MCPB
Item No.
Date: 5-26-16

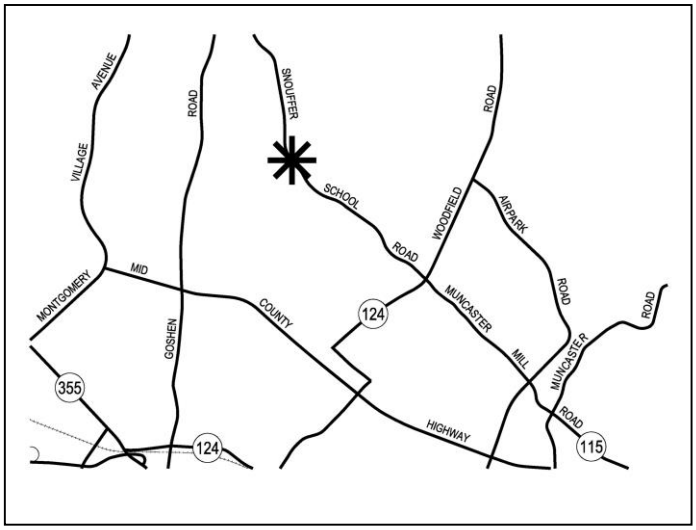
Snouffer School Road North (Webb Tract)
Part C: Preliminary Forest Conservation Plan, MR2014038

Amy Lindsey, Planner Coordinator, Area 2 Division, amy.lindsey@montgomeryplanning.org, 301.495.2189
Khalid Afzal, Supervisor, Area 2 Division, khalid.afzal@montgomeryplanning.org, 301.495.4650
Glenn Kreger, Chief, Area 2 Division, glenn.kreger@montgomeryplanning.org, 301.495.4653

Completed: 5/16/16

Description

- Request to approve a Preliminary Forest Conservation Plan (PFCP) to allow for the widening of Snouffer School Road and associated stream restoration;
- Snouffer School Road from Centerway Road to 1,600 feet south of Ridge Heights Drive;
- 5.33 acres, R-200 Zone;
- 1985 (Amended 1990) *Gaithersburg Vicinity Master Plan;*
- Applicant: Montgomery County Department of Transportation;
- Filing date: 3/23/2016.



Summary

- Staff recommends approval with conditions.
- Pursuant to Chapter 22A of the County Code, the Board's actions on Forest Conservation Plans are regulatory and binding.
- This is one of the three forest conservation plan actions associated with the Snouffer School Road North project, Mandatory Referral No. MR2014038.

Conditions

1. Prior to demolition, clearing, or grading, the Applicant must obtain approval of a Final Forest Conservation Plan from the Planning Department.
    a. The Final Forest Conservation Plan must be consistent with the approved Preliminary Forest Conservation Plan and reflect all requirements of COMCOR 22A.00.01.09.
    b. The Forest Conservation worksheet must show the correct net tract area and reforestation requirement.
    c. The Applicant must plant a minimum total of 18-caliper inches of native canopy trees as mitigation for the tree variance impacts on the Site within one calendar year or two growing seasons after completion of road construction. The trees must be a minimum of three-inch caliper each.
    d. The Final Forest Conservation Plan must show how the 1.30-acre reforestation requirement will be met.
    e. All areas of forest plantings must be outside of right-of-ways and utility easements.
    f. The Final Sediment Control Plan must be consistent with the limits of disturbance on the Final Forest Conservation Plan.

OVERVIEW

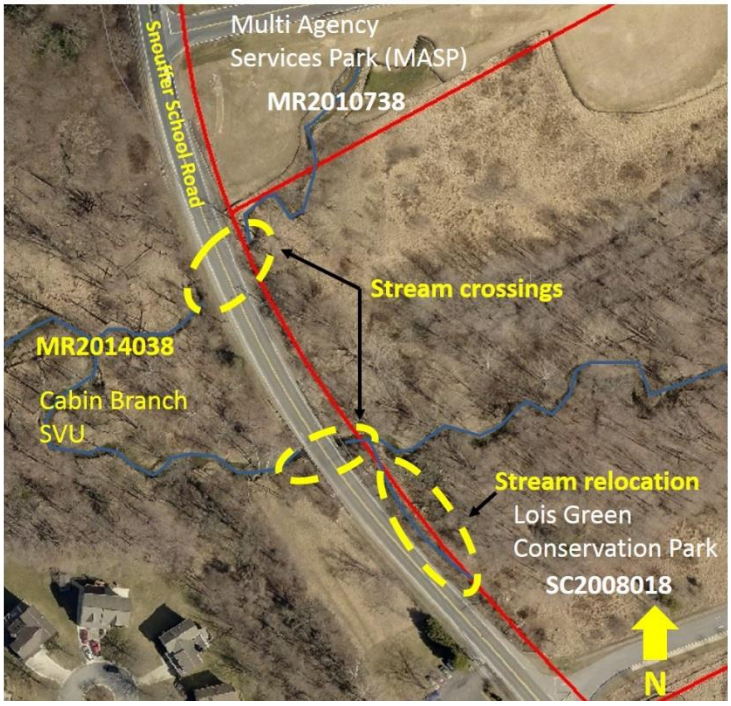
The 5.33-acre Site includes the balance of the disturbance for the Snouffer School Road North project that is not covered by either Lois Y. Green Conservation Park FCP (SC2008018) or Montgomery County Multi Agency Service Park FCP (MR2010738), presented concurrently in separate reports to the Planning Board. The Site is predominantly a linear area and comprises the Snouffer School Road right-of-way (ROW) and properties on the west side of the road, including a portion of Cabin Branch SVU. This plan includes stream restoration activities on Cabin Branch SVU.

ANALYSIS

Environmental Guidelines

Staff approved a Natural Resource Inventory/Forest Stand Delineation (NRI/FSD) (420140340) on April 1, 2015. The NRI/FSD covered a 35.36-acre area, which included 10.73 acres of high priority forest. It included Cabin Branch stream and multiple tributaries, wetlands, and floodplain. There is 15.46 acres of environmental buffer, including 13.06 acres of floodplain and 2.14 acres of wetlands.

The proposed Snouffer School Road North project will require major disturbance of the stream bed and banks in two locations in order to adequately bridge Cabin Branch stream and tributaries. A tributary within Lois Y. Green Conservation Park will be relocated, and the Applicant will restore approximately 1,483 linear feet of stream on Lois Y. Green Conservation Park and Cabin Branch SVU in order to mitigate for the environmental damage caused by the proposed project. With this mitigation, the proposed project will be in compliance with the Environmental Guidelines.



Forest Conservation

The Snouffer School Road North project is subject to the Montgomery County Forest Conservation Law (Chapter 22A of the County Code). The proposed Preliminary Forest Conservation Plan (PFCP) will allow for the widening of Snouffer School Road and the stream restoration on Cabin Branch SVU (Attachment 1) as described in the staff report for Mandatory Referral No. 2014038 presented concurrently with this project. The net tract area for this project (the Site) is the area within the limits of disturbance (LOD), therefore all forest on the Site will be cleared. There is 0.50 acres of forest clearing and a reforestation requirement of 1.30 acres, which can be met through on-site planting or off-site forest banking. The Applicant has submitted a planting plan showing individual tree plantings covering approximately 0.38 acres with this PFCP. The Final Forest Conservation Plan (FFCP) must show a corrected net tract area and the method of meeting the 1.30-acre reforestation requirement.

