	SIZE	CONDITION	RATE
3	Pruns serotina	black cherry	1.5-2" caliper	container	15' rov
3	Cornus florida	flowering dogwood	1.5-2" caliper	container	15' rov
3	Carpinus caroliniana	ironwood	1.5-2" caliper	container	15' rov
10	llex opaca	American holly	1.5-2" caliper	container	15' rov
3	Betula nigra	river birch	1.5-2" caliper	container	15' rov

QTY	SCIENTIFIC NAME	COMMON NAME	SIZE	CONDITION	RATE
3	Platanus occidentalis	American sycamore	1.5-2" caliper	container	15' row
3	Acer rubrum	red maple	1.5-2" caliper	container	15' row
4	Liriodendron tulipifera	tulip poplar	1.5-2" caliper	container	15' row
4	Pruns serotina	black cherry	1.5-2" caliper	container	15' row
4	Salix nigra	black willow	1.5-2" caliper	container	15' row
4	Carpinus caroliniana	ironwood	1.5-2" caliper	container	15' row
15	llex opaca	American holly	1.5-2" caliper	container	15' row
4	Quercus alba	white oak	1.5-2" caliper	container	15' row
4	Amelanchier canadensis	serviceberry	1.5-2" caliper	container	15' row
4	Betula nigra	river birch	1.5-2" caliper	container	15' row
15	Juniperus virginicus	eastern red cedar	1.5-2" caliper	container	15' row

### Bank Phase 4 (4.55 acres)

### ZONE 3 A (225 trees/acre) 4.07 Acres

QTY	SCIENTIFIC NAME	COMMON NAME	SIZE	CONDITION	RATE
92	Platanus occidentalis	American sycamore	1" caliper	container	14' row
92	Acer rubrum	red maple	1" caliper	container	14' row
92	Liriodendron tulipifera	tulip poplar	1" caliper	container	14' row
92	Pruns serotina	black cherry	1" caliper	container	14' row
92	Salix nigra	black willow	1" caliper	container	14' row
92	Carpinus caroliniana	ironwood	1" caliper	container	14' row
91	llex opaca	American holly	1" caliper	container	14' row
91	Quercus alba	white oak	1" caliper	container	14' row
91	Amelanchier canadensis	serviceberry	1" caliper	container	14' row
91	Betula nigra	river birch	1" caliper	container	14' row
	E 5 (194 trees/acre)	0.13 Acre	1 -		Г <u></u>
QTY	E 5 (194 trees/acre)  SCIENTIFIC NAME	0.13 Acre COMMON NAME	SIZE	CONDITION	RATE
QTY 3	· · · · · · · · · · · · · · · · · · ·		1.5-2" caliper	CONDITION container	15' row
<b>QTY</b> 3 4	SCIENTIFIC NAME	COMMON NAME	1.5-2" caliper 1.5-2" caliper		15' row 15' row
<b>QTY</b> 3 4 3	SCIENTIFIC NAME Pruns serotina	COMMON NAME black cherry	1.5-2" caliper 1.5-2" caliper 1.5-2" caliper	container	15' row 15' row 15' row
<b>QTY</b> 3 4	SCIENTIFIC NAME Pruns serotina Cornus florida	COMMON NAME black cherry flowering dogwood	1.5-2" caliper 1.5-2" caliper 1.5-2" caliper 1.5-2" caliper	container container	15' row 15' row 15' row 15' row
<b>QTY</b> 3 4 3	SCIENTIFIC NAME Pruns serotina Cornus florida Carpinus caroliniana	COMMON NAME black cherry flowering dogwood ironwood	1.5-2" caliper 1.5-2" caliper 1.5-2" caliper	container container container	15' row 15' row 15' row
QTY 3 4 3 12 4 ZONI	SCIENTIFIC NAME  Pruns serotina  Cornus florida  Carpinus caroliniana  Ilex opaca  Betula nigra  E 7 (194 trees/acre)	COMMON NAME black cherry flowering dogwood ironwood American holly	1.5-2" caliper 1.5-2" caliper 1.5-2" caliper 1.5-2" caliper	container container container container container	15' row 15' row 15' row 15' row 15' row
QTY 3 4 3 12 4 ZONE	SCIENTIFIC NAME  Pruns serotina Cornus florida Carpinus caroliniana Ilex opaca Betula nigra  E 7 (194 trees/acre) SCIENTIFIC NAME	black cherry flowering dogwood ironwood American holly river birch	1.5-2" caliper 1.5-2" caliper 1.5-2" caliper 1.5-2" caliper 1.5-2" caliper	container container container container	15' row 15' row 15' row 15' row 15' row
QTY 3 4 3 12 4  ZONI QTY 4	SCIENTIFIC NAME  Pruns serotina Cornus florida Carpinus caroliniana Ilex opaca Betula nigra  E 7 (194 trees/acre) SCIENTIFIC NAME Platanus occidentalis	common NAME black cherry flowering dogwood ironwood American holly river birch  0.35 Acre  common NAME American sycamore	1.5-2" caliper 1.5-2" caliper 1.5-2" caliper 1.5-2" caliper 1.5-2" caliper  1.5-2" caliper	container container container container container  container  container	15' row 15' row 15' row 15' row 15' row
QTY 3 4 3 12 4  ZONI QTY 4 4	SCIENTIFIC NAME  Pruns serotina  Cornus florida  Carpinus caroliniana  Ilex opaca  Betula nigra  E 7 (194 trees/acre)  SCIENTIFIC NAME  Platanus occidentalis  Acer rubrum	common NAME black cherry flowering dogwood ironwood American holly river birch  0.35 Acre  common NAME American sycamore red maple	1.5-2" caliper	container container container container container container	15' row 15' row 15' row 15' row 15' row
QTY 3 4 3 12 4  ZONI QTY 4	SCIENTIFIC NAME  Pruns serotina Cornus florida Carpinus caroliniana Ilex opaca Betula nigra  E 7 (194 trees/acre) SCIENTIFIC NAME Platanus occidentalis	common NAME black cherry flowering dogwood ironwood American holly river birch  0.35 Acre  common NAME American sycamore	1.5-2" caliper 1.5-2" caliper 1.5-2" caliper 1.5-2" caliper 1.5-2" caliper  1.5-2" caliper	container container container container container  container  container	15' row 15' row 15' row 15' row 15' row

### 16 Ilex opaca American holly 4 Quercus alba white oak 4 Amelanchier canadensis serviceberry 4 Betula nigra river birch 16 Juniperus virginicus eastern red cedar Bank Phase 5 (5.0 acres)

4 Salix nigra

llex opaca

3 Quercus alba white oak
3 Amelanchier canadensis serviceberry
3 Betula nigra river birch
13 Juniperus virginicus eastern red cedar

### ZONE 3 A (225 trees/acre) 4.74 Acres QTY SCIENTIFIC NAME COMMON NAME

Carpinus caroliniana ironwood

106	Platanus occidentalis	American sycamore	1" caliper	container	14' row
106	Acer rubrum	red maple	1" caliper	container	14' row
106	Liriodendron tulipifera	tulip poplar	1" caliper	container	14' row
106	Pruns serotina	black cherry	1" caliper	container	14' row
107	Salix nigra	black willow	1" caliper	container	14' row
107	Carpinus caroliniana	ironwood	1" caliper	container	14' row
107	llex opaca	American holly	1" caliper	container	14' row
107	Quercus alba	white oak	1" caliper	container	14' row
	Amelanchier canadensis	serviceberry	1" caliper	container	14' row
107	/ Intelationic danaaction				
107	Betula nigra	river birch	1" caliper	container	14' row
107 ZONI	Betula nigra E 7 (194 trees/acre)	0.26 Acre			
107	Betula nigra	0.26 Acre COMMON NAME	SIZE	CONDITION container	14' row  RATE 15' row
107 ZONI QTY	Betula nigra E 7 (194 trees/acre) SCIENTIFIC NAME	0.26 Acre	SIZE 1.5-2" caliper	CONDITION	RATE
ZONI QTY 2	E 7 (194 trees/acre)  SCIENTIFIC NAME  Platanus occidentalis	0.26 Acre  COMMON NAME  American sycamore red maple	SIZE 1.5-2" caliper 1.5-2" caliper	CONDITION container	RATE 15' row
20NI QTY 2 2	E 7 (194 trees/acre)  SCIENTIFIC NAME  Platanus occidentalis  Acer rubrum	0.26 Acre  COMMON NAME  American sycamore	SIZE 1.5-2" caliper	CONDITION container container	<b>RATE</b> 15' row 15' row
20NI QTY 2 2 3	Betula nigra  E 7 (194 trees/acre)  SCIENTIFIC NAME  Platanus occidentalis  Acer rubrum  Liriodendron tulipifera	O.26 Acre  COMMON NAME  American sycamore red maple tulip poplar	SIZE 1.5-2" caliper 1.5-2" caliper 1.5-2" caliper	CONDITION container container container	RATE 15' row 15' row 15' row
2 2 2 3 3	Betula nigra  E 7 (194 trees/acre)  SCIENTIFIC NAME  Platanus occidentalis  Acer rubrum  Liriodendron tulipifera  Pruns serotina	O.26 Acre  COMMON NAME  American sycamore red maple tulip poplar black cherry	SIZE 1.5-2" caliper 1.5-2" caliper 1.5-2" caliper 1.5-2" caliper	CONDITION container container container container	RATE 15' row 15' row 15' row

American holly

CONDITION RATE

### Bank Phase 6 (4.83 acres)

### ZONE 2 A (225 trees/acre) 1.67 Acres QTY SCIENTIFIC NAME COMMON NAME CONDITION RATE 62 Liriodendron tulipifera tulip poplar 1" caliper 62 Quercus alba white oak 1" caliper 63 Juniperus virginicus eastern red cedar 1" caliper 63 Quercus coccinea scarlet oak 1" caliper 63 Quercus rubra northern red oak 1" caliper container 14' row container 14' row

03	Quercus rubra	I Hortiletti led bak	i calipel	Containe	14 10W						
63	Cercis canadensis	eastern redbud	1" caliper	container	14' row						
ZONE 2 B (100 trees/acre) 0.31 Acre											
QTY	SCIENTIFIC NAME	COMMON NAME	SIZE	CONDITION	RATE						
6	Liriodendron tulipifera	tulip poplar	1.5-2" caliper	container	20' row						
5	Quercus alba	white oak	1.5-2" caliper	container	20' row						
5	Juniperus vigincus	eastern red cedar	1.5-2" caliper	container	20' row						
5	Quercus coccinea	scarlet oak	1.5-2" caliper	container	20' row						
			•								

ſ				_						
	ZONE 3 A (225 trees/acre) 2.67 Acres									
	5	Cercis canadensis	eastern redbud	1.5-2" caliper	container	20' row				
	5	Quercus rubra	northern red oak	1.5-2" caliper	container	20' row				
	5	Quercus coccinea	scarlet oak	1.5-2" caliper	container	20' row				
	5	Juniperus vigincus	eastern red cedar	1.5-2" caliper	container	20' row				
	5	Quercus alba	white oak	1.5-2" caliper	container	20' row				

ZONI	ZONE 3 A (225 trees/acre) 2.67 Acres							
QTY	SCIENTIFIC NAME	COMMON NAME	SIZE	CONDITION	RATE			
61	Platanus occidentalis	American sycamore	1" caliper	container	14' row			
60	Acer rubrum	red maple	1" caliper	container	14' row			
60	Liriodendron tulipifera	tulip poplar	1" caliper	container	14' row			
60	Pruns serotina	black cherry	1" caliper	container	14' row			
60	Salix nigra	black willow	1" caliper	container	14' row			
60	Carpinus caroliniana	ironwood	1" caliper	container	14' row			
60	llex opaca	American holly	1" caliper	container	14' row			
60	Quercus alba	white oak	1" caliper	container	14' row			
60	Amelanchier canadensis	serviceberry	1" caliper	container	14' row			
60	Betula nigra	river birch	1" caliper	container	14' row			

### ZONE 6 (150 trees/acre) 0.10 Acre QTY | SCIENTIFIC NAME | COMMON NAME

iodendron tulipifera	tulip poplar	4.5.011		
, o a o a . o tanpii o i a	i tulip popial	1.5-2" caliper	container	18' row
iercus alba	white oak	1.5-2" caliper	container	18' row
niperus vigincus	eastern red cedar	1.5-2" caliper	container	18' row
iercus coccinea	scarlet oak	1.5-2" caliper	container	18' row
iercus rubra	northern red oak	1.5-2" caliper	container	18' row
ercis canadensis	eastern redbud	1.5-2" caliper	container	18' row
ı	niperus vigincus ercus coccinea ercus rubra	niperus vigincus eastern red cedar ercus coccinea scarlet oak ercus rubra northern red oak	niperus vigincus eastern red cedar 1.5-2" caliper ercus coccinea scarlet oak 1.5-2" caliper ercus rubra northern red oak 1.5-2" caliper	niperus vigincus eastern red cedar 1.5-2" caliper container ercus coccinea scarlet oak 1.5-2" caliper container ercus rubra northern red oak 1.5-2" caliper container

QTY	SCIENTIFIC NAME	COMMON NAME	SIZE	CONDITION	RATE
1	Liriodendron tulipifera	tulip poplar	1.5-2" caliper	container	15' row
1	Quercus alba	white oak	1.5-2" caliper	container	15' row
1	Juniperus vigincus	eastern red cedar	1.5-2" caliper	container	15' row
1	Quercus coccinea	scarlet oak	1.5-2" caliper	container	15' row
1	Quercus rubra	northern red oak	1.5-2" caliper	container	15' row
1	Cercis canadensis	eastern redbud	1.5-2" caliper	container	15' row
10	Juniperus virginicus	eastern red cedar	1.5-2" caliper	container	15' row