Forest Conservation Variance

Section 22A-12(b) (3) of the County Code provides criteria that identify certain individual trees as high priority for retention and protection. The law requires a variance for any impact, including removal or disturbance within the tree's critical root zone (CRZ), to trees that are: 30 inches or greater Diameter at Breast Height (DBH); part of a historic site or designated with a historic structure; designated as national, State, or County champion trees; at least 75 percent of the diameter of the current State champion tree of that species; or trees, shrubs and plants that are designated as Federal or State rare, threatened, or endangered species. An applicant for a variance must provide certain written information in support of the required findings in accordance with Section 22A-21 of the County Forest Conservation Law.

On February 2, 2016, the Applicant submitted a variance request for the impacts to high priority trees, a revised variance request on March 14, 2016, and a second revised variance request on April 12, 2016, to remove two trees, and impact, but retain, six trees that are considered high priority for retention under Section 22A-12 (b) (3) of the County Forest Conservation Law (Attachment 2).

Unwarranted Hardship for Variance Tree Impacts - Per Section 22A-21, a variance may only be granted if the Planning Board finds that leaving the high priority trees in an undisturbed state would result in unwarranted hardship. In this case, the unwarranted hardship is caused by the disturbance necessary

for the widening of Snouffer School Road and related stream restoration. The proposed design has taken into consideration the natural resources and significant trees, and access and grading have been designed to minimize forest and tree loss. The roadway and associated median have been reduced to the minimum width feasible for a divided road and bridge. Separation of the bridge is required due to a combination of clearance for flood conveyance and the 5 percent super-elevation of the bridge. Increasing the overall elevation of the bridge to an elevation sufficient to allow a single structure increases the height of bridge approaches, affecting site visibility near an intersection and increasing the width of fill required for side slopes, all of which increases the likelihood of additional impacts to wetlands, wetland buffers, forest stands, or other specimen candidate trees as well as increasing construction cost.

Variance Tree Tables

Removals

ID	Species	Size (DBH)	Condition	Notes
7	Red oak	40.5"	Fair	Stream restoration and road grading.
12	Red maple	30.5"	Fair	Stream restoration and road grading.

Impacts

ID	Species	Size (DBH)	Condition	Notes
15	Tulip poplar	43.0"	Poor	Stream restoration.
16	Tulip poplar	40.0"	Fair	Stream restoration.
17	Tulip poplar	37.5"	Fair	Stream restoration and road grading.
20	Tulip poplar	39.5"	Poor	Minor road grading.
30	Korean pine	30.0"	Good	Minor road grading.
32	Korean pine	30.0"	Good	Minor road grading.

Variance Findings - Based on the review of the variance request and the proposed Preliminary Forest Conservation Plan, staff makes the following findings:

1. *Granting the variance will not confer on the applicant a special privilege that would be denied to other applicants.*

   The disturbance to the specified trees is a result of the need to widen Snouffer School Road and restore Cabin Branch. The Applicant will not be able to do either activity without disturbing the listed trees. Granting this variance request is not a special privilege that would be denied to other applicants.

2. *The need for the variance is not based on conditions or circumstances which are the result of the actions by the Applicant.*

   The requested variance is not based on conditions or circumstances which are the result of actions by the Applicant. The variance is based on the location of the trees next to the road and stream. Disturbance has been minimized by sensitively siting the access for the stream restoration activities.

3. *The need for the variance is not based on a condition relating to land or building use, either permitted or non-conforming, on a neighboring property.*

   The requested variance is a result of the road widening and stream restoration and construction, and not a result of land or building use on a neighboring property.

4. *Granting the variance will not violate State water quality standards or cause measurable degradation in water quality.*

   The proposed project should improve water quality by restoring the stream channel and providing bank stabilization. Additionally, the new trees proposed as mitigation for the loss of specimen trees will enhance the form and function of the existing tree canopy. Trees protect water quality by reducing runoff through rainfall interception and water uptake. The trees also provide shade for impervious areas and improve soil texture, which also results in improved water quality.

Mitigation for Trees Subject to the Variance Provisions – Generally, mitigation is recommended for trees removed but not for trees impacted but retained. The proposed removal of two trees will be mitigated by additional plantings. Mitigation planting is calculated at the rate of 1 caliper inch planted per 4" inch DBH lost. Using this ratio, the Applicant will be required to plant a total of 18 caliper inches of native canopy trees as mitigation for the tree variance impacts on the Site within one calendar year or two growing seasons after completion of road construction. The trees must be a minimum of three-inch caliper each.

County Arborist's Recommendation on the Variance - In accordance with Montgomery County Code Section 22A-21(c), the Planning Department is required to refer a copy of the variance request to the County Arborist in the Montgomery County Department of Environmental Protection for a recommendation prior to acting on the request. Staff forwarded the request to the County Arborist on 4/19/2016. A response letter has not been received at time of staff report posting.

Variance Recommendation – Staff recommends the variance be granted.

Conclusion

Staff recommends that the Planning Board approve the PFCP with the conditions stated above. The variance approval is assumed into the Planning Board's approval of the PFCP.

ATTACHMENTS:

1. Preliminary Forest Conservation Plan
2. Variance Request

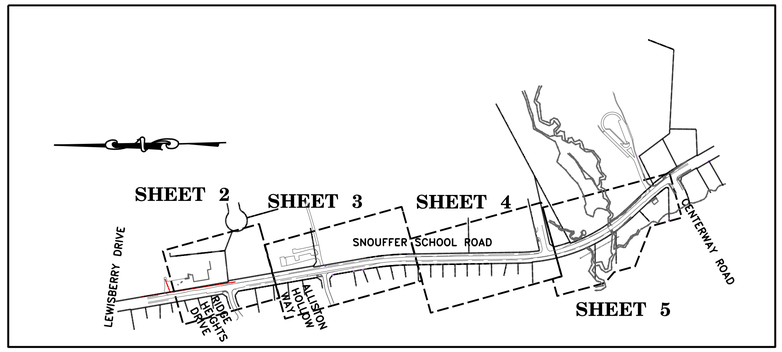
ATTACHMENT 1

MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION

SNOUFFER SCHOOL ROAD

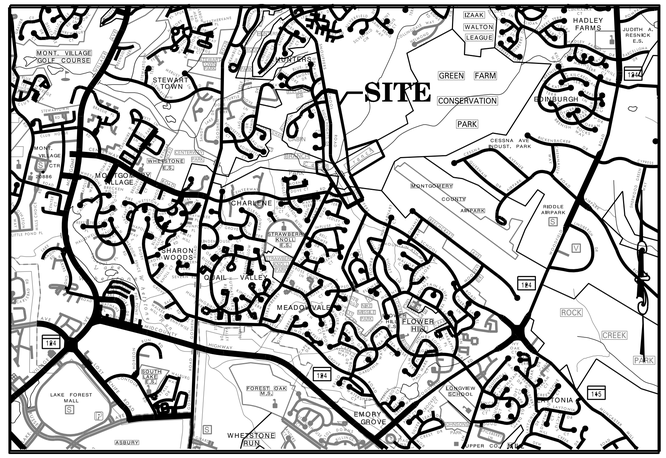
ROAD IMPROVEMENTS

CIP PROJECT NO.: 501119



SNOUFFER SCHOOL ROAD – CENTERWAY ROAD TO ALLISTON HOLLOW WAY

SCALE: 1" = 500'



VICINITY MAP
NOT TO SCALE

NOTES

PLAN NOTES:
WSSC GRID: 226NW08, 226NW09, 227NW09
TAXMAP GRID: N/A
TOTAL TRACT AREA: 5.33 AC (WITHIN THE LOD)
CURRENT ZONING: WITHIN LOD: INDUSTRIAL
IN PROJECT AREA: INDUSTRIAL TO THE WEST, RESIDENTIAL SINGLE FAMILY TO EAST AND PARK LAND ON EITHER SIDE OF CABIN BRANCH
WATERSHED: MIDDLE GREAT SENECA CREEK GSCB 207 FAIR
USE CLASS OF STREAM: I-P
WETLANDS: YES, ASSOCIATED WITH CABIN BRANCH; FROM FIELD SURVEY
FLOOD PLAIN: FROM FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) PANEL NO. 0191D; APPROVED SEPT 29, 2006
SPECIAL PROTECTION AREA: NOT WITHIN SPA
RARE THREATENED OR ENDANGERED SPECIES: NONE: RESPONSES REC'D. MD DNR WILDLIFE 2/28/2012, MD DNR FISHERIES 3/1/2012, AND USDA 1/27/2013
HISTORIC SITES: NONE IDENTIFIED WITHIN THE PROJECT AREA
(http://www.montgomeryplanning.org/gis/interactive/historic.shtm)
TREE MEASURING DEVICE USED: DIAMETER TAPE
CHAMPION TREES: NONE
DATE FIELD WORK CONDUCTED: OCTOBER 10, 2011, AUGUST 12, 2013 & OCTOBER 3, 2014
WORK CONDUCTED BY: DAVID MERKEY & CAROL PERFIT

FOREST STAND DATA

FOREST CONSERVATION WORKSHEET
Snouffer School Road

5-Aug-02

NET TRACT AREA:

A. Total tract area ...	5.33
B. Land dedication acres (parks, county facility, etc.) ...	5.33
C. Land dedication for roads or utilities (not being constructed by this plan) ...	0.00
D. Area to remain in commercial agricultural production/use ...	0.00
E. Other deductions (specify)	0.00
F. Net Tract Area .....=	0.00

LAND USE CATEGORY: (from *Trees Technical Manual*)
Input the number "1" under the appropriate land use, limit to only one entry.

ARA	MDR	IDA	HDR	MPD	CIA
0	0	0	1	0	0

G. Afforestation Threshold ...	15% x F =	0.00
H. Conservation Threshold ...	20% x F =	0.00

EXISTING FOREST COVER:

I. Existing forest cover .....=	0.50
J. Area of forest above afforestation threshold .....=	0.50
K. Area of forest above conservation threshold .....=	0.50

BREAK EVEN POINT:

L. Forest retention above threshold with no mitigation ....=	0.10
M. Clearing permitted without mitigation .....=	0.40

PROPOSED FOREST CLEARING:

N. Total area of forest to be cleared .....=	0.50
O. Total area of forest to be retained .....=	0.00

PLANTING REQUIREMENTS:

P. Reforestation for clearing above conservation threshold ....=	0.13
Q. Reforestation for clearing below conservation threshold ....=	0.00
R. Credit for retention above conservation threshold .....=	0.00
S. Total reforestation required .....=	0.13
T. Total afforestation required .....=	0.00
U. Credit for landscaping (may not exceed 20% of "S") .....=	0.00
V. Total reforestation and afforestation required .....=	0.13

	Forest Data Table (within LOD)
5.33	acreage of tract
0	acreage of tract remaining part of agricultural use
0	acreage of road and utility rights-of-way which will not be improved as part of the development application
0.5	acreage of total existing forest
0	acreage of total forest retention
0.5	acreage of total forest cleared
CIA	land use category and conservation and afforestation thresholds (subsection 22A-12(a))
0.00	conservation thresholds (subsection 22A-12(a))
0.00	afforestation thresholds (subsection 22A-12(a))
0.00	acreage of forest retained within 100-yr. floodplains
0.43	acreage of forest cleared within 100-yr. floodplains
0.35	acreage of forest planted within 100-yr. floodplains
0.00	acreage of forest retained within stream buffer
0.5	acreage of forest cleared within stream buffer
0.38	acreage of forest planted within stream buffer
0.00	acreage of forest retained within wetlands
0	acreage of forest cleared within wetlands
0	acreage of forest planted within wetlands
0	acreage of forest retained within priority areas
0.5	acreage of forest cleared within priority areas
0.38	acreage of forest planted within priority areas
1,328	linear feet of stream buffer
175	average width of stream buffer

MONTGOMERY COUNTY PLANNING DEPARTMENT
THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

April 1, 2015

Holger Serrano
Montgomery County Department of Transportation
100 Edison Park Dr
Gaithersburg, MD 20878

Dear Mr. Serrano:

This letter is to inform you that Natural Resource Inventory/Forest Stand Delineation (NRI/FSD) 420140340, Snouffer School Road Improvements, is approved. A forest conservation plan can now be submitted to the Development Activity and Regulatory Coordination Division. Please note that properties shown on this plan are subject to approved Forest Conservation Plans, which must be amended as part of the planning and approval process. These plans include 120040180 and SC2008018.

Since the property is subject to the Montgomery County Forest Conservation law, there shall be no clearing of forest, understory, or tree removal on the subject site prior to the approval of a final forest conservation plan. If there are any subsequent modifications to the approved plan, not including changes initiated by a government agency, a separate amendment must be submitted to M-NCPPC for review and approval prior to the submission of a forest conservation plan.

If you have any questions regarding these actions, please feel free to contact Amy Lindsey at (301)495-2189.