### Bank Phase 7 (4.92 acres)

QTY	SCIENTIFIC NAME	COMMON NAME	SIZE	CONDITION	RATE
64	Platanus occidentalis	American sycamore	1" caliper	container	14' rov
64	Acer rubrum	red maple	1" caliper	container	14' row
64	Liriodendron tulipifera	tulip poplar	1" caliper	container	14' row
64	Pruns serotina	black cherry	1" caliper	container	14' row
64	Salix nigra	black willow	1" caliper	container	14' row
63	Carpinus caroliniana	ironwood	1" caliper	container	14' row
63	llex opaca	American holly	1" caliper	container	14' row
63	Quercus alba	white oak	1" caliper	container	14' row
63	Amelanchier canadensis	serviceberry	1" caliper	container	14' row
63	Betula nigra	river birch	1" caliper	container	14' row

ZONI	E 4 (225 trees/acre)	2.10 acres			
QTY	SCIENTIFIC NAME	COMMON NAME	SIZE	CONDITION	RATE
95	Acer rubrum	red maple	1" caliper	container	14' row
95	Betula nigra	river birch	1" caliper	container	14' row
95	Salix nigra	black willow	1" caliper	container	14' row
94	Platanus occidentalis	American sycamore	1" caliper	container	14' row
94	Carpinus caroliniana	ironwood	1" caliper	container	14' row

### Bank Phase 8 (4.71 acres)

QTY	SCIENTIFIC NAME	COMMON NAME	SIZE	CONDITION	RATE
3	Liriodendron tulipifera	tulip poplar	1.5-2" caliper	container	20' row
3	Quercus alba	white oak	1.5-2" caliper	container	20' row
3	Juniperus vigincus	eastern red cedar	1.5-2" caliper	container	20' row
2	Quercus coccinea	scarlet oak	1.5-2" caliper	container	20' row
2	Quercus rubra	northern red oak	1.5-2" caliper	container	20' row
2	Cercis canadensis	eastern redbud	1.5-2" caliper	container	20' row

2	Cercis canadensis	eastern redbud	1.5-2" caliper	container	20' row					
ZONE 3 A (225 trees/acre) 4.32 Acres										
QTY	SCIENTIFIC NAME	COMMON NAME	SIZE	CONDITION	RATE					
97	Platanus occidentalis	American sycamore	1" caliper	container	14' row					
97	Acer rubrum	red maple	1" caliper	container	14' row					
97	Liriodendron tulipifera	tulip poplar	1" caliper	container	14' row					
97	Pruns serotina	black cherry	1" caliper	container	14' row					
98	Salix nigra	black willow	1" caliper	container	14' row					
98	Carpinus caroliniana	ironwood	1" caliper	container	14' row					
98	llex opaca	American holly	1" caliper	container	14' row					
98	Quercus alba	white oak	1" caliper	container	14' row					
98	Amelanchier canadensis	serviceberry	1" caliper	container	14' row					
98	Betula nigra	river birch	1" caliper	container	14' row					

QTY	SCIENTIFIC NAME	COMMON NAME	SIZE	CONDITION	RATE
2	Platanus occidentalis	American sycamore	1.5-2" caliper	container	15' row
2	Acer rubrum	red maple	1.5-2" caliper	container	15' row
2	Liriodendron tulipifera	tulip poplar	1.5-2" caliper	container	15' row
2	Pruns serotina	black cherry	1.5-2" caliper	container	15' row
2	Salix nigra	black willow	1.5-2" caliper	container	15' row
1	Carpinus caroliniana	ironwood	1.5-2" caliper	container	15' row
7	llex opaca	American holly	1.5-2" caliper	container	15' row
1	Quercus alba	white oak	1.5-2" caliper	container	15' row
1	Amelanchier canadensis	serviceberry	1.5-2" caliper	container	15' row
1	Betula nigra	river birch	1.5-2" caliper	container	15' row
7	Juniperus virginicus	eastern red cedar	1.5-2" caliper	container	15' row

QTY	SCIENTIFIC NAME	COMMON NAME	SIZE	CONDITION	RATE
2	Liriodendron tulipifera	tulip poplar	1.5-2" caliper	container	15' row
2	Quercus alba	white oak	1.5-2" caliper	container	15' row
1	Juniperus vigincus	eastern red cedar	1.5-2" caliper	container	15' row
2	Quercus coccinea	scarlet oak	1.5-2" caliper	container	15' row
2	Quercus rubra	northern red oak	1.5-2" caliper	container	15' row
1	Cercis canadensis	eastern redbud	1.5-2" caliper	container	15' row
10	Juniperus virginicus	eastern red cedar	1.5-2" caliper	container	15' row

### Bank Phase 9 (6.9 acres)

QTY	SCIENTIFIC NAME	COMMON NAME	SIZE	CONDITION	RATE
128	Platanus occidentalis	American sycamore	1" caliper	container	14' row
129	Acer rubrum	red maple	1" caliper	container	14' row
129	Liriodendron tulipifera	tulip poplar	1" caliper	container	14' row
129	Pruns serotina	black cherry	1" caliper	container	14' row
129	Salix nigra	black willow	1" caliper	container	14' row
129	Carpinus caroliniana	ironwood	1" caliper	container	14' row
129	llex opaca	American holly	1" caliper	container	14' row
129	Quercus alba	white oak	1" caliper	container	14' row
129	Amelanchier canadensis	serviceberry	1" caliper	container	14' row
129	Betula nigra	river birch	1" caliper	container	14' row

QTY	SCIENTIFIC NAME	COMMON NAME	SIZE	CONDITION	RATE
3	Platanus occidentalis	American sycamore	1.5-2" caliper	container	20' row
3	Acer rubrum	red maple	1.5-2" caliper	container	20' row
3	Liriodendron tulipifera	tulip poplar	1.5-2" caliper	container	20' row
2	Pruns serotina	black cherry	1.5-2" caliper	container	20' row
2	Salix nigra	black willow	1.5-2" caliper	container	20' row
2	Carpinus caroliniana	ironwood	1.5-2" caliper	container	20' row
2	llex opaca	American holly	1.5-2" caliper	container	20' row
2	Quercus alba	white oak	1.5-2" caliper	container	20' row
2	Amelanchier canadensis	serviceberry	1.5-2" caliper	container	20' row
2	Betula nigra	river birch	1.5-2" caliper	container	20' row

### ZONE 7 (194 trees/acre) 0.81 Acre

QTY	SCIENTIFIC NAME	COMMON NAME	SIZE	CONDITION	RATE
11	Platanus occidentalis	American sycamore	1.5-2" caliper	container	15' row
11	Acer rubrum	red maple	1.5-2" caliper	container	15' row
11	Liriodendron tulipifera	tulip poplar	1.5-2" caliper	container	15' row
11	Pruns serotina	black cherry	1.5-2" caliper	container	15' row
11	Salix nigra	black willow	1.5-2" caliper	container	15' row
11	Carpinus caroliniana	ironwood	1.5-2" caliper	container	15' row
29	llex opaca	American holly	1.5-2" caliper	container	15' row
11	Quercus alba	white oak	1.5-2" caliper	container	15' row
11	Amelanchier canadensis	serviceberry	1.5-2" caliper	container	15' row
11	Betula nigra	river birch	1.5-2" caliper	container	15' row
29	Juniperus virginicus	eastern red cedar	1.5-2" caliper	container	15' row

QTY	SCIENTIFIC NAME	COMMON NAME	SIZE	CONDITION	RATE
2	Platanus occidentalis	American sycamore	1.5-2" caliper	container	18' row
2	Acer rubrum	red maple	1.5-2" caliper	container	18' row
2	Liriodendron tulipifera	tulip poplar	1.5-2" caliper	container	18' row
2	Pruns serotina	black cherry	1.5-2" caliper	container	18' row
2	Salix nigra	black willow	1.5-2" caliper	container	18' row
2	Carpinus caroliniana	ironwood	1.5-2" caliper	container	18' row
2	llex opaca	American holly	1.5-2" caliper	container	18' row
2	Quercus alba	white oak	1.5-2" caliper	container	18' row
2	Amelanchier canadensis	serviceberry	1.5-2" caliper	container	18' row
2	Betula nigra	river birch	1.5-2" caliper	container	18' row

The Undersigned agre	ees to execute all the features of the Approved Final Forest
Conservation Plan No	
forest planting, mainte	enance, and all other applicable agreements.
Developer's Name:	Winchester Homes
	Printed Company Name
Contact Person or O	wner:
	Michael Lemon
	Printed Name
Address:	6905 Rockledge Drive, Suite 800, Bethesda, MD 20
Address.	



	REVISIONS	
NO.	DESCRIPTION	DATE
1	Original submission	7.10.06
2	Revised FCP based on Env. Planning comments	12.06
3	Revised FCP based on Env. Planning comments	5.07
4	Revised FCP based on Env. Planning comments	8.07
5	Revised FCP based on Env. Planning comments and final engineering	2.08
6	Revised FCP based on Env. Planning comments	3.08
7	Revised FCP based on Env. Planning comments and Park Dept. comments	4.08
8	Revised FCP based on Env. Planning comments	9.08
9	Revised per site plan amendment & SWM design	3.11
10	Revised per Planning staff comments dated 4.26.11	7.11
11	Revised SC	9.11
12	Revised per Planning staff comments	11.11
13	Revised per Planning staff comments	1.12
14	Revised per Planning staff comments	2.12
15	LOD change at Tivoli stream crossing & Phase 3	3.13
16	Revised existing forest total	9.13
17	Revised per LOD change at Tivoli stream crossing	1.14
18	Addressed county comments, revised existing/clear/save forest	6.14

AMENDMENT #3 TO FINAL FCP

### POPLAR RUN

(Formerly Known as Indian Spring) Montgomery County, Maryland

> SCALE: NTS DATE: 06.11.14



Environmental ESA JOB #: 03-04 Systems DRAWING: 2003\04-Indian Spring\CAD Drawings\Individual Drawings\Amend 3 Annapolis, Maryland 21401
410.267.0495 f: 410.267.0496
www.esatoday.com

162 West Street
SHEET: 10 of 13

\*Actual forested wetland creation to occur within the Forest Planting Bank, within the floodplain of Northwest Branch (see Planting Zone 4 on sheets 6 and 7). Since the 2.10-acre forested wetland creation planting is part of Winchester Homes' obligation, 2.10 acres of planting (in addition to the Base Requirement of 19.2 acres and the Buffer Mitigation planting requirement of 5.13 acres) is allotted within the areas to be planted by Winchester Homes, for a total of 26.43 acres to be planted by Winchester

• All on-site forest retention areas and forest plant areas are to

site representative.

be placed in conservation easements or within park dedication. Provide documentation of the plants delivered to the approved

### STANDARD NOTES

STANDARD NOTES TO BE INCLUDED IN FINAL FOREST

CONSERVATION PLAN: a. An on-site pre-construction meeting shall be required after the limits of disturbance have been staked and flagged, but before any clearing or grading begins. The owner shall contact the Maryland-National Capital Park and Planning Commission inspection staff prior to commencing construction to verify the limits of disturbance and discuss tree protection and tree care measures. The attendants at this meeting should include: developer's representative, construction superintendent, ISA certified arborist or MD licensed tree expert that will implement the tree protection measures, M-NCPPC Planning Department Forest Conservation inspector, M-NCPPC Parks Inspector, M-NCPPC Parks Manager, M-NCPPC Parks Arborist

(301-650-2614), M-NCPPC Parks Horticulturalist (301-650-2611), and DPS sediment control inspector b. No clearing or grading shall begin before stress-reduction measures have been implemented. Appropriate measures may include, but are not limited to:

 Root pruning ii. Crown Reduction or pruning

iii. Watering iv.Fertilizing v. Vertical mulching vi.Root aeration matting

Measures not specified on the forest conservation plan may be required as determined by the M-NCPPC inspector in coordination with the arborist.

c. A State of Maryland licensed tree expert, or an International Society of Arboriculture certified arborist must perform all stress reduction measures. Documentation of stress reduction measures must be either observed by the M-NCPPC inspector or sent to the M-NCPPC inspector at 8787 Georgia Avenue, Silver Spring, MD 20910. The M-NCPPC inspector will determine the exact method to convey the

stress reductions measures during the pre-construction meeting. d. Temporary tree protection devices shall be installed per the Forest Conservation Plan and prior to any construction activities. Tree protection fencing locations should be staked prior to the pre-construction meeting. M-NCPPC inspector, in coordination with the DPS sediment control inspector, may make field adjustments to increase the survivability of trees and forest shown as saved on the approved plan. Temporary tree protection devices may include:

i. Chain link fence (four feet high) ii. Super silt fence with wire strung between the support poles (minimum 4 feet high) with high visibility flagging. iii. 14 gauge 2-inch x 4-inch welded wire fencing supported by steel T-bar posts (minimum 4 feet high) with high visibility flagging. e. Temporary protection devices shall be maintained and installed by the contractor for the duration of construction project and must not be altered without prior approval from M-NCPPC. No equipment, trucks, materials, or debris may be stored within the tree protection fence areas during the entire construction project. No vehicle or equipment access to the fenced area will be permitted. Tree protection shall not be removed without prior approval of M-NCPPC. Tree protection

devices to be coordinated with erosion and sediment control devices as indicated on the approved Erosion and Sediment Control plan approved by the Department of Permitting Services. f. Forest retention area signs shall be installed as required by the M-NCPPC inspector, or as shown approved plan. g. Long-term protection devices will be installed per the Forest Conservation Plan and attached details. Installation will occur at the appropriate time during the construction project. Refer to the plan

drawing for long-term protection measures to be installed. h. Periodic inspections by M-NCPPC will occur during the construction project. Corrections and repairs to all tree protection devices, as determined by the M-NCPPC inspector, must be made within the timeframe established by the M-NCPPC inspector. i. After construction is completed, an inspection shall be requested.

corrective measures which may be required include i. Removal and replacement of dead and dying trees ii. Pruning of dead or declining limbs iii. Soil aeration

iv.Fertilization v. Watering vi.Wound repair

vii. Clean up of retention areas i. After inspection and completion of corrective measures have been

undertaken, all temporary protection devices shall be removed from the site. No additional grading, sodding, or burial may take place.