Sincerely,

X

Signed by: Amy.Lindsey

Amy Lindsey, Area 2 Planner

cc: 420140340
dmerkey@gpinet.com

8787 Georgia Avenue, Silver Spring, Maryland 20910 Environmental Planning: 301.495.4540 Fax: 301.495.1310
www.MongtomeryPlanning.org

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SURVEY LEGEND

- BUILDING
- 345 EXISTING CONTOUR
- 30.05 SPOT ELEVATION
- PROPERTY LINE
- CHAIN LINK FENCE
- WOOD FENCE
- CURB & GUTTER
- TREELINE
- LOD — LOD LIMIT OF DISTURBANCE
- SPECIMEN TREE DBH > 30"
- TREE WITH DBH 24"-29"

FCP LEGEND

- 18 TC SOIL BOUNDARY AND LABELS
- PROPERTY BOUNDARY
- FOREST STAND
- TREE COVER
- WUS WATERS OF THE US - PERENNIAL
- FEMA FP FEMA FLOODPLAIN
- STREAM VALLEY BUFFER
- WETLAND
- WETLAND BUFFER
- BRL BUILDING RESTRICTION LINE
- WUS IN WATERS OF THE US - INTERMITTENT
- WUS EP WATERS OF THE US - EPHEMERAL
- TREE WITH CRITICAL ROOT ZONE
- SIGNIFICANT TREE TO BE REMOVED••
- TPF TREE PROTECTION FENCE
- RP ROOT PRUNING
- 12" MULCH MAT
- FOREST STAND TO BE REMOVED

•• SIGNIFICANT TREES MARKED FOR REMOVAL WILL BE EVALUATED BY MNCPPC AND COUNTY ARBORISTS TO DETERMINE RETENTION POTENTIAL.

SPECIMEN TREE MITIGATION

CALIPER OF REMOVED TREES = 71 INCHES
CALIPER OF REQUIRED TREE REPLACEMENT = 18 INCHES

CERTIFICATION

I CERTIFY THAT I AM A DULY QUALIFIED PROFESSIONAL UNDER THE LAWS OF THE STATE OF MARYLAND, AND THAT THESE DOCUMENTS WERE PREPARED UNDER MY SUPERVISION AND IN COMPLIANCE WITH THE FOREST CONSERVATION LAW REQUIREMENTS.

DAVID MERKEY PhD, QUALIFIED PROFESSIONAL
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EMAIL: DMERKEY@GPINET.COM

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Transportation Planning & Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: GPI Drawn by: GPI Checked by: GPI

SNOUFFER SCHOOL ROAD
FOREST CONSERVATION PLAN
TITLE SHEET

SCALE : AS SHOWN

Project No. : SHEET 1 of 6

FILE: N:\2008\2008037\2008037.00\2008037.00 Tsk 110 Snouffer Road\DGN\pTI-0001_SNOUFFER.dgn
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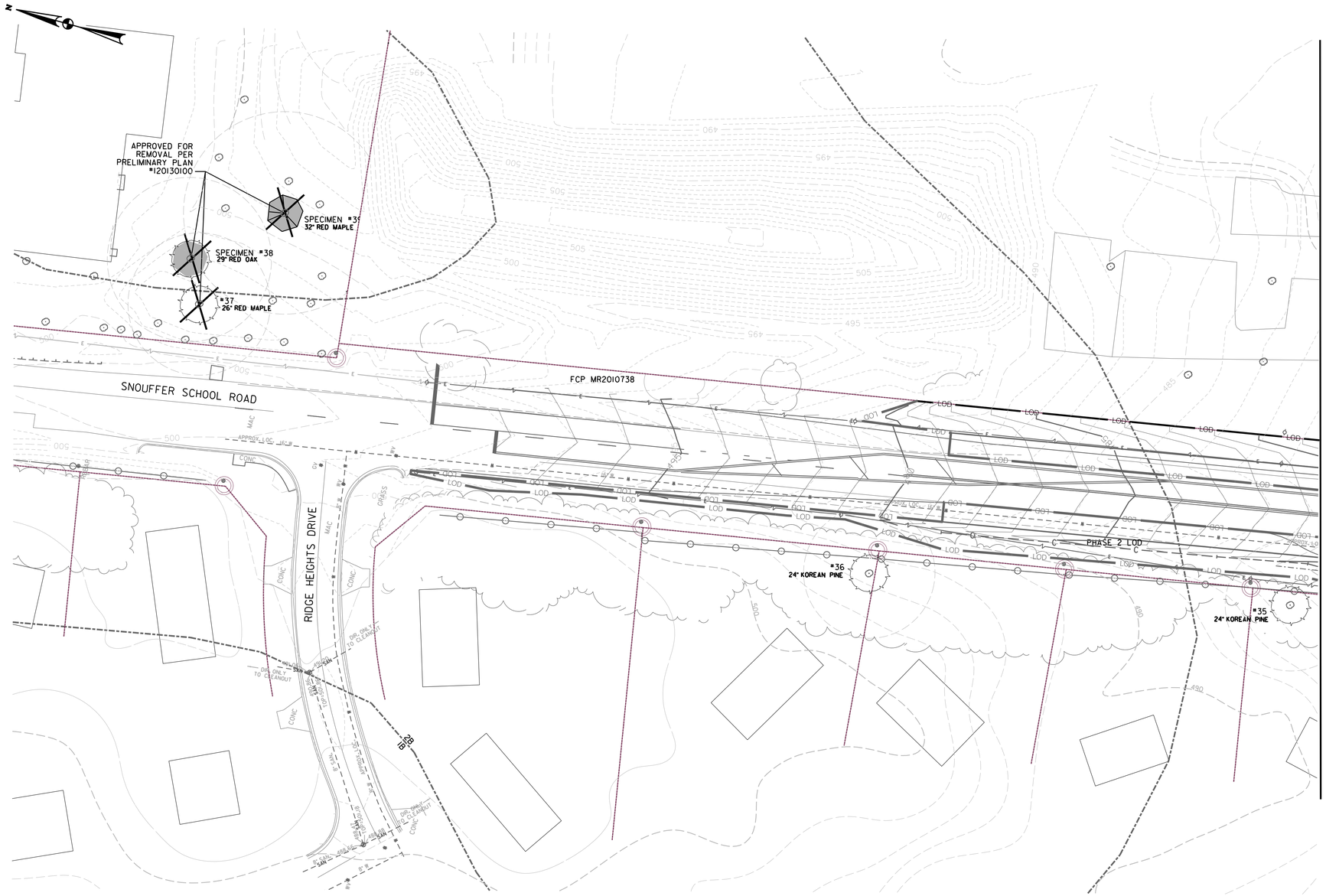

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DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

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Chief, Transportation Planning & Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: GPI Drawn by: GPI Checked by: GPI

SNOUFFER SCHOOL ROAD
FCP
SHEET TWO

SCALE : AS SHOWN

Project No. : SHEET 2 of 6

FILE: N:\2008\2008037\2008037.00\2008037.00 Tsk 110 Snouffer Road\DGN\pFC-0001_snou.dgn
DATE: Monday, April 11, 2016 AT 02:39 PM

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GAITHERSBURG, MARYLAND

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Chief, Transportation Planning & Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: GPI Drawn by: GPI Checked by: GPI

SNOUFFER SCHOOL ROAD
FCP
SHEET THREE

SCALE : AS SHOWN

Project No. : SHEET 3 of 6

FILE: N:\2008\2008037\2008037.00\2008037.00 Tsk 110 Snouffer Road\DGN\pFC-0002_snou.dgn
DATE: Monday, April 11, 2016 AT 02:38 PM

MATCH LINE SHEET 3

MATCH LINE SHEET 5

MONTGOMERY COUNTY
38122/36

SNOUFFER SCHOOL ROAD

PHASE 2 LOD

FCP MR2010738 AMENDMENT

TURKEY THICKET DRIVE

MONTGOMERY COUNTY
38122/36
PARCEL A

M-NCPPC
FCP #SC2008018
AMENDMENT

SPECIMEN #30
30" KOREAN PINE

#29
24" KOREAN PINE

#28
28" TULIP POPLAR

FOREST STAND 2 LIMITS

HUNTER WOODS

M-NCPPC

#21
25" TULIP POPLAR

#22
26.5" RED OAK

0.05AC FOREST
STANDREMOVED

SPECIMEN #7
40.5" RED OAK

0.04AC FOREST
STANDREMOVED

SPECIMEN #20
39.5" TULIP POPLAR

SPECIMEN #19
34.5" TULIP POPLAR

SPECIMEN #8
33.5" TULIP POPLAR

SPECIMEN #23
30.5" RED MAPLE

#18
29.5" RED OAK

SPECIMEN #11
40" TULIP POPLAR

SPECIMEN #10
37" TULIP POPLAR

SPECIMEN #17
37.5" TULIP POPLAR

SPECIMEN #9
37" TULIP POPLAR

SPECIMEN #16
40" TULIP POPLAR

OPEN ENDED FOREST STAND

SPECIMEN #24
41.5" TULIP POPLAR

#25
29.5" TULIP POPLAR

#26
29" TULIP POPLAR

SPECIMEN #27
32.5" TULIP POPLAR

SPECIMEN #76
44" TULIP POPLAR

30 15 0 30 60
SCALE: 1"= 30'

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MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Transportation Planning & Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: GPI Drawn by: GPI Checked by: GPI

SNOUFFER SCHOOL ROAD
FCP
SHEET FOUR

SCALE : AS SHOWN

Project No. : SHEET 4 of 6

FILE: N:\2008\2008037\2008037.00\2008037.00 Tsk 110 Snouffer Road\DGN\pFC-0003_snou.dgn
DATE: Monday, April 11, 2016 AT 02:35 PM

MATCH LINE SHEET 4

M-NCPPC
FCP #SC2008018 AMENDMENT

SNOUFFER SCHOOL ROAD

CENTERWAY ROAD

MICHAEL ROGEWITZ
39600/16

#83
24" SILVER MAPLE

#13
26.5" RED MAPLE

SPECIMEN #12
30.5" RED MAPLE

#14
24" RED MAPLE

.41 AC FOREST
STAND REMOVED

M-NCPPC

QUAIL VALLEY

SPECIMEN #15
43" TULIP POPLAR

SPECIMEN #82
34" RED MAPLE

SPECIMEN #81
31" RED MAPLE

28" SWAMP WHITE OAK #74

24" RED MAPLE #80

25" RED MAPLE #79

27" RED MAPLE #78

29" TULIP POPLAR #77

30 15 0 30 60
SCALE: 1"= 30'

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Chief, Transportation Planning & Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: GPI Drawn by: GPI Checked by: GPI

SNOUFFER SCHOOL ROAD FCP

SHEET FIVE

SCALE : AS SHOWN

Project No. : SHEET 5 of 6

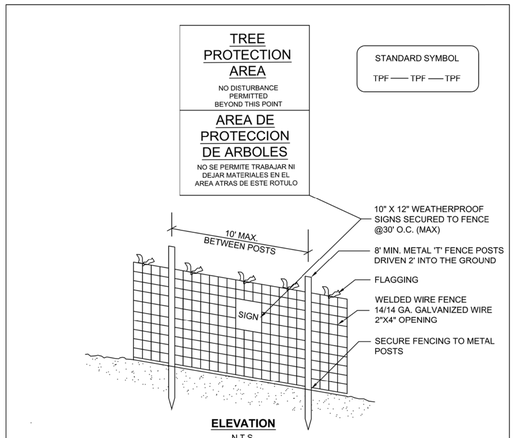
GPI GREENMAN-PEDERSEN, INC.
ENGINEERS, ARCHITECTS, PLANNERS, CONSTRUCTION ENGINEERS & INSPECTORS
10977 GUILFORD RD., ANNAPOLIS JUNCTION, MD. 20701
WASH. (301) 470-2772 BALT. (410) 880-3055
FAX: (301) 490-2649 www.gpinet.com

FILE: N:\2008\2008037\2008037.00\2008037.00 Tsk 110 Snouffer Road\DGN\pFC-0004_snou.dgn
DATE: Monday, April 11, 2016 AT 02:37 PM

TREES GREATER THAN OR EQUAL TO 24" DBH

Tree number	Size DBH	Forest Stand	Common name	*Scientific name*	Condition	CRZ Impact	Status
1	**35.9**	**N/A**	**White Mulberry**	**Morus alba**	**Fair**	**0.00%**	Save
2	**Removed**						
3	**Removed**						
7	**40.5**	**2**	**Red Oak**	***Quercus rubra***	**Fair**	**48.00%**	**Remove**
8	**33.5**	**2**	**Tulip poplar**	***Liriodendron tulipifera***	**Fair**	**0.00%**	**Save**
9	**37.0**	**2**	**Tulip poplar**	***Liriodendron tulipifera***	**Good**	**0.00%**	**Save**
10	**37.0**	**2**	**Tulip poplar**	***Liriodendron tulipifera***	**Poor**	**0.00%**	**Save**
11	**40.0**	**2**	**Tulip poplar**	***Liriodendron tulipifera***	**Poor**	**0.00%**	**Save**
12	**30.5**	**3**	**Red Maple**	***Acer rubrum***	**Fair**	**68.00%**	**Remove**
13	26.5	3	Red Maple	*Acer rubrum*	Fair	100.00%	Remove
14	24.0	3	Red Maple	*Acer rubrum*	Fair	100.00%	Remove
15	**43.0**	**3**	**Tulip poplar**	***Liriodendron tulipifera***	**Poor**	**8.00%**	**Save**
16	**40.0**	**3**	**Tulip poplar**	***Liriodendron tulipifera***	**Fair**	**8.00%**	**Save**
17	**37.5**	**2**	**Tulip poplar**	***Liriodendron tulipifera***	**Fair**	17.00%	Save
18	29.5	2	Red Oak	*Quercus rubra*	Fair	9.00%	Save
19	**34.5**	**2**	**Tulip poplar**	***Liriodendron tulipifera***	**Poor**	**0.00%**	**Save**
20	**39.5**	**2**	**Tulip poplar**	***Liriodendron tulipifera***	**Poor**	**2.25%**	**Save**
21	25.0	2	Tulip poplar	*Liriodendron tulipifera*	Fair	0.00%	Save
22	26.5	2	Red Oak	*Quercus rubra*	Fair	0.00%	Save
23	**30.5**	**2**	**Red Maple**	***Acer rubrum***	**Poor**	**0.00%**	**Save**
24	**41.5**	**2**	**Tulip poplar**	***Liriodendron tulipifera***	**Good**	0.00%	Save
25	29.5	2	Tulip poplar	*Liriodendron tulipifera*	Good	0.00%	Save
26	29.0	2	Tulip poplar	*Liriodendron tulipifera*	Fair	0.00%	Save
27	**32.5**	**2**	**Tulip poplar**	***Liriodendron tulipifera***	**Fair**	**0.00%**	**Save**
28	28.0	2	Tulip poplar	*Liriodendron tulipifera*	Good	52.17%	Remove
29	24.0	N/A	Korean Pine	*Pinus koraiensis*	Good	8.79%	Save
30	**30.0**	**N/A**	**Korean Pine**	***Pinus koraiensis***	**Good**	**7.94%**	**Save**
31	28.0	N/A	Korean Pine	*Pinus koraiensis*	Good	26.38%	Save
32	**30.0**	**N/A**	**Korean Pine**	***Pinus koraiensis***	**Good**	**23.75%**	**Save**
33	28.0	N/A	Korean Pine	*Pinus koraiensis*	Good	14.22%	Save
34	28.0	N/A	Korean Pine	*Pinus koraiensis*	Good	7.38%	Save
35	24.0	N/A	Korean Pine	*Pinus koraiensis*	Good	11.86%	Save
36	24.0	N/A	Korean Pine	*Pinus koraiensis*	Good	0.00%	Save
37	26.0	N/A	Red Maple	*Acer rubrum*	Excellent	0.00%	Save
38	**29.0**	N/A	**Red Oak**	***Quercus rubra***	**Good**	**0.00%**	**Save**
39	**32.0**	**N/A**	**Red Maple**	***Acer rubrum***	**Fair**	**0.00%**	**Save**
74	28	3	Swamp White Oak	*Quercus bicolor*	Good	0.00%	Save
75	**58**	**3**	**Tulip poplar**	***Liriodendron tulipifera***	**Good**	**0.00%**	**Save**
76	**44**	**2**	**Tulip poplar**	***Liriodendron tulipifera***	**Fair**	**0.00%**	**Save**
77	29	3	Tulip poplar	*Liriodendron tulipifera*	Excellent	0.00%	Save
78	27	3	Red Maple	*Acer rubrum*	Fair	0.00%	Save
79	25	3	Red Maple	*Acer rubrum*	Poor	0.00%	Save
80	24	3	Red Maple	*Acer rubrum*	Poor	0.00%	Save
81	**31**	**3**	**Red Maple**	***Acer rubrum***	**Good**	**0.00%**	**Save**
82	**34**	**3**	**Red Maple**	***Acer rubrum***	**Poor**	**0.00%**	**Save**
83	24-28-18	N/A	Silver Maple	*Acer saccharinum*	Good	37.00%	Remove