### **GENERAL NOTES**

1. This planting plan is provided in accordance with the requirements set forth by the Forest and Tree Preservation Ordinance of Montgomery County. The preparation of this plan, the notes and details were prepared using the guidelines of the Montgomery County Adopted Forest Conservation Manual. Afforestation/reforestation planting and related work must be performed by a contractor that is knowledgeable and experienced in afforestation / reforestation techniques and planting practices.

3. The enforcement staff of Montgomery County requires that all trees planted in conformance with the Forest and Tree Preservation Ordinance, must be alive and in good condition at the end of the two-year maintenance period in order for the release of financial security. Base sheets for the preparation of these plans was provided by Loiederman Soltesz Associates, Inc.

6. A pre-planting meeting shall be held to inspect the planting areas prior to implementation of the planting plan. The contractor must contact ESA (410-267-0495) a minimum of 48 hours in advance of this meeting. The following representatives must be invited: Park Manager M-NCPPC Parks Inspector, M-NCPPC Forest Conservation Inspector, M-NCPPC Parks Horticulturalist, and M-NCPPC Parks Arborist. 7. Prior to planting within park dedication areas, the Parks Horticulturalist

5. All work shall be conducted in accordance with these plans. No changes

to these plans may be made without the prior approval of MNCPPC staff.

(301-650-2611) must inspect and approve the delivered plant materials. The contractor must contact the Horticulturalist at least 48 hours in advance of any planting work. 8. The landscape contractor is responsible for the location of all

underground utilities. He/she shall contact MISS UTILITY a minimum of 48 hours in advance of any planting work. Utilities damaged during planting shall be repaired at the contractor's expense. 9. The contractor shall remove any/all refuse from the designated mitigation areas. This refuse shall be hauled off-site.

### **QUALITY ASSURANCE**

1. Names of plant material listed conform generally with names accepted by the nursery trade. The contractor is to provide stock true to botanical name. 2. All plant material shall conform to the current issue of the American Standard for Nursery Stock published by the American Association of Nurserymen and as specified below. Plant material delivered to the site which does not conform to the American Standard for Nursery Stock or the following will be rejected by ESA, Inc. and must be immediately removed from the site by the landscape contractor.

3. Hardwood stock shall meet the following standards: Trees shall have a solid root mass with the soil in place. The roots shall appear clean and white in coloration. If growing, the trees shall appear healthy

with no foliage spots, discoloration, wilting or other evidence of the presence of disease or insects. 4.If specified material is not available, or species changes are requested, all substitutions must be approved by MNCPPC staff (301) 495-4571 prior to scheduling a pre-planting meeting. Only native material as defined by the Montgomery County Trees Technical Manual will be acceptable for

afforestation/reforestation plantings. All plant material shall be obtained from nurseries that have been inspected and certified by state plant inspectors.

### PRODUCT SPECIFICATIONS

2.ORGANIC MATTER:

Sewage Sludge

the total nitrogen in a slow release form. For trees and shrubs fertilizer shall be a complete fertilizer with a minimum analysis of 10% nitrogen, 6% phosphorous, and 4% potassium. For use on specimen or significant trees, the fertilizer shall be high in phosphorous and low in nitrogen to promote root growth. A water-insoluble nitrogen, 2-year release fertilizer with a ratio of 20% nitrogen, 10% phosphorous and 5% potassium shall be used in wetland and riparian backfill mixtures. Fertilizer shall be added depending on the size of the plant and the manufacture's recommended rate.

1.FERTILIZER: All fertilizer shall be granular, packet or pellet with 35 to 80% of

 Peatmoss --Type I spagnum peatmoss, finely divided with pH of 3.1-5.0; or

Sedge Peat --Decomposed peat containing no identifiable Composted --Approved, screened, polymer-dewatered sewage sludge with

3.BACK-FILL MIXTURE: Back-fill mixture for containerized trees shall be 3/4 existing soil mixed with 1/4 organic material, plus granular fertilizer. 4.MULCH: Material shall be well aged, fine shredded hardwood, dark brown in color, or approved equal. Material shall be mulching grade, uniform in size and free of foreign matter.

a pH of 6.2-7.2

### **DEVELOPER'S CERTIFICATE** The Undersigned agrees to execute all the features of the Approved Final Forest Conservation Plan No. #82007002C \_\_ including, financial bonding, forest planting, maintenance, and all other applicable agreements. Developer's Name: Winchester Homes Printed Company Name Contact Person or Owner: Michael Lemon Printed Name 6905 Rockledge Drive, Suite 800, Bethesda, MD 20817 301-803-4800 michael.lemon@whihomes.com Phone and Email:

### PRE-PLANTING SPECIFICATIONS

1. Allow six (6) months in advance to order materials and plants. 2. The preferred planting time for container grown materials (trees, shrubs, and seedlings) is from November through December. Planting shall not take place in sub-freezing temperatures, when the ground is frozen, or when the soil is too dry or wet, or otherwise in a condition not generally accepted as satisfactory for planting and may adversely affect plant materials. 3. All planting areas shall be in a stabilized condition so as to minimize soil erosion. For seeding specifications, see the note section, "Removal of Golf Course Features from the Afforestation Environmental Buffer" 4. The landscape contractor shall notify MNCPPC (301-495-4571) and ESA (410-267-0495) at least 2 weeks prior to the start of construction to arrange a pre-planting meeting. 5. Planting should occur within 24 hours of plant material delivery to the site. Plant materials left unplanted for more than 24 hours shall be protected from direct sun and weather and kept moist. Nursery stock shall not be left

unplanted for more than 2 weeks. 6. When conditions detrimental to plant growth are encountered, such as rubble fill, adverse drainage conditions, or obstructions, notify ESA (410-267-0495) before planting. 7. The landscape contractor is responsible for the location of all existing underground utilities. The repair of utilities damaged during planting shall be at the landscape contractor's expense.

8. The landscape contractor is responsible for coordinating access to the site with the owner. 9. All existing trash and impervious areas shown on the plan to be removed and any disturbed soil must be stabilized and seeded. It may be necessary to scarify and/or aerate the soil.

10. Plants shall be inspected by the contractor and any material that is either damaged or which has root ball compaction, j-rooted, or kinked root systems will be replaced. No plants will be stored on site. Plants will be planted immediately once received from the nursery. 11. Deer protection measures to be provided for all planted areas. Deer protection measures must consist of:

• 4-foot tall, heavy plastic mesh sleeves wrapped around each tree planted,

4-inch diameter. (A.M. Leonard Company) 12. ESA will perform compaction density evaluation of planting areas prior to planting. Highly compacted ground and/or evidence of a compacted plow pan may require a one-time, deep-tine ripping or other decompaction strategy pior to the installallation of forestry planting. 13. The fields proposed for planting should be mowed prior to planting. Planting areas that are graded and bare will be stabilized with a non-competitive seed mix (see the note section, "Removal of Golf Course

Features from the Afforestation Environmental Buffer").

### PLANTING SPECIFICATIONS

1. Refer to the planting plan and plant schedule for plant material size, location, and spacing. 2. Planting holes should be tractor-drilled, rather than hand-dug. The holes should be twice as wide as the root ball. De-consolidate the soil within the afforestation/reforestation areas 12" by dicing or plowing, except

in areas identified as wetlands on the plan. 3. Backfill mixture for containerized trees shall be 3/4 existing soil mixed with 1/4 organic material or if planted on fill material 12" of native stockpiled topsoil or other approved equal. Remove the trees from the container and gently loosen the roots from the soil. During the backfilling procedure, thoroughly water soil around the root mass while tamping the backfilled mixture to eliminate any air pockets. After backfilling is complete, and the top of the root mass and planting area is mulched, water on the interior of the root mass until it is thoroughly saturated, even if it is raining 4. Only the number of trees that can be planted in one day shall be taken

5. Trees shall not receive an amended backfill mixture but shall be fertilized at the manufacturers' recommended rate. Remove the trees from the container and gently loosen the roots from the soil. Hydrophilic gel should be used in the base of the planting hole to enhance the soil moisture. After backfilling tamp the backfill to eliminate any air pockets. After backfilling is complete, and the top of the root mass and planting area is mulched, water on the interior of the root mass until it is thoroughly saturated, even if it is raining.

Trees shall be mulched after planting, as identified in the details on 7. Remove all tags, labels, string and wire from the planting material after 8. All plant installation shall follow the latest edition of the MNCPPC

9. Stock will be planted in rows to allow for the area to be mowed to control competing vegetation. 10. Planting field should be limited to 2.5 times root ball diameter. Native soil material will be used to backfill plant site and area will be packed to remove air pockets. Rake soil evenly over the planting field and cover hole

with three inches of mulch. Water to settle soil and provide moisture as

### **GUARANTEE AND REPLACEMENT**

publication "Trees-Approved Technical Manual".

All plant material shall be guaranteed by the landscape contractor to remain alive and in a healthy, vigorous condition for a period of one year following planting. This statement applies to the landscape contractor only. 2. At the end of the warranty period, inspection of the plant material will be made by the Owner's representative. Plant material which is dead or in an unhealthy condition shall be removed from the site and replaced at the expense of the landscape contractor. 3. A plant shall be considered dead when the main leader has died back, or 25% of the crown is dead. 4. Plant material replacements shall be of the same size, type, and variety as the plants specified in the planting schedule or as accepted in writing as

substitutes before original planting. Plants shall be furnished, planted, and

mulched as specified in these plans and at the expense of the landscape

### **DEVELOPMENT PROGRAM**

1. The development process for the planting area is as follows:

 Installation of afforestation/reforestation areas and permanent signing. Afforestation/reforestation areas must be accomplished no later than 1 year after the completion of the development project; Maintain the afforestation/reforestation areas for a period of 2 years to guarantee the required survival

Final inspection and release of financial security.

Financial security must be provided before Enforcement and Monitoring staff of MNCPPC authorize clearing and grading activities to begin. 3. The amount of financial security will be equal to the estimated cost of the afforestation/reforestation

4. The financial security will be in force until all measures for afforestation/reforestation and maintenance requirements have been fulfilled to the satisfaction of the MNCPPC Enforcement and Monitoring staff. 5. Partial release of the financial security may be authorized by MNCPPC Enforcement and Monitoring staff after planting has been completed. If staff is satisfied that the planting plan has been followed and the plant material is properly planted and in good condition, up to one-half of the financial security will be

6. Full release of the financial security will be provided by MNCPPC at the end of the two-year maintenance and monitoring period, provided the conservation area passes inspection.

### MAINTENANCE SCHEDULE

1. Forest planting shall commence at the initial stages of development. Forest planting areas are to be covered by a two-year maintenance program, with a two-year bond. The planted areas shall be monitored annually after planting for two years by the Owner's representative. The Owner shall replace any plantings thatt die within that two-year period to a minimum standard of 100 trees per acre or at least 75% of the total trees planted per acre (whichever is greater), so as to ensure compliance with survival requirements stated in the Tree Manual. At the end of the two-year period, the Owner's representative will request M-NCPPC

2. The forest planting requires a rigorous/aggressive, non-native invasive control program for five years (years 1 through 5). An inspection by the M-NCPPC Planning Department Forest Conservation Inspector and the M-NCPPC Parks Forest Ecologist must be made each summer (years 1 through 5) to check for non-native invasive infestation. If invasives are an issue at that time, then measures (mechanical removal or herbicide application as is deemed appropriate by the M-NCPPC Parks Forest Ecologist) will need to be done during the growing season--before the invasives set seed. During each inspection following planting, the Owner's representative, the M-NCPPC Planning Department Forest Conservation Inspector and the M-NCPPC Parks Forest Ecologist will jointly evaluate the need for additional watering, additional fertilizer or lime, and any additional steps to control competing vegetation. Disease potential or any outside influences having a deleterious effect on the mitigation sites will also be assessed.

Notes 1.) All on-site forest retention areas and forest plant areas are to be placed in conservation easements or within park dedication. 2.) Trees are to be planted at least one mower-width apart.

3.) Where specimen trees are near the temporary LOD, an arborist will provide guidance for removing the existing golf course features without damaging the trees. 4.) **SITE PLAN CONDITION 10-C:** The MNCPPC inspector will determine, as part of the pre-construction meeting, trees in a forest stand and located along the limits of disturbance that may be protected and those that will be removed. The inspector may also require mitigation to replace trees that help create forest canopy along the limits of disturbance that are removed as part of this inspection. Mitigation rate will be up to an inch-per-inch diameter at breast height of trees of native stock. 5.) Passage to all of the planting areas for the purpose of the performance maintenance and monitoring will be from rights-of-way and/or trails that access the forest planting areas. 6.) Approximately two-fifths of the afforestation proposed by this Final Forest Conservation Plan is necessary for the Poplar Run project, with the remaining acreage available for sale as a forest mitigation bank. Winchester Homes (Applicant) proposes to create the forest bank in nine phases of approximately 5

7.) The stream restoration plan for the site is a separate plan set. 8.) Winchester Homes has entered into an agreement with the Maryland Department of the Environment for a voluntary cleanup of the soils associated with the existing golf course use (tees and greens) at this property. The temporary limits of disturbance and sediment control protection for this activity is not represented on this FFCP, but is represented on the Sediment Control Plans prepared by LSA entitled " Poplar Run-Voluntary Soils Removal Program". A copy of this supplement plan will be forwarded to MNCPPC for inclusion in the FFCP file for this property.