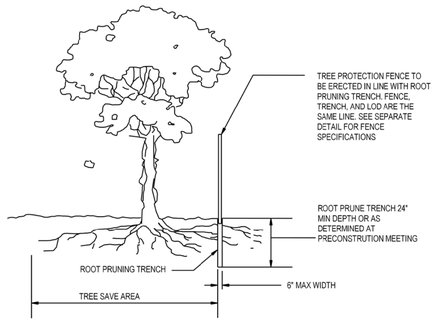
NOTE: SPECIMEN TREES IN BOLD.



NOTES:

1. PRACTICE MAY BE COMBINED WITH SEDIMENT CONTROL FENCING.
2. LOCATION AND LIMITS OF FENCING SHALL BE COORDINATED IN FIELD WITH ARBORIST.
3. BOUNDARIES OF PROTECTION AREA SHOULD BE STAKED PRIOR TO INSTALLING PROTECTIVE DEVICE.
4. ROOT DAMAGE SHOULD BE AVOIDED.
5. PROTECTIVE SIGNAGE IS REQUIRED.
6. FENCING SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.

TREE PROTECTION FENCE
The Maryland-National Capital Park and Planning Commission
Montgomery County Department of Parks
Detail No.
JUNE 2007



NOTES:
1. RETENTION AREAS WILL BE SET AS PART OF THE REVIEW PROCESS AND PRECONSTRUCTION MEETING.
2. BOUNDARIES OF RETENTION AREAS MUST BE STAKED AT THE PRECONSTRUCTION MEETING AND FLAGGED PRIOR TO TRENCHING.
3. EXACT LOCATION OF TRENCH SHALL BE DETERMINED IN THE FIELD IN COORDINATION WITH THE FOREST CONSERVATION (FC) INPECTOR .
4. TRENCH SHOULD BE IMMEDIATELY BACKFILLED WITH EXCAVATED SOIL OR OTHER ORGANIC SOIL AS SPECIFIED PER PLAN OR BY THE FC INSPECTOR.
5. ROOTS SHALL BE CLEANLY CUT USING VIBRATORY KNIFE OR OTHER ACCEPTABLE EQUIPMENT.
6. ALL PRUNING MUST BE EXECUTED WITH LOD SHOWN ON PLANS OR AS AUTHORIZED IN WRITING BY THE FC INSPECTOR.

ROOT PRUNING DETAIL
NTS

INSPECTIONS

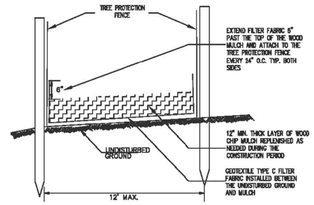
All field inspections must be requested by the applicant. Inspections must be conducted as follows:

Tree Save Plans and Forest Conservation Plans without Planting Requirements

1. After the limits of disturbance have been staked and flagged, but before any clearing or grading begins
2. After necessary stress reduction measures have been completed and protection measures have been installed, but before any clearing and grading begin.
3. After completion of all construction activities, but before removal of tree protection fencing, to determine the level of compliance with the provision of the forest conservation.

Additional Requirements for Plans with Planting Requirements

4. Before the start of any required reforestation and afforestation planting
5. After the required reforestation and afforestation planting has been completed to verify that the planting is acceptable and prior to the start the maintenance period.
6. At the end of the maintenance period to determine the level of compliance with the provisions of the planting plan, and if appropriate, release of the performance bond.



NOTES:
1. ACCESS ROUTES TO BE FIELD LOCATED WITH M-NCPPC AND MCDPS AT PRE-CONSTRUCTION MEETING.
2. FILTER FABRIC SHALL BE A SINGLE PIECE ACROSS WIDTH. OVERLAP FABRIC BY 18" MIN. ALONG LENGTH OF ROUTE.
3. FILTER FABRIC MAY ONLY BE ELIMINATED AT DIRECTION OF M-NCPPC ARBORIST.
4. CONTRACTOR SHALL MAINTAIN MULCH MAT THROUGHOUT CONSTRUCTION PERIOD. MULCH SHALL BE DISPOSED OF OFF-SITE UNLESS OTHERWISE APPROVED BY M-NCPPC.

MULCH MAT DETAIL
NOT TO SCALE

Sequence of Events for Property Owners Required to Comply With Forest Conservation and/or Tree-Save Plans

Pre-Construction

1. An on-site pre-construction meeting is required after the limits of disturbance have been staked and flagged, but before any clearing or grading begins. The property owner should contact the Montgomery County Planning Department inspection staff before construction to verify the limits of disturbance and discuss tree protection and tree care measures. The developer's representative, construction superintendent, ISA certified arborist or Maryland-licensed tree expert that will implement the tree protection measures, forest conservation inspector, and Department of Permitting Services (DPS) sediment control inspector should attend this pre-construction meeting.

2. No clearing or grading shall begin before stress-reduction measures have been implemented. Appropriate measures may include, but are not limited to:
   a. Root pruning
   b. Crown reduction or pruning
   c. Watering
   d. Fertilizing
   e. Vertical mulching
   f. Root aeration matting

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

3. A 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 forest conservation inspector or sent to the inspector at 8787 Georgia Avenue, Silver Spring, MD 20910. The forest conservation inspector will determine the exact method to convey the stress reductions measures during the pre-construction meeting.

4. Temporary tree protection devices shall be installed per the Forest Conservation Plan/Tree Save Plan and prior to any construction activities. Tree protection fencing locations should be staked prior to the pre-construction meeting. The forest conservation 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 protect devices may include:
   a. Chain link fence (four feet high)
   b. Super silt fence with wire strung between support poles (minimum 4 feet high) with high visibility flagging.
   c. 14 gauge 2 inch x 4 inch welded wire fencing supported by steel T-bar posts (minimum 4 feet high) with high visibility flagging.

5. 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 the forest conservation inspector. 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 forest conservation inspector.

6. Forest retention area signs shall be installed as required by the forest conservation inspector, or as shown on the approved plan.

7. Long-term protection devices will be installed per the Forest Conservation Plan/Tree Save 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.

During Construction

8. Periodic inspections by the forest conservation inspector will occur during the construction project. Corrections and repairs to all tree protection devices, as determined by the forest conservation inspector, must be made within the timeframe established by the inspector.

Post-Construction

9. After construction is completed, an inspection shall be requested. Corrective measures may include:
   a. Removal and replacement of dead and dying trees
   b. Pruning of dead or declining limbs
   c. Soil aeration
   d. Fertilization
   e. Watering
   f. Wound repair
   g. Clean up of retention areas

10. After inspection and completion of corrective measures have been undertaken, all temporary protection devices shall be removed from the site. Removal of tree protection devices that also operate for erosion and sediment control must be coordinated with both the Department of Permitting Services and the forest conservation inspector. No additional grading, sodding, or burial may take place after the tree protection fencing is removed.

CERTIFICATION

I CERTIFY THAT I AM A DULY QUALIFIED PROFESSIONAL UNDER THE LAWS OF THE STATE OF MARYLAND, AND THAT THESE DOCUMENTS WERE PREPARED UNDER MY SUPERVISION AND IN COMPLIANCE WITH THE FOREST CONSERVATION LAW REQUIREMENTS.

DAVID MERKEY Phd, QUALIFIED PROFESSIONAL
ADDRESS: 10977 GUILFORD ROAD, ANNAPOLIS JUNCTION, MD 20701
PHONE: (410) 880-3055
EMAIL: DMERKEY@GPINET.COM

GPI GREENMAN-PEDERSEN, INC.
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FAX: (301) 490-2649 www.gpinet.com

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL
Chief, Transportation Planning & Design Section — Date
APPROVED
Chief, Division of Transportation Engineering — Date

Designed by: GPI Drawn by: GPI Checked by: GPI

SNOUFFER SCHOOL ROAD

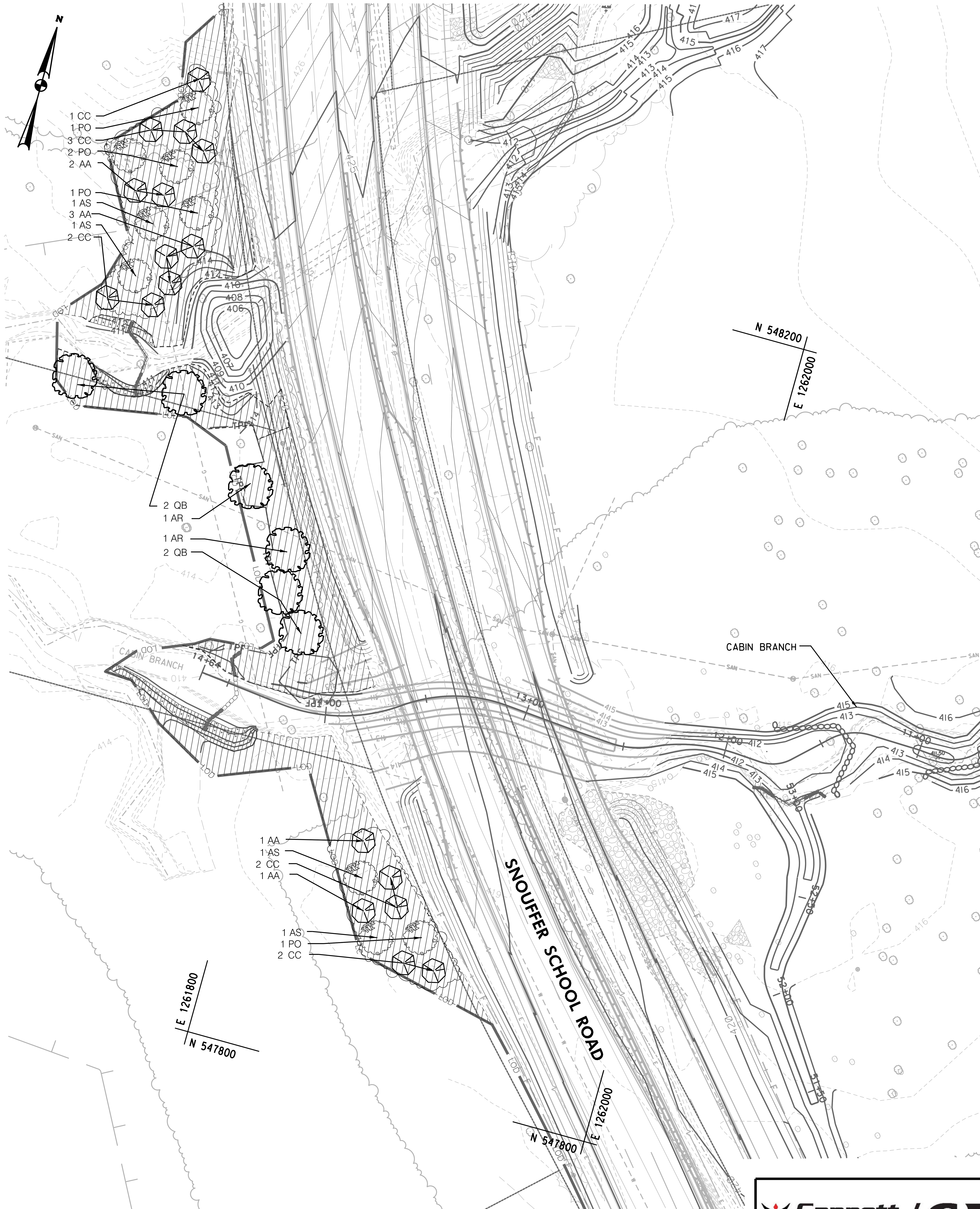
FOREST CONSERVATION PLAN

DETAIL SHEET

SCALE : AS SHOWN

Project No. : SHEET 6 of 6

FILE: N:\2008\2008037\2008037.00\2008037.00 Tsk 110 Snouffer Road\DGN\pFC-DT01_2008018snou.dgn
DATE: Monday, April 11, 2016 AT 05:25 PM