9.) The site is located within the Northwest Branch watershed. Floodplain area is 45.8 acres (15% of site). Area of Environmental Buffer is 97.4 acres (31% of site). Area of nontidal wetlands is 4.43 acres (1.4% of site). Waters of the U.S. is approximately 10,920 linear feet. The site is not located within a SPA.

41640.0 FOREST CONSERVATION WORKSHEET Poplar Run NET TRACT AREA: = 310.8 \* A. Total tract area B. Land dedication acres (parks, county facility, etc. 0.0 0.0 C. Land dedication for roads or utilities (not being constructed by this plan) = 0.0 D. Area to remain in commercial agricultural production/use = 0.0 E. Other deductions (specify) = 310.8 F. Net Tract Area LAND USE CATEGORY: (from Trees Technical Manual) Input the number "1" under the appropriate land use, limit to only one entry. HDR MPD CIA G. Afforestation Threshold 15% x F = 46.6 20% x F = 62.2 H. Conservation Threshold **EXISTING FOREST COVER:** = 33.0 \* Existing forest cover = 0.0 J. Area of forest above afforestation threshold = 0.0 K. Area of forest above conservation threshold **BREAK EVEN POINT:** = 0.0 L. Forest retention above threshold with no mitigation = 0.0 M. Clearing permitted without mitigation PROPOSED FOREST CLEARING: = 2.8 \* N. Total area of forest to be cleared = 30.2 O. Total area of forest to be retained PLANTING REQUIREMENTS: = 0.0 P. Reforestation for clearing above conservation threshold 5.6 Q. Reforestation for clearing below conservation threshold = 0.0 R. Credit for retention above conservation threshold = 5.6 S. Total reforestation required = 13.6 T. Total afforestation required

\* Actual gross tract area is 310.37 acres. Area on worksheet includes 1 off-site sanitary sewer connection & pedestrian bridge (7,197 sq. ft.) and extension of Tivoli Lakes Boulevard off-site (9,736 sq. ft.). Therefore, 0.39 acre added to tract area, 0.39 acre added to area of existing forest and 0.39 acre added to forest to be cleared - per MNCPPC staff request.

J. Total planting requirement

= 19.2

ACREAGE OF TRACT	310.76 acres
ACREAGE OF TOTAL EXISTING FOREST	33.0 acres
ACREAGE OF FOREST RETENTION	30.2 acres
FOREST CLEARED (Includes 0.39 acre off-site clearing for Tivoli Lake Blvd. and off-site sewer extention)	2.8 acres
FOREST PLANTING AREAS BASE REQUIREMENT (See F.C. Worksheet)	19.2 acres
FOREST PLANTING AREAS MITIGATION FOR BUFFER ENCROACHMENT	5.13 acres
FOREST PLANTING AREAS; FOREST PLANTING BANK	46.3 acres
CREATED FORESTED WETLAND	2.10 acres
TOTAL PROPOSED FOREST PLANTING	72.7 acres
TOTAL FOREST AREA RETAINED AND PLANTED	102.9 acres

### INVASIVE PLANT MANAGEMENT PLAN FOR THE POPLAR RUN AFFORESTATION ENVIRONMENTAL

Afforestation is proposed in an area which was a golf course. The proposed tree plantings are to be 1 to 2-inch caliper stock, which reduces future impacts related to deer browse and invasive vine intrusion. It has been agreed with the MNCPPC Environmental Planning Division, that turf grasses would remain in place and that tree planting holes would be drilled using a tractor with PTO and auger. Since the turf grasses will go fallow through the 5-year invasive plant control program, it is expected that invasive plant encroachment will be possibly inhibited. Areas within the environmental buffer that will be disturbed will be hydro-seeded with the following mix: Virginia wild rye (Elymus virginicus), deer tongue (Dichanthelium clandestinum), bottlebrush grass (Elymus hystrix) at 5 lbs. / acre each, mixed with red fescue (Festuca rubra) at 10 lbs. / acre and cereal barley (or cereal oats or cereal rye) at 30 lbs./acre for a 55 lbs./ acre mix. The cereal grain will provide for a quick start and erosion control planting and will die out once the native grasses become

Based on the type and extent of invasive plant growth during the year 1 growing season, Environmental Systems Analysis, Inc. (ESA), Winchester Homes' environmental sub-contractor, will prepare an invasives management plan. This plan will be submitted to MNCPPC for approval. The approved plan will be implemented during years 1 through 5 of the management program. Management options may include hand removal and/or herbicide application (Garlon for woody plants and Round-Up for herbaceous plants).

Plant species of concern within the first five years will most likely include Microstegium vimineum (stilt grass), Arthraxon hispidus, Ampelopsis brevipedunculata (pocelainberry), Polygonum perfoliatum (mile-a-minute), Rosa multiflora (multiflora rose), Ranunculus ficaria (lesser celandine), Rubus phoenicolasius (wineberry), Celastrus obiculatus (Asiatic

### REMOVAL OF GOLF COURSE FEATURES FROM THE AFFORESTATION **ENVIRONMENTAL BUFFER**

bittersweet) and *Malus/Pyrus/Prunus* spp. (crabapple/pear/cherry).

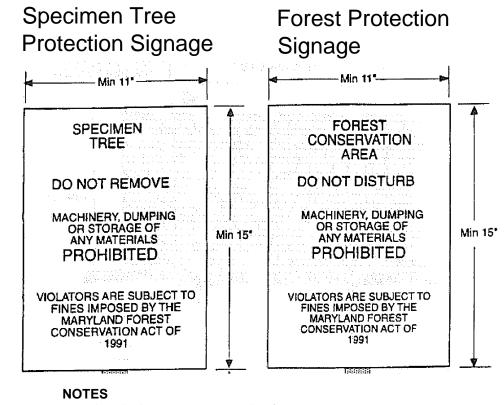
The MNCPPC Environmental Planning Division has requested that Winchester Homes remove all overt golf course features within the floodplain, afforestation areas, and environmental buffer. These features include asphalt golf cart paths, tee & greens, sand traps, irrigation, lighting and utility boxes. These features will be removed and the land graded and tied-out/feathered to match adjacent fairway and natural area grades.

Prior to tree planting, asphalt and any above-ground utilities will be removed from the site. Exposed ground will be de-compacted and then hydro-seeded with an even mix of Virginia wild rye (Elymus virginicus), deer tongue (Dichanthelium clandestinum), bottlebrush grass (Elymus hystrix) at 5 lbs. / acre each, mixed with red fescue (Festuca rubra) at 10 lbs. / acre and cereal barley (or cereal oats or cereal rye) at 30 pounds/acre for a 55 lbs./ acre mix. The cereal grain will provide for a quick start and erosion control planting and will die out once the native grasses become established. This will provide non-competitive cover for subsequent afforestation planting.

A small irrigation pond is within the environmental buffer, and it is not part of LSA's conversion plans. This pond, originally built in uplands is expected to have a nearly 50% reduction/alteration of surface flow input, and was not considered as wetlands/waters through the jurisdictional determination process. The raised berm around the pond creates an artificial appearance, and it is proposed to allow the pond to revert to an emergent

Half of the grassed berm height will be shaved and placed into the basin to create a modestly inundated/saturated basin suitable for wetland plantings. Winchester Homes will use this created wetland for use as wetland mitigation credit for themselves and/or eventual sale as a mitigation bank, prior to release/transfer as part of the Northwest Branch Park

### **TEMPORARY SIGNAGE** Tree Protection Signage

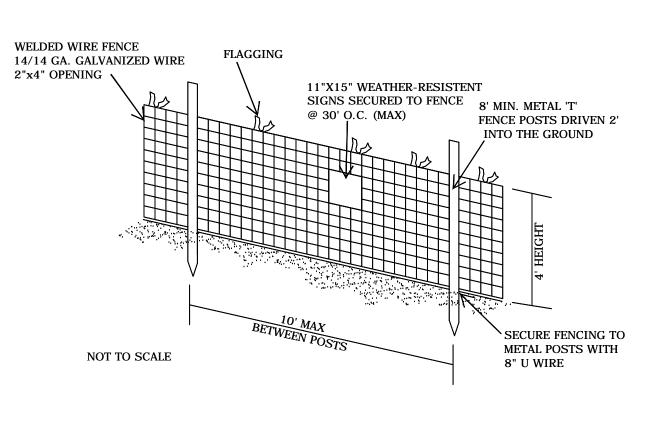


1. Attach signs to tree protection fence (see detail and plans for locations). 2. Attachment of signs to trees is prohibited.

Signs should be properly maintained. 4. Signs should be posted to be visible to all construction personnel from all directions.

Signs are to be high density, flexible, weather-resistent plastic

### TREE PROTECTION FENCE

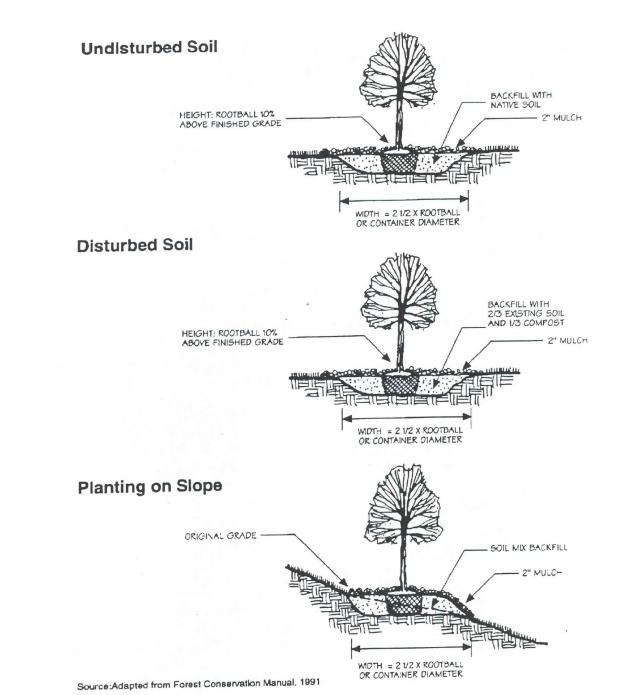


NOTES

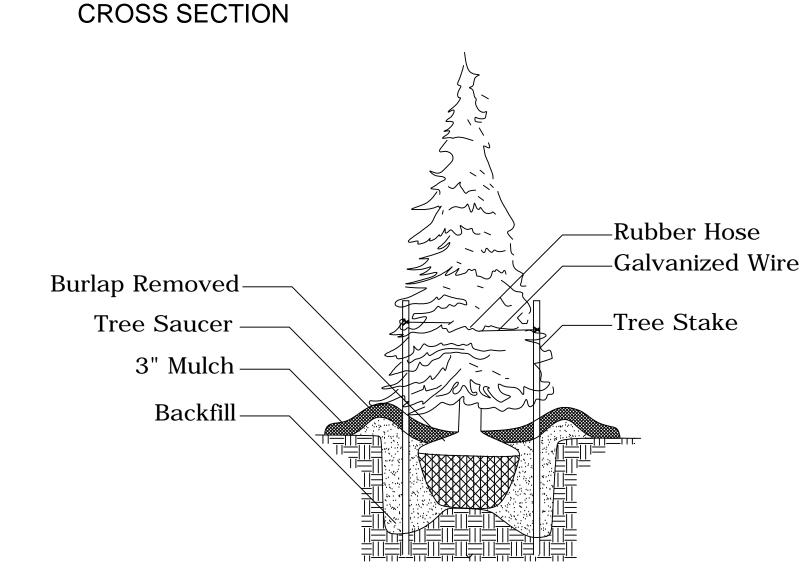
1. Practice may be combined with sediment control fencing. 2. Location and limits of fencing shall be coordinated in field with

3. Boundaries of protection area should be staked prior to installing protective device. 4. Root damage should be avoided. 5. Protective signage is required.

### Container Grown B & B Planting Detail

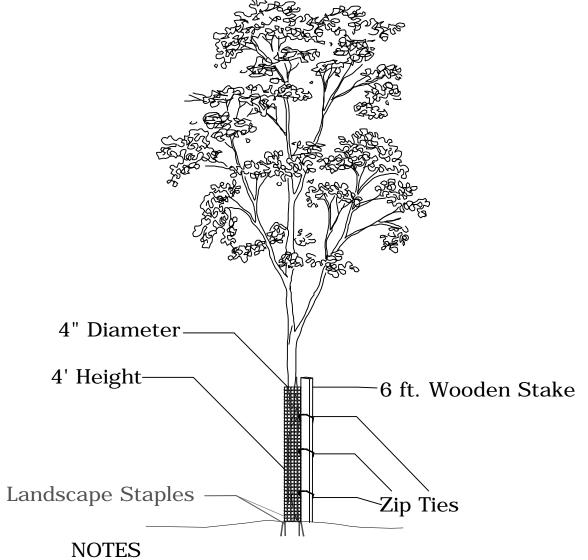


### EVERGREEN PLANTING DETAIL



PLANTING

Tree Protection Sleeve Detail



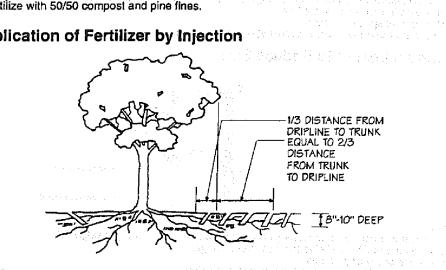
1. Sleeves are 4-foot tall, 4-inch diameter, heavy **plastic** mesh to wrap around each tree planted. (A.M. Leonard Company) 2. Sleeves will be held together using plastic zip ties. 3. Landscape Staples (min. 6") shall be used to prevent sleeve from being lifted.

4. No tree wires are to be installed on any reforestation tree.

### **FERTILIZING** Verticle Mulching or Fertilizing

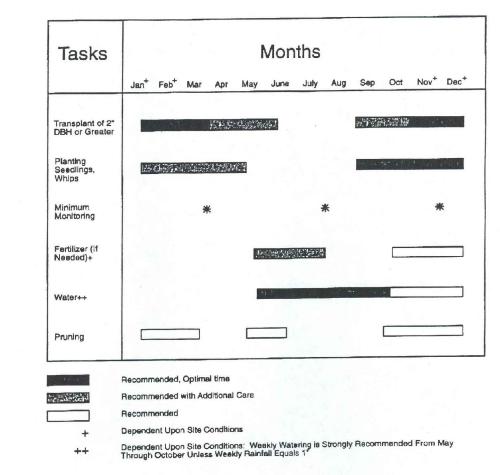
### Vertical Mulching or Fertilizing TRUNK-® 0000000 00/00000 0000000 . . . . . . . . 000000

\_\_\_\_2'-3' APART 1. Auger holes 8\*-10\* deep, 2'-3' apart, 1\*-3\* wide. Leave soil on ground.
 Apply fertilizer 1/3 distance in from dripline to trunk. Fertilize with 50/50 compost and pine fines. Application of Fertilizer by Injection



Notes:
1. Injection holes to be 8"-10" deep, 2'-3' apart. Auger holes, do not poke. Leave soil on ground.Apply fertilizer 1/3 distance in from dripline to trunk and extend 2/3 out from dripline. Source: UMCP

### Tree Planting Calendar



NOTES:

1. Activities during November through February depend on ground conditions. No fall planting of oaks and pines. The planting and care of trees is most successful when coordinated with the local conditions. is calendar summarizes some of the recommended time frames for basic reforestation

and stress reduction activities.

**ROOT PRUNING DETAIL** 

root pruning trench-

1. Retention Areas will be set as part of the review process.

excavated material or topsoil with a high organic content.

3. Exact location of trench should be identified.

limit of forest clearing (adjacent to the LOD).

Park Boundary Post

PERMANENT MARKER

2. Boundaries of Retention Areas should be staked & flagged prior to

4. Trench the area 1' beyond the LOD and excavate approximately 24 inches

5. Immediately after trenching and cutting through all roots in the trench area,

prune the root so as to provide good clean cuts. Backfill the trench with the

7. Apply a 3" deep, 3' wide band of mulch to the tree's critical root zone at the

6. Water the backfilled trench immediately, until trench overflows. Settled

areas should be filled with backfill until level with the existing ground.

1. Posts are 7 ft. long, green vinyl, code# SS-40, available from Long Fence.

2. Each post has 3 to 4 white horizontal stripes, 2.5 to 3 in. wide, spaced approximately 6 in. apart.

3. Posts are spaced along the park property boundary, located at property corners or at

ROOT PRUNING DETAIL

deep with a 4-6 inch trencher.

4.5' above ground

30" in ground

The stripes may be white paint or vinyl white tape.

approximately 300-ft. intervals, as shown on the plans.

NOTES

**CROSS-SECTION** 

Source: Adapted from Forest Conservation Manual, 1991

### PERMANENT SIGNAGE

**PLANTING** 

PLAN VIEW

**GENERAL NOTES:** 

expected to occur.

adjacent to the strips.

PLANTING NOTES:

Locate their intersection point.

5. Plant tree on intersection of offset lines.

replace the dead or dying trees.

is comprised of planting zones 5, 7, and 9.

remainder must be at least 1.5 inches in dbh.

Typical Staggered Linear Planting for Buffer Strip

PLANT LOCATIONS WILL BE DETERMINED BY THE M-NCPPC FOREST CONSERVATION

INSPECTOR, IN COORDINATION WITH A QUALIFIED FORESTRY PROFESSIONAL OR

1. A buffer strip of trees will be planted within parkland at the rear and sides of lots to demarcate the

property boundary between lots and parkland. The buffer strips will be planted during the first

planting season after the earlier of: stabilization of slopes to finished grade within the parkland

inspectors will coordinate in the field when this point in time occurs for each row of lots, and the

M-NCPPC inspector will notify the builder at the appropriate time when the buffer strip planting is

2. The buffer strip will consist of at least two staggered rows of trees, planted 15 feet on center; the strip

3. At least one-fourth of the planted stock in the buffer strip must be at least 2 inches in dbh. The

4. The first row of plantings must be set back no further than 5 feet from the property line of the

5. The buffer strips of planted trees can be counted towards any forest bank planting that occurs

residential lots. At least 75 percent of the first row of plantings must be evergreen species.

6. No FCP bond will be required for the buffer strip planting. There will be a 2-year survivability warranty

materials have been installed and are acceptable. At the end of 2 years, the inspector must

7. There are no specific measures required for the care of planted trees within the buffer strips.

8. The buffer strip areas of dedicated parkland next to the side yards of lots must be planted with

1. The M-NCPPC forest conservation inspector, in coordination with the qualified forestry

3. Stagger second row of trees by offsetting 15' from two adjacent trees along the linear guide

6. Continue locating staggered second row of trees for the entire length of the linear guide line.

professional or landscape architect, will set the linear guide line.

2. Trees will be planted at 15' increments along the linear guide line.

by Winchester Homes. The 2 years start from the time the M-NCPPC inspector determines that plant

determine that the planted trees are growing and are in good shape. If not, Winchester Homes must

Winchester Homes will provide whatever it believes is needed to protect the planted trees for the

smaller species of trees (e.g. dogwood instead of oak) than areas of parkland that are adjacent to the

backs of lots. These areas next to the side yards of lots have their own planting zone list, planting

Where there is a long length of road adjacent to parkland, the buffer strip planting is not necessary.

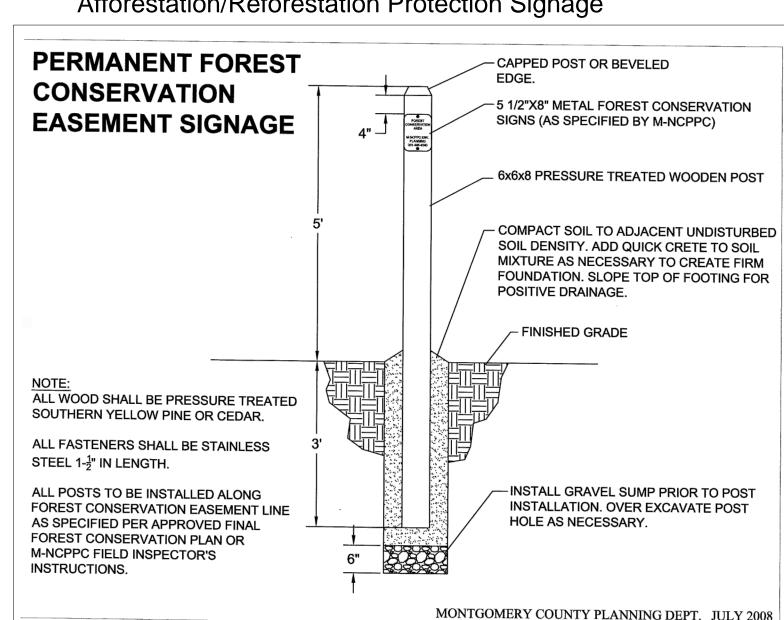
The area in parkland adjacent to the road ROW may be planted/maintained as grass or meadow

adjacent to the lots, or removal of the sediment trap(s) serving the lots. M-NCPPC and DPS

LANDSCAPE ARCHITECT, UTILIZING THE FOLLOWING METHODOLOGY

NOT TO SCALE

Afforestation/Reforestation Protection Signage



Revised FCP based on Env. Planning comments and final engineering Revised FCP based on Env. Planning comments Revised FCP based on Env. Planning comments and Park Dept. comments 4.08 Revised FCP based on Env. Planning comments and final engineering Revised FCP based on Env. Planning comment Revised FCP based on Env. Planning comments Revised plant areas based on DPS comment Revised per site plan amendment & SWM design Revised per Planning staff comments LOD change at Tivoli stream crossing & Phase 3 Revised existing forest total Revised per LOD change at Tivoli stream crossing

### AMENDMENT #3 TO FINAL FCP POPLAR RUN

Addressed county comments, revised existing/clear/save forest

(Formerly Known as Indian Spring)

Montgomery County, Maryland



SCALE: NTS

White Stripes

Ground Leve

ALL ON-SITE FOREST RETENTION AREAS AND FOREST PLANT AREAS ARE TO BE PLACED IN CONSERVATION EASEMENTS OR WITHIN PARK DEDICATION.

BOTANICAL NAME COMMON NAME D.B.H. CONDITION TAG # BOTANICAL NAME COMMON NAME D.B.H. CONDITION **BOTANICAL NAME** COMMON NAME D.B.H. CONDITION BOTANICAL NAME COMMON NAME D.B.H. CONDITION TAG # Poor - 1/2 missing Quercus borealis Moderate - crown loss White Pine Quercus spp. Moderate - crown damage White Pine Betula nigra River Birch Pinus strobus Oak spp. Quercus alba White Oak Liriodendron tulipifera Tulip Poplar (double) Liriodendron tulipifera Tulip Poplar Moderate - reduced crown, hollow Maple spp. Pinus strobus White Pine Red Oak Quercus borealis Acer rubrum Red Maple Ouercus borealis Liriodendron tulipifera White Pine White Oak Tulip Poplar Pinus strobus Pinus strobus White Pine Quercus alba Moderate - crown loss, Red Maple (quad) Acer rubrum Red Maple Acer rubrum Pinus strobus White Pine Acer rubrum 10d lean, @ stream bank Liriodendron tulipifera Tulip Poplar Pinus strobus White Pine Liriodendron tulipifera Tulip Poplar Platanus occidentalis White Pine Liriodendron tulipifera Sycamore Pinus strobus Pinus strobus Tulip Poplar Quercus borealis Liriodendron tulipifera White Pine Pinus strobus Quercus alba Liriodendron tulipifera Tulip Poplar Quercus borealis Prunus serotina Black Cherry Quercus alba White Oak Moderate - 1/2 crown gone Quercus alba White Oak Quercus borealis Moderate some crown loss Quercus borealis Red Oak Quercus borealis Rd Oak River Birch Liriodendron tulipifera White Pine Moderate - reduced crown, hollow Betula nigra Tulip Poplar Pinus strobus Quercus alba White Oak Liriodendron tulipifera Quercus borealis Tulip Poplar Quercus spp. Oak spp. Good - some crown loss, lean Liriodendron tulipifera White Pine Liriodendron tulipifera Tulip Poplar Quercus borealis Tulip Poplar Pinus strobus Liriodendron tulipifera Tulip Poplar Liriodendron tulipifera Tulip Poplar Quercus borealis Red Oak Pinus strobus White Pine Liriodendron tulipifera Moderate - some crown loss Liriodendron tulipifera Tulip Poplar Quercus spp. Oak spp. Quercus borealis Pinus strobus Red Oak Quercus alba White Pine Quercus borealis Pinus strobus Moderate - 1/2 crown gone, 15d lean Liriodendron tulipifera Tulip Poplar Pinus strobus White Pine White Pine Quercus boreali Poor - significant crown loss Liriodendron tulipifera White Pine Red Ok Tulip Poplar Pinus strobus Quercus borealis Quercus alba White Oak White Pine Liriodendron tulipifera Hickory spp. Tulip Poplar Pinus strobus Pinus strobus White Pine Tulip Poplar White Pine Liriodendron tulipifera Liriodendron tulipifera Tulip Poplar Pinus strobus White Pine Pinus strobus Moderate - crown damage Pinus strobus White Pine Quercus borealis White Pine Pinus strobus Pinus strobus White Pine Moderate - basal rot Liriodendron tulipifera Tulip Poplar (double) 26"/28" Pinus strobus White Pine Pinus strobus White Pine Pinus strobus White Pine Liriodendron tulipifera Moderate - trunk & crown damage Tulip Poplar White Pine Quercus borealis Pinus strobus Pinus strobus White Pine Moderate - some limb loss Quercus borealis Pinus strobus White Pine Pinus strobus White Pine Good Pinus strobus White Pine Liriodendron tulipifera Tulip Poplar Pinus strobus White Pine Salix babylonica Willow Pinus strobus White Pine White Pine Quercus borealis Pinus strobus White Pine Pinus strobus Liriodendron tulipifera Tulip Poplar Poor - crown damage, 20d lean White Pine Quercus borealis Pinus strobus Picea abies Norway Spruce Pinus strobus White Pine Quercus borealis Pinus strobus Acer rubrum Red Maple Moderate reduced crown Pinus strobus White Pine White Pine Liriodendron tulipifera Tulip Poplar Platanus occidentalis White Oak Quercus borealis Sycamore Quercus alba 30"/18"/18" Tulip Poplar White Oak (triple) Liriodendron tulipifera Pinus strobus White Pine Fraxinus americana Quercus alca Quercus borealis Liriodendron tulipifera Tulip Poplar Pinus strobus White Pine Liriodendron tulipifera Tulip Poplar Liriodendron tulipifera Tulip Poplar White Pine Liriodendron tulipifera Pinus strobus Pinus strobus Tulip Poplar (double) 24"/15" Liriodendron tulipifera Liriodendron tulipifera Pinus strobus White Pine Liriodendron tulipifera Liriodendron tulipifera Tulip Poplar Liriodendron tulipifera Pinus strobus White Pine Moderate - crown loss, two leader -White Pine Quercus alba Quercus borealis Pinus strobus Quercus spp. one leader leaning at 20d Liriodendron tulipifera Platanus occidentalis Sycamore Liriodendron tulipifera Tulip Poplar Tulip Poplar Good - 15d lean Quercus borealis Liriodendron tulipifera Tulip Poplar Platanus occidentalis Pinus strobus Sycamore Moderate - 1/2 crown gone Liriodendron tulipifera Tulip Poplar White Pine Pinus strobus White Pine Quercus borealis Pinus strobus Liriodendron tulipifera Moderate - some crown loss, 10d lean Tulip Poplar Liriodendron tulipifera Tulip Poplar Oak spp. Pinus strobus Ouercus spp. Liriodendron tulipifera White Pine Liriodendron tulipifera Tulip Poplar Quercus borealis Tulip Poplar Pinus strobus Liriodendron tulipifera Pinus strobus White Pine Carya spp. Hickory spp. Quercus borealis Liriodendron tulipifera Tulip Poplar Pinus strobus White Pine Acer spp. Maple spp. Liriodendron tulipifera Tulip Poplar Pinus strobus White Pine Quercus spp. Oak spp. Moderate -- some crown loss Pinus strobus White Pine Liriodendron tulipifera White Pine White Pine Pinus strobus White Pine Moderate - weak crown Tulip Poplar Pinus strobus Pinus strobus Liriodendron tulipifera Tulip Poplar Pinus strobus Quercus borealis Picea abies Norway Spruce White Pine Liriodendron tulipifera Liriodendron tulipifera White Pine Liriodendron tulipifera Tulip Poplar Tulip Poplar Pinus strobus Tulip Poplar Platanus occidentalis Liriodendron tulipifera Tulip Poplar Pinus strobus White Pine Pinus strobus White Pine Sycamore Moderate - 1/2 canopy gone, basal White Pine Quercus borealis Quercus borealis Pinus strobus Pinus strobus Tulip Poplar (double) 24"/18" Liriodendron tulipifera Pinus strobus White Pine Pinus strobus White Pine Moderate - 20d lean Quercus borealis Quercus borealis Pinus strobus White Pine Picea abies Norway Spruce White Pine (double) Tulip Poplar Moderate - 10d lean Liriodendron tulipifera Liriodendron tulipifera Quercus borealis Pinus strobus Tulip Poplar Liriodendron tulipifera Tulip Poplar Pinus strobus White Pine Pinus strobus White Pine Pinus strobus Tulip Poplar Moderate - 1/2 canopy gone, 10d White Pine Poor - significant damage, part dead Quercus borealis Pinus strobus Quercus spp. Oak spp. Liriodendron tulipifera Liriodendron tulipifera Tulip Poplar (double) 27"/18" Poor - basal rot, canopy damage Moderate - 1/2 crown loss Pinus strobus Quercus spp. Oak spp. Liriodendron tulipifera Tulip Poplar Moderate - crown loss Red Oak Moderate - crown loss Liriodendron tulipifera Tulip Poplar Acer spp. Quercus borealis Hickory spp. (double) 30"/20 \_iriodendron tulipifera iriodendron tulipifera Liriodendron tulipifera Liriodendron tulipifera Poor - hollow trunk, crown loss Quercus alba White Oak Tulip Poplar Platanus occidentalis Sycamore Tulip Poplar White Oak Moderate - 10d lean Pinus strobus White Pine Salix babylonica Quercus alba White Pine Pinus strobus Poor - heavily damaged Poor - almost dead - rotted trunk Pinus strobus White Pine Thuja occidentalis Arborvitae Liriodendron tulipifera Tulip Poplar Quercus spp. White Pine (double) Quercus phellos Willow Oak Quercus spp. Oak spp. Pinus strobus 51" Moderate - thick English Ivy Quercus phellos Willow Oak Acer spp. Maple spp. Pinus strobus White Pine Liriodendron tulipifera Tulip Poplar infestation Liriodendron tulipifera Tulip Poplar Quercus borealis Red Oak Liriodendron tulipifera Tulip Poplar well into canopy Pinus strobus White Pine Moderate - trunk damage Platanus occidentalis Maple spp. Svcamore Pinus strobus White Pine Pinus strobus White Pine Moderate -Pinus strobus White Pine Liriodendron tulipifera Tulip Poplar Pinus strobus White Pine White Pine Maple spp. Pinus strobus Quercus borealis Acer spp. Liriodendron tulipifera Liriodendron tulipifera Tulip Poplar Tulip Poplar Pinus strobus White Pine Maple spp. (triple) Moderate - leaders missing, crown Pinus strobus White Pine Liriodendron tulipifera Oak spp. Pinus strobus White Pine Quercus spp. Liriodendron tulipifera Pinus strobus White Pine Tulip Poplar Liriodendron tulipifera Tulip Poplar Liriodendron tulipifera Platanus occidentalis Sycamore (double) Moderate - vine encrusted, crown Liriodendron tulipifera Tulip Poplar Tulip Poplar Liriodendron tulipifera Tulip Poplar - leaning Moderate -White Pine Tulip Poplar Pinus strobus Quercus spp. Liriodendron tulipifra White Pine Pinus strobus Maple spp. Quercus alba White Oak Quercus spp. Tulip Poplar (double) 26"/30" White Pine Moderate - lean, crown loss Pinus strobus White Pine Liriodendron tulipifera Pinus strobus Quercus alba Pinus strobus White Pine Pinus strobus Pinus strobus White Pine Liriodendron tulipifera Tulip Poplar (double) Liriodendron tulipifera Oak spp. Liriodendron tulipifera Tulip Poplar Quercus borealis Tulip Poplar Quercus spp. Poor - heavily damaged, 30d lean, White Pine (double) Liriodendron tulipifera Tulip Poplar Pinus strobus Pinus strobus Liriodendron tulipifera split trunk Pinus strobus White Pine Hickory spp. Pinus strobus Liriodendron tulipifera White Pine Tulip Poplar Liriodendron tulipifera Tulip Poplar Pinus strobus Fraxinus americana White Ash Willow Poor - damaged crown, vine encrusted Liriodendron tulipifera Tulip Poplar Tulip Poplar Quercus borealis Salix babylonica Liriodendron tulipifera White Pine White Pine Acer rubrum Pinus strobus Pinus strobus Liriodendron tulipifera Tulip Poplar Liriodendron tulipifera Tulip Poplar White Pine Quercus borealis Pinus strobus Liriodendron tulipifera Tulip Poplar Moderate - reduced crown Liriodendron tulipifera Tulip Poplar Liriodendron tulipifera Tulip Poplar Thuja occidentalis Arborvitae Quercus alba White Oak Liriodendron tulipifera Pinus strobus Pinus strobus White Pine Acer spp. Maple spp. Liriodendron tulipifera Tulip Poplar Pinus strobus White Pine Liriodendron tulipifera Quercus borealis Tulip Poplar Moderate - 1/2 crown gone Liriodendron tulipifera Tulip Poplar Liriodendron tulipifera Liriodendron tulipifera Quercus spp. Oak spp. Moderate - some crown & storm damage Moderate -Sycamore (double) Liriodendron tulipifera Platanus occidentalis Liriodendron tulipifera Tulip Poplar Moderate - 10d lean Liriodendron tulipifera Salix babylonica Weeping Willow Tulip Poplar Quercus spp. Quercus borealis Moderate - 1/2 crown gone White Oak Liriodendron tulipifera Tulip Poplar White Pine Tulip Poplar Pinus strobus Liriodendron tulipifera Quercus alba White Pine Liriodendron tulipifera Hickory spp. Tulip Poplar Liriodendron tulipifera Tulip Poplar Pinus strobus Moderate - reduced crown White Pine Liriodendron tulipifera Tulip Poplar Liriodendron tulipifera Tulip Poplar Pinus strobus Liriodendron tulipifera Tulip Poplar Good - one leader removed White Pine Liriodendron tulipifera Tulip Poplar Acer spp. Pinus strobus Liriodendron tulipifera Tulip Poplar Liriodendron tulipifera Tulip Poplar Liriodendron tulipifera Tulip Poplar Quercus spp. Oak spp. Liriodendron tulipifera Tulip Poplar Liriodendron tulipifera Tulip Poplar Quercus spp. Salix babylonica Willow Liriodendron tulipifera Tulip Poplar Poor - minimal crown, 10d lean Quercus borealis Quercus spp. Oak spp. Quercus spp. Oak spp. Liriodendron tulipifera Tulip Poplar White Pine Quercus alba White Oak Moderate - 1/2 crown gone, 10d lean Pinus strobus Quercus spp. Oak spp. Liriodendron tulipifera Tulip Poplar White Pine Red Oak Moderate - 1/2 crown gone Willow Quercus borealis Pinus strobus Salix babylonica Liriodendron tulipifera Tulip Poplar Willow Red Maple (double) Moderate - crown damage, 10d lean Liriodendron tulipifera Tulip Poplar Acer rubrum Salix babylonica Quercus borealis Liriodendron tulipifera Liriodendron tulipifera Tulip Poplar Tulip Poplar Pin Oak Poor - damaged crown Quercus spp. Oak spp. Quercus palustris Moderate - trunk damage Liriodendron tulipifera Tulip Poplar (double) 37"/29" Liriodendron tulipifera Tulip Poplar Liriodendron tulipifera Tulip Poplar Maple spp. Acer spp. Moderate - some crown loss Liriodendron tulipifera Tulip Poplar Pinus strobus Salix babylonica Liriodendron tulipifera Tulip Poplar Quercus alba Liriodendron tulipifera Tulip Poplar Pinus strobus White Pine Quercus borealis Tulip Poplar (double) 26"/26" Quercus borealis Moderate - some crown loss Liriodendron tulipifera Platanus occidentalis Tulip Poplar (double) Liriodendron tulipifera Poor - 1/2 dead Willow Moderate - some damage Tulip Poplar Liriodendron tulipifera Tulip Poplar Salix babylonica Liriodendron tulipifera Tulip Poplar Liriodendron tulipifera Tulip Poplar Liriodendron tulipifera Liriodendron tulipifera Tulip Poplar Liriodendron tulipifera Red Oak Pinus strobus Tulip Poplar White Pine Quercus borealis Carya spp. White Oak Liriodendron tulipifera Tulip Poplar Maple spp. Liriodendron tulipifera Tulip Poplar Quercus alba Red Maple Moderate - 1/2 crown gone Quercus borealis Acer rubrum Acer rubrum Red Oak Quercus borealis Poor - hollow trunk, crown damage Red Maple Liriodendron tulipifera Tulip Poplar Poor - hollow trunk Red Oak Moderate - dead leader Acer rubrum Quercus borealis Acer spp. Quercus borealis White Oak Liriodendron tulipifera Quercus alba Acer rubrum Quercus borealis Red Oak Liriodendron tulipifera Tulip Poplar Pinus strobus White Pine Liriodendron tulipifera Quercus borealis Red Oak Liriodendron tulipifera Tulip Poplar Moderate - crown loss Pinus strobus White Pine Quercus borealis Red Oak Liriodendron tulipifera Tulip Poplar Liriodendron tulipifera Black Cherry Moderate - 30d lean Prunus serotina Tulip Poplar Quercus borealis Red Oak Quercus borealis Liriodendron tulipifera Tulip Poplar Liriodendron tulipifera Red Oak Tulip Poplar Quercus borealis Quercus borealis Moderate - large leader gone Tulip Poplar White Pine Liriodendron tulipifera Quercus spp. Quercus borealis Pinus strobus Tulip Poplar (double) iriodendron tulipifera Tulip Poplar Liriodendron tulipifera Tulip Poplar Liriodendron tulipifera Quercus spp. Liriodendron tulipifera Liriodendron tulipifera Tulip Poplar Tulip Poplar Quercus borealis Liriodendron tulipifera Tulip Poplar Liriodendron tulipifera Liriodendron tulipifera Liriodendron tulipifera Maple spp. Tulip Poplar Tulip Poplar Quercus spp. Maple spp. Quercus borealis Red Oak Quercus borealis Acer rubrum Red Maple Quercus borealis Red Oak Liriodendron tulipifera Tulip Poplar Liriodendron tulipifera Tulip Poplar Tulip Poplar Liriodendron tulipifera Liriodendron tulipifera Maple spp. Quercus borealis Tulip Poplar Red Oak Red Oak (double) Pinus virginiana Virginia Pine Quercus borealis Quercus borealis Carya spp. Hickory spp. Red Maple White Pine Red Oak Acer rubrum Poor - 1/2 crown gone Pinus strobus Quercus borealis Quercus borealis Red Maple Acer rubrum Red Maple (double) Quercus alba White Oak Liriodendron tulipifera Tulip Poplar Acer rubrum Red Maple (double) 40"/30" Liriodendron tulipifera Tulip Poplar Maple spp. Acer rubrum Liriodendron tulipifera Tulip Poplar White Pine Pinus strobus Fraxinus americana White Ash Liriodendron tulipifera Tulip Poplar Pinus strobus White Pine Pinus strobus White Pine Quercus spp. Oak spp. Quercus borealis Red Oak Liriodendron tulipifera Tulip Poplar Pinus strobus White Pine uercus spp. Oak spp. Quercus alba White Oak Liriodendron tulipifera Tulip Poplar Maple spp. (double) 33"/33" Tulip Poplar Pinus strobus White Pine Acer spp. Moderate crown loss Liriodendron tulipifera Liriodendron tulipifera Tulip Poplar Pinus strobus White Pine Oak spp. Moderate - crown damage Liriodendron tulipifera Tulip Poplar Quercus spp. Quercus borealis Pinus strobus White Pine White Oak Pinus strobus Quercus alba Liriodendron tulipifera Tulip Poplar Liriodendron tulipifera Tulip Poplar Red Oak Liriodendron tulipifera Quercus borealis Tulip Poplar Acer spp. Albizzia julibrissin Mimosa Liriodendron tulipifera Tulip Poplar Maple spp. Liriodendron tulipifera Maple spp. (double) Liriodendron tulipifera Liriodendron tulipifera Liriodendron tulipifera Liriodendron tulipifera Liriodendron tulipifera Tulip Poplar Liriodendron tulipifera Quercus borealis Moderate - lean, reduced crown Pinus strobus White Pine Acer rubrum Liriodendron tulipifera Tulip Poplar Quercus borealis Red Oak Poor - heavily damaged White Pine Tulip Poplar Red Oak Pinus strobus Prunus serotina Black Cherry Liriodendron tulipifera Quercus borealis Black Cherry Prunus serotina Quercus borealis Quercus borealis Liriodendron tulipifera Liriodendron tulipifera Tulip Poplar Tulip Poplar White Pine Liriodendron tulipifera Tulip Poplar Pinus strobus Good Carya spp. Hickory spp. Liriodendron tulipifera Tulip Poplar Hickory spp Liriodendron tulipifera Tulip Poplar Pinus strobus White Pine Liriodendron tulipifera Tulip Poplar Red Oak Liriodendron tulipifera Tulip Poplar Quercus borealis Liriodendron tulipifera Tulip Poplar (double) Tulip Poplar Poor - hollow trunk, poor crown Liriodendron tulipifera Tulip Poplar iriodendron tulipifera White Pine Liriodendron tulipifera Tulip Poplar Moderate - 10d lean Pinus strobus Tulip Poplar Liriodendron tulipifera Quercus borealis Pinus strobus White Pine Liriodendron tulipifera Liriodendron tulipifera Tulip Poplar Liriodendron tulipifera Tulip Poplar Good Pinus strobus White Pine Liriodendron tulipifera Red Oak Quercus borealis Good Tulip Poplar (double White Oak Liriodendron tulipifera Acer rubrum Quercus alba Liriodendron tulipifera Tulip Poplar Liriodendron tulipifera Red Oak Pinus strobus White Pine Tulip Poplar Quercus borealis Liriodendron tulipifera Tulip Poplar Moderate - 20d lean Liriodendron tulipifera White Pine Liriodendron tulipifera Pinus strobus White Pine Tulip Poplar Pinus strobus Tulip Poplar Pinus strobus White Pine Acer rubrum Red Maple Pinus strobus White Pine Liriodendron tulipifera Tulip Poplar Pinus strobus White Pine Pinus strobus White Pine Liriodendron tulipifera Tulip Poplar Liriodendron tulipifera Tulip Poplar White Pine Liriodendron tulipifera Tulip Poplar Tulip Poplar Tulip Poplar Pinus strobus iriodendron tulipifera. Liriodendron tulipifera Red Maple Liriodendron tulipifera Tulip Poplar Acer rubrum Liriodendron tulipifera Tulip Poplar Tulip Poplar Liriodendron tulipifera \* Asterisk denotes trees lost due to Hurricane Isabel in September, 2003.

DEVELOPER'S CERTIFICATE

The Undersigned agrees to execute all the features of the Approved Final Forest

Conservation Plan No. #82007002C including, financial bonding, forest planting, maintenance, and all other applicable agreements.

Developer's Name: Winchester Homes

Printed Company Name

Contact Person or Owner:

Michael Lemon

Printed Name

6905 Rockledge Drive, Suite 800, Bethesda, MD 20817

301-803-4800 michael.lemon@whihomes.com

Phone and Email:



AMENDMENT #3 TO FINAL FCP

### POPLAR RUN (Formerly Known as Indian Spring)

Montgomery County, Maryland

SCALE: NTS

DATE: 06.11.14

Environmental Systems DRAWING: 2003\04-Indian Spring\CAD Drawings\Individual Drawings\Amend 3

Annapolis, Maryland 21401 SHEET: 12 of 13

TAG #	BOTANICAL NAME	COMMON NAME	D.B.H.	CONDITION	TAG #	BOTANICAL NAME	COMMON NAME	D.B.H.
601 602	Acer spp. Liriodendron tulipifera	Maple spp. Tulip Poplar	26" 26"	Good Good	791 792	Liriodendron tulipifera Liriodendron tulipifera	Tulip Poplar Tulip Poplar	37" 30"
603 604	Platanus occidentalis Quercus borealis	Sycamore Red Oak	28" 24"	Good Good	793 794	Quercus borealis Liriodendron tulipifera	Red Oak Tulip Poplar	31" 30"
605 606	Liriodendron tulipifera Liriodendron tulipifera	Tulip Poplar (double) Tulip Poplar	24"/24" 28"	Good Good	795 796	Liriodendron tulipifera Liriodendron tulipifera	Tulip Poplar Tulip Poplar	33" 30"
607 608	Quercus borealis Liriodendron tulipifera	Red Oak Tulip Poplar Tulip Poplar	34" 24"	Good Good	797 798	Liriodendron tulipifera Liriodendron tulipifera	Tulip Poplar Tulip Poplar	31" 37"
609 610 611	Liriodendron tulipifera Liriodendron tulipifera Liriodendron tulipifera	Tulip Poplar (double) Tulip Poplar Tulip Poplar	28"/26" 33" 28"	Good Good Good	799 800	Liriodendron tulipifera Liriodendron tulipifera	Tulip Poplar Tulip Poplar	28" 32"
612 613	Liriodendron tulipifera Acr spp.	Tulip Poplar (double) Maple spp.	30"/18" 35"	Good Good	Lettered Ti	rees - Not Tagged		
614 615	Liriodendron tulipifera Quercus spp.	Tulip Poplar Oak spp.	32" 27"	Good Good	A	Quercus borealis	Red Oak	28"
616 617	Quercus borealis Quercus borealis	Red Oak Red Oak	30" 36"	Good Good	B C	Quercus alba Prunus serotina	White Oak Black Cherry	28" 24"
618 619 620	Platanus occidentalis Pinus strobus Acer spp.	Sycamore White Pine (triple) Maple spp. (triple)	24" 30"/18"/18" 24"/24"/12"	Good Good Good	D E F	Quercus alba Quercus alba Quercus borealis	White Oak White Oak Red Oak (double)	26" 32" 36"/30"
621 622	Liriodendron tulipifera Platanus occidentalis	Tulip Poplar (double) Sycamore	28"/26" 24"	Good Good	M N	Acer rubrum Quercus spp.	Red Maple (double) Oak spp.	27"/27 <b>"</b> 28"
623 624	Pinus strobus Pinus strobus	White Pine White Pine	26" 26"	Good Good	0 P	Liriodendron tulipifera Liriodendron tulipifera	Tulip Poplar Tulip Poplar	27" 26"
625 626	Carya spp. Pinus strobus	Hickory spp. White Pine	28" 26"	Good Good				
627 628 629	Pinus strobus Carya spp. Platanus occidentalis	White Pine Hickory spp. Sycamore	30" 26" 24"	Good Good Good				
630 631	Platanus occidentalis Pinus strobus	Sycamore White Pine	27" 24"	Good Good				
632 633	Platanus occidentalis Pinus strobus	Sycamore White Pine	38" 36"	Good Good				
634 635	Pinus strobus Pinus strobus	White Pine White Pine	26" 42"	Good Good				
636 637	Platanus occidentalis Quercus borealis	Sycamore Red Oak	26" 36"	Good Good				
638 639 640	Platanus occidentalis Carya spp. Quercus alba	Sycamore Hickory spp. White Oak	27" 30" 44"	Good Good Moderate - crown damage (off prop.)				
641 642	Platanus occidentalis Carya spp.	Sycamore Hickory spp.	37" 33"	Good Moderate - crown damage				
643 644	Acer spp. Platanus occidentalis	Maple spp. (quad.) Sycamore	30"/18"/18"/12" 30"	Good Moderate – crown damage				
645 646	Pinus strobus Pinus strobus	White Pine White Pine	24" 24"	Good Good				
647 648 649	Platanus occidentalis Pinus strobus Acer spp.	Sycamore White Pine Maple spp. (triple)	28" 32" 28"/28"/12"	Good Good Good				
650 651	Platanus occidentalis Pinus strobus	Sycamore White Pine	30" 26"	Good Good				
652 653	Pinus strobus Pinus strobus	White Pine White Pine	32" 30"	Good Good				
654 655	Carya spp. Acer spp.	Hickory spp. Maple spp. (triple)	32" 30"/20"/18"	Good Good				
656 657	Pinus strobus Platanus occidentalis	White Pine Sycamore Manle one (guad )	29" 32" 24"/18"/18"/18"	Good (off property)				
658 659 660	Acer spp. Fraxinus americana Liriodendron tulipifera	Maple spp. (quad.) White Ash (double) Tulip Poplar	28"/28" 26"	Good Good Good				
661 662	Acer spp. Pinus strobus	Maple spp. (quad.) White Pine	28"/26"/18"/18" 32"	Good Good				
663 664	Acer spp. Pinus strobus	Maple spp. White Pine	32" 34"	Good Good				
665 666	Pinus strobus Pinus strobus	White Pine White Pine	26" 34" 50"	Good Good Good				
667 668 669	Platanus occidentalis Platanus occidentalis Pinus strobus	Sycamore Sycamore White Pine	30" 34"	Good Good				
670 671	Pinus strobus Pinus strobus	White Pine White Pine	30" 32"	Good Good				
672 673	Prunus serotina Pinus strobus	Black Cherry White Pine	37" 34"	Moderate - crown loss Good				
674 675	Pinus strobus Pinus strobus	White Pine White Pine	30" 36"	Good Good				
676 677 678	Pinus strobus Quercus alba Pinus strobus	White Pine White Oak White Pine	45" 24" 34"	Good Good Good				
679 680	Pinus strobus Quercus borealis	White Pine Red Oak	32" 28"	Good Good				
681 682	Acer spp. Liriodendron tulipifera	Maple spp. Tulip Poplar	30" 32"	Good Good				
683 684	Acer spp. Platanus occidentalis	Maple spp. Sycamore (double)	30" 30"/24"	Good Good				
685 686 687	Platanus occidentalis Quercus borealis Platanus occidentalis	Sycamore Red Oak Sycamore	28" 29" 32"	Good Moderate - vine encrusted (off. prop.) Good				
688 689	Liriodendron tulipifera Liriodendron tulipifera	Tulip Poplar (double) Tulip Poplar	28"/20" 29"	Good Good				
690 691	Fraxinus americana Carya spp.	White Ash Hickory spp.	26" 32"	Good Poor - hollow trunk, poor crown				
692 693	Pinus strobus Pinus strobus	White Pine White Pine	27" 27"	Good Good				
694 695 696	Platanus occidentalis Acer spp. Platanus occidentalis	Sycamore Maple spp. Sycamore	28" 42" 40"	Good Good Good				
697 698	Acer spp. Quercus borealis	Maple spp. Red Oak	30" 27"	Moderate - lean, crown damage Good				
699 700	Quercus borealis Acer spp.	Red Oak Maple spp.	24" 27"	Good Good				
737 738	Liriodendron tulipifera Liriodendron tulipifera	Tulip Poplar Tulip Poplar	24" 28"	Good Good				
739 740 741	Quercus alba Liriodendron tulipifera Liriodendron tulipifera	White Oak Tulip Poplar Tulip Poplar	29" 32" 35"	Good Good Moderate - hollow trunk				
742 743	Liriodendron tulipifera Liriodendron tulipifera	Tulip Poplar Tulip Poplar	25" 29"	Good Good				
745 746	Liriodendron tulipifera Liriodendron tulipifera	Tulip Poplar Tulip Poplar	28" 29"	Good Good				
747 748	Quercus borealis Liriodendron tulipifera	Red Oak Tulip Poplar	30" 34"	Good Good				
750 751 752	Liriodendron tulipifera Liriodendron tulipifera Quercus alba	Tulip Poplar Tulip Poplar White Oak	42" 26" 30"	Good Good Good				
753 754	Liriodendron tulipifera Liriodendron tulipifera	Tulip Poplar Tulip Poplar	39" 30"	Good Good				
755 756	Liriodendron tulipifera Fraxinus americana	Tulip Poplar White Ash	34" 28"	Good Good				
757 758	Liriodendron tulipifera Liriodendron tulipifera	Tulip Poplar Tulip Poplar	39" 32"	Good Good				
759 760	Liriodendron tulipifera Quercus borealis	Tulip Poplar (triple) Red Oak	12"-20"-24" 33"	Good Good				
761 762 763	Liriodendron tulipifera Liriodendron tulipifera Liriodendron tulipifera	Tulip Poplar Tulip Poplar Tulip Poplar	31" 31" 36"	Good Good Good				
764 765	Liriodendron tulipifera Liriodendron tulipifera Liriodendron tulipifera	Tulip Poplar Tulip Poplar Tulip Poplar	29" 24"	Good Good				
766 767	Liriodendron tulipifera Liriodendron tulipifera	Tulip Poplar Tulip Poplar	40" 34"	Good Good				
768 769	Fraxinus americana Liriodendron tulipifera	White Ash Tulip Poplar	25" 26"	Good Good				
770 771 772	Liriodendron tulipifera Liriodendron tulipifera Liriodendron tulipifera	Tulip Poplar Tulip Poplar Tulip Poplar	38" 34" 37"	Good Good Good				
773 774	Fagus grandifolia Liriodendron tulipifera	American Beech Tulip Poplar	28" 47"	Good Good				
775 776	Liriodendron tulipifera Quercus borealis	Tulip Poplar Red Oak	33" 31"	Good Good				
777 778	Quercus borealis Liriodendron tulipifera	Red Oak Tulip Poplar	30" 26"	Good Good				
779 780 781	Liriodendron tulipifera Liriodendron tulipifera Liriodendron tulipifera	Tulip Poplar Tulip Poplar Tulip Poplar	33" 32" 33"	Good Good Good				
782 783	Liriodendron tulipilera Liriodendron tulipifera Liriodendron tulipifera	Tulip Poplar Tulip Poplar Tulip Poplar	28" 28"	Good Good				

### NRI / FSD Narrative

PART OF THE FIELD WORK FOR THIS NRI / FSD WAS PERFORMED IN MARCH. 2003 PRE-EMERGENT WINTER CONDITIONS

### INTRODUCTION AND DESCRIPTION OF THE SITE:

acres) along the southern property line.

The gross tract area is 308.36 Acres

CONDITION

The purpose of this study is to describe the forest and / or tree cover, existing vegetation and other significant environmental features for the subject property referenced below. A development application

for an 18 hole golf course and residential land use is proposed for this property. The property is predominantly zoned R-200 (297.56 acres) along with a relatively small area of R-90 (10.8

The subject property lies east of Layhill Road, approximately 6,600 feet north of the Layhill Road intersection with Georgia Avenue (Md. Route 97). The main property area is connected to Layhill Road by a 60 foot wide "pipestem" strip which is approximately 2,000 feet long and runs west to east toward the main property.

The property is bounded on the north by single family residences of the Layhill View subdivision, on the east by the Northwest Branch stream valley parkland, and on the south and southwest by the subdivisions of Tivoli, Layhill Gardens and Middlebridge.

The subject property consists of four unsubdivided land parcels as follows:

 Parcel 180 (Tax Map JR121) Part II of Liber 19844 at Folio 480 Parcel 772 (Tax Map JR122) Part I of Liber 19844 at Folio 480 83.00 Acres - Parcel 815 (Tax Maps JR 342 Part III of Liber 19844 at Folio 480 & JR341) - Parcel 893 (Tax Map JR 122) Part IV of Liber 19844 at Folio 480 3.08 Acres

### EXISTING SITE CONDITIONS

The summary map describes in detail existing features of the subject property. In general, the property is currently in use as a private membership country club. It contains two 18 hole championship length golf courses, a large club house with multiple restaurant facilities & locker rooms, a number of tennis courts and a large outdoor swimming pool complex. In addition, support facilities including a golf maintenance building and various storage buildings are located throughout the property. Multiple asphalt parking areas surroound the club house and maintenance complex. A paved entrance drive connects the parking facilities to Layhill Road. Numerous paved golf cart paths traverse the two golf courses throughout the property.

### TOPOGRAPHY AND DRAINAGE

The property is characterized by a ridge line which runs north to south through the center of the tract. Land east of the ridge slopes downward from the ridge crest 50 to 60 feet to the eastern property line which is at approximately the same elevation as the Northwest Branch stream bank. A natural drainageway containing a perennial stream runs parallel to the central ridge line just west of the ridge. The flow of the stream emanates from a 1.3 acre irrigation pond located in the rough center of the property. The elevation of this drainageway is about 30 feet below and parallel to the ridge crest.

A tributary known as Bel Pre Creek enters the southwest corner of the property and parallels the southern property line. This tributary flows easterly and joins the main Northwest Branch near the southeast corner of the subject property. Steep slopes rise from the southern bank of Bel Pre Creek and continue rising to

A natural drainageway emanates from the golf driving range located just west of the club house near the main western property line. The golf driving range is a large topographical "bowl" which drains towards a low point just on the north side of the entrance driveway where flow enters a pipe. Beyond the driveway and below the piped outfall from the driving range lies an intermittent stream which flows southward toward Bel Pre Creek. The stream valley along this flow consists of very steep slopes lying under forest cover.

A final drainageway is located along the center of the northern property line. This flow is apparently intermittent, and is generated by the golf course runoff. The stream contained in this drainageway flows about 250 feet through the subject property and exits across the northern property line in a northeasterly direction.

See the Summary Map for a delineation of appropriate stream buffers associated with the above described natural drainageways.

Based on Maryland-National Capital Park and Planning Commission floodplain maps, 66.7 acres of the subject property is designated as 100 Year Floodplain. This is 21.6% of the gross tract area. A non-tidal wetland delineation has been conducted by McCarthy Associates with jurisdictional determination by the U.S. Army Corps of Engineers pending at the time of this narrative preparation.

### SOILS

The 1995 "Soil Survey of Montgomery County, Maryland" Map 20 indicates the following soil types as being present on the subject property:

- 1C Gaila Silt Loam, 8 - 15% slopes Glenelg Silt Loam, 3 - 8% slopes Glenelg Silt Loam, 8 - 15% slopes

- 5B Glenville Silt Loam, 3 - 8% slopes 6A Baile Silt Loam, 0 - 3% slopes - Hydric soil

Please see the Summary Map for location of these soils on the subject property.

- 16D Brinklow-Blocktown Channery Silt Loam, 15 - 25% slopes - Erodible soil 41B Elsinboro Silt Loam, 3 - 8% slopes 54A Hatboro Silt Loam, 0 - 3% slopes - Hydric soil

Hydric soils are noted per the Natural Resources Conservation Service's "Hydric Soils List" for the state of Maryland, issued Dec. 15, 1995 (Revised). Erodible soils are per the "Erodible Soils List" contained in the Montgomery Couonty "Environmental Guidelines", MNCPPC, January, 2000.

### FOREST DESCRIPTION

Based on criteria set forth in the "Trees" Approved Technical Manual (MNCPPC, September, 1992), nine separate forest stands have been identified on the subject property. The total land coverage of these nine stands is 31.65 acres or approximately 10.3% of the gross tract area. In addition to the forest cover, a significant amount of "tree cover" has been identified as part of this study. Tree cover areas have been found to be prevalent throughout the property, especially associated with the golf courses. These tree cover areas are generally maintained by mowing or mulching and do not contain the understory and/or herbaceous layering essential for true forest ecological association. Tree cover areas are labeled "Not forest" on the Summary Map.

The following is a listing and brief description of each individual forest stand. Stand letter designation is as indicated on the Summary Map:

### STAND A Area = 11.64 acres

This stand includes forested steep slopes along a stream valley. The codominant species are Tulip Poplar (Liriodendron tulipifera), Red Oak (Quercus borealis) and White Oak (Quercus alba). The stand is split by the access road. Approximately 1 acre of the stand lies north of the access road adjacent to the golf driving range. This small part of the stand is codominated by Tulip Poplar and Red Oak along with lesser numbers of White Oak and Red Maple (Acer rubrum). The understory in this small part of Stand A is generally open and lightly growing with a notable mass of Rugosa Rose along the drainageway bank near the road.

The main part of Stand A south of the access road, aside from the codominant species listed above, contains an understory of Flowering Dogwood (Cornus florida), some American Hollies (Ilex opaca), Red Cedars (Juniperus virginiana) - especially near the access road - and various seedlings and saplings of the parent species. The understory is moderate and herbaceous layer was not evident at the time of the survey (March).

The overall health of Stand A is good to excellent. Most of Stand A lies within the basic or expanded stream

### STAND B Area = 0.60 acres

buffer and as such will not be proposed for development activity.

Stand B lies on a slope and small plateau along the northern property line, adjacent to the golf maintenance building. This small stand is dominated by Tulip Poplar along with a lesser quantity of Red Oaks and a few White Pines (Pinus strobus). The understory is fairly dense and includes significant downed woody material. Some landscape debris evidently from adjacent residences has been deposited in the forest edges.

The health of Stand B is good but with some negative conditions caused by debris disposal.

### STAND C Area = 3.55 acres

Stand C lies in the north central area of the property. This stand varies in consistency from a healthy hardwood growth to evergreen enclaves to an almost hedgerow characteristic. See the Summary Map for particular descriptions. The main part of Stand C follows a natural drainageway which flows north to south in the north center of the property. The stand is codominated by Red Oak, White Oak and Virginia Pine. The Virginia Pine lies mostly along the eastern edge of the stand along the golf course with the oaks being found mostly in the center of the stand along the drainageway. The understory is moderately dense with a thick infestation of Multiflora Rose being found along the eastern edge near the Virginia Pines. The health of Stand C is good.

### STAND D Area = 2.95 acres

Stand D is split into two parts and runs along the northeast edge of the subject property. The main part of the stand (northern part) is dominated by Tulip Poplar. Lesser quantities of White Oak, Red Oak and Black Cherry can also be found. Understory areas contain seedlings and some Flowering Dogwood.

Stand D is split by an area of dense invasive plants including Multiflora Rose and Japanese Honeysuckle as noted on the Summary Map. The southern part of Stand D continues off-site to the north into the Northwest Branch stream valley. The southern edge of this stand is over an area of standing water (at the time of this survey).

The herbaceous layer was not evident since this survey was performed in March.

The health of Stand D is excellent.

### STAND E Area = 5.21 acres

Stand E is found in the north-center of the subject property between several golf fairways. This stand has an east and south slope aspect. The dominant tree species is Tulip Poplar. Some Red and White Oaks are also found in this stand, but Tulip Poplar is the heavy dominant quantity. A large area of downed pole-sized timber is located in the southwest area of this stand where the slope turns from east facing to souothfacing. Understory varies from dense seedlings to an area in the north center where there is no understory and an open canopy. The Summary Map indicates areas where significant invasive species

As in the previous stands, the invasive layer was not yet evident at the time of this survey.

The health of Stand E is excellent.

### STAND F Area = 1.41 acres

are present in this stand.

Stand F lies along the eastern edge of the property. This stand is the fringe of the large stand which continues into the Northwest Branch stream valley and uop to the west stream bank. The dominant tree along this edge stand is Sycamore (Platanus occidentalis). Additional quantities of Tulip Poplar, Oak and Red Maple blend into this edge of the main stream valley stand. Much of this stand is underlaid with wet, swampy wetland areas. Standing water is frequent under the canopy of this stand.

The health of Stand F is good to excellent with some of the significant trees suffering moderate crown damage and some hollow trunk rot.

### STAND G Area = 0.84 acres

Stand G is located entirely on the subject property at the southern tip of the golf course, surrounded by maintained golf fairways. This stand averages about 100 feet wide and is 400 feet long. There is no clear dominant tree species. Eleven significant trees were tagged in this stand, including Red Maple, Red Oak, White Pine, Tulip Poplar, White Oak, Pin Oak and Hickory. None of these were in a frequency to indicate dominance in this stand. The understory is fairly open with only seedlings and a small number of invasive

### The health of Stand G is excellent.

STAND H Area = 4.42 acres

species present.

Stand H is along the southern property line adjacent to the Tivoli subdivision. This stand lies on a steep north facing slope and along the flatland adjacent to Bel Pre Creek. The stand is dominated by Tulip Poplar, with several very large specimen tagged along the stand edge. Significant trees were not tagged and identified in the interior of this stand since no forest disturbance is planned as part of the development proposal. Other species found in Stand H include Sycamore (especialy near the stream bank), White Oak, Red Oak and Maple. The understory varies, but is densist along the sunny northern edge adjacent to the golf course.

The health of Stand H is excellent.

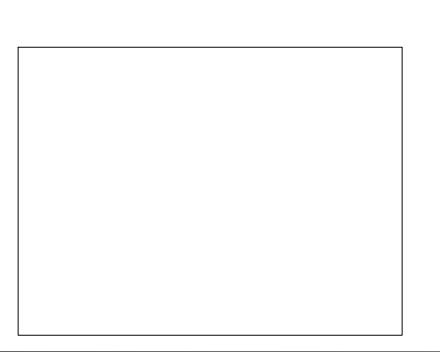
### STAND I Area = 1.03 acres

Stand I lies in the south-center of the property north of Bel Pre Creek. This stand is fairly narrow, ranging from 50 feet to 150 feet wide by about 500 feet long. This stand does not have a clear dominant species, but contains numbers of Sycamore, Maple, Tulip Poplar and Hickory in the 12" - 28" DBH size range. The understory is mostly dense, containing Multiflora Rose, seedlings, Rugosa Rose, Japanese Honeysuckle and a variety of shrub species.

The health of Stand I is excellent.







AMENDMENT #3 TO FINAL FCP

### POPLAR RUN (Formerly Known as Indian Spring)

Montgomery County, Maryland



DATE: 06.11.14 **Environmental** ESA JOB #: 03-04

SCALE: NTS

Systems DRAWING: 2003\04-Indian Spring\CAD Analysis, Inc. Drawings\Individual Drawings\Amend 3 Annapolis, Maryland 21401 SHEET: 13 of 13

Liriodendron tulipifera Liriodendron tulipifera

Liriodendron tulipifera

Liriodendron tulipifera

Liriodendron tulipifera

Liriodendron tulipifera Tulip Poplar

Quercus borealis

Fraxinus americana

Tulip Poplar

Tulip Poplar

Tulip Poplar

Tulip Poplar

White Ash