SNOUFFER SCHOOL ROAD STREAM RESTORATION PLANT LIST

FORM	SYMBOL	QUANTITY	SCIENTIFIC NAME	COMMON NAME	SIZE	NOTES
Live Stakes		110	*Sambucus nigra ssp. canadensis*	Common Elderberry	0.5-1" dia., 3.0'min. long	2' OC
Live Stakes		110	*Salix sericea*	Silky Willow	0.5-1" dia., 3.0'min. long	2' OC
Tree	AS	5	*Acer saccharinum*	Silver Maple	2" Cal.	15' OC
Tree	PO	4	*Platanus occidentalis*	Sycamore	2" Cal.	15' OC
Tree (Variance Mitigation)	AR	2	*Acer rubrum*	Red Maple	3" Cal.	20' OC
Tree (Variance Mitigation)	QB	4	*Quercus bicolor*	Swamp White Oak	3" Cal.	20' OC
Tree	CC	10	*Cercis canadensis*	Redbud	1" Cal.	12' OC
Tree	AA	7	*Amelanchier arborea*	Downy serviceberry	Multi-stem 6-8' Ht.	12' OC
Floodplain Seed Mix						
			Elymus virginicus	Virginia Wild Rye		20%
			Elymus riparius	Riparian Wild Rye		20%
		2041 SY	*Dichanthelium clandestinum*	Deer Tongue		20%
			Elymus histrix	Bottle-Brush		20%
			Tridens flavus	Purple Top		20%

VARIANCE MITIGATION

TREES REMOVED	2
TOTAL DBH	71 IN.
MITIGATION %	0.25
TOTAL DBH REQUIRED	18 IN.

TOTAL REPLACED6 @ 3 IN. CAL = 18 IN.

LEGEND

- EXISTING CONTOUR
- 50 PROPOSED CONTOUR
- EXISTING TREE TO BE REMOVED
- PROPOSED ROCK SILL
- PROPOSED J-HOOK
- PROPOSED CROSS VANE
- FLOODPLAIN SEEDING
- LIVE STAKE PLANTING
- 3" CAL. TREE TO MEET MITIGATION
- 2" CAL. OVERSTORY TREE
- 1" CAL. UNDERSTORY TREE

30' 0 30' 60'
SCALE: 1" = 30'

MCDPS APPROVED FOR:

STORMWATER MANAGEMENT:

REVIEWED DATE

APPROVED DATE

SM FILE #

SEDIMENT CONTROL TECHNICAL REQUIREMENTS:

REVIEWED DATE

APPROVED DATE

ADMINISTRATIVE REQUIREMENTS:

REVIEWED DATE

SEDIMENT CONTROL PERMIT #

NOTE

MCDPS APPROVAL OF THIS PLAN WILL EXPIRE TWO YEARS FROM THE DATE OF APPROVAL IF THE PROJECT HAS NOT STARTED.

THIS APPROVAL DOES NOT NEGATE THE NEED FOR A MCDPS ACCESS PERMIT.

DPS approval of a sediment control or stormwater management plan is for demonstrated compliance with minimum environmental runoff treatment standards and does not create or imply any right to divert or concentrate runoff onto any adjacent property without that property owner's permission. It does not relieve the design engineer or other responsible person of professional liability or ethical responsibility for the adequacy of the drainage design as it affects uphill or downhill properties.

Gannett Fleming / GPI

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section Date

APPROVED

Chief, Division of Transportation Engineering Date

Designed by: Drawn by: Checked by:

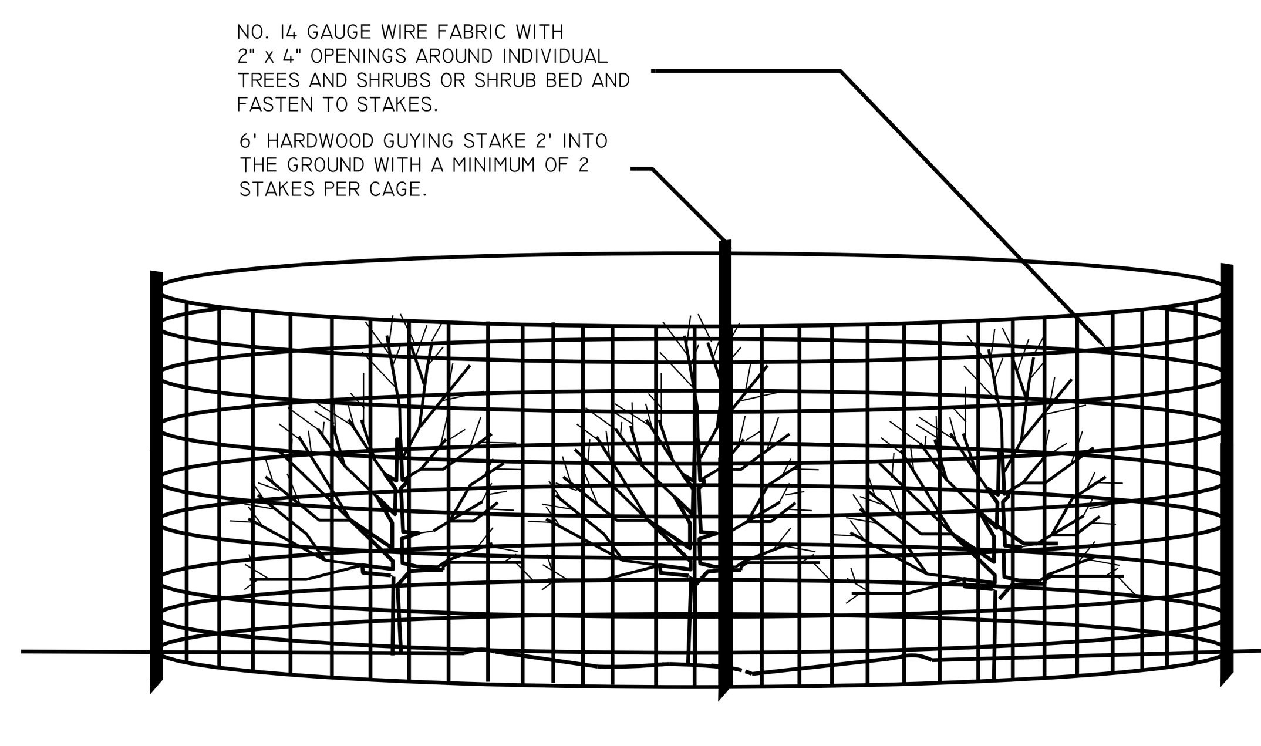
SNOUFFER SCHOOL ROAD

STREAM RESTORATION LANDSCAPE PLAN SHEET 1

SCALE : 1" = 30'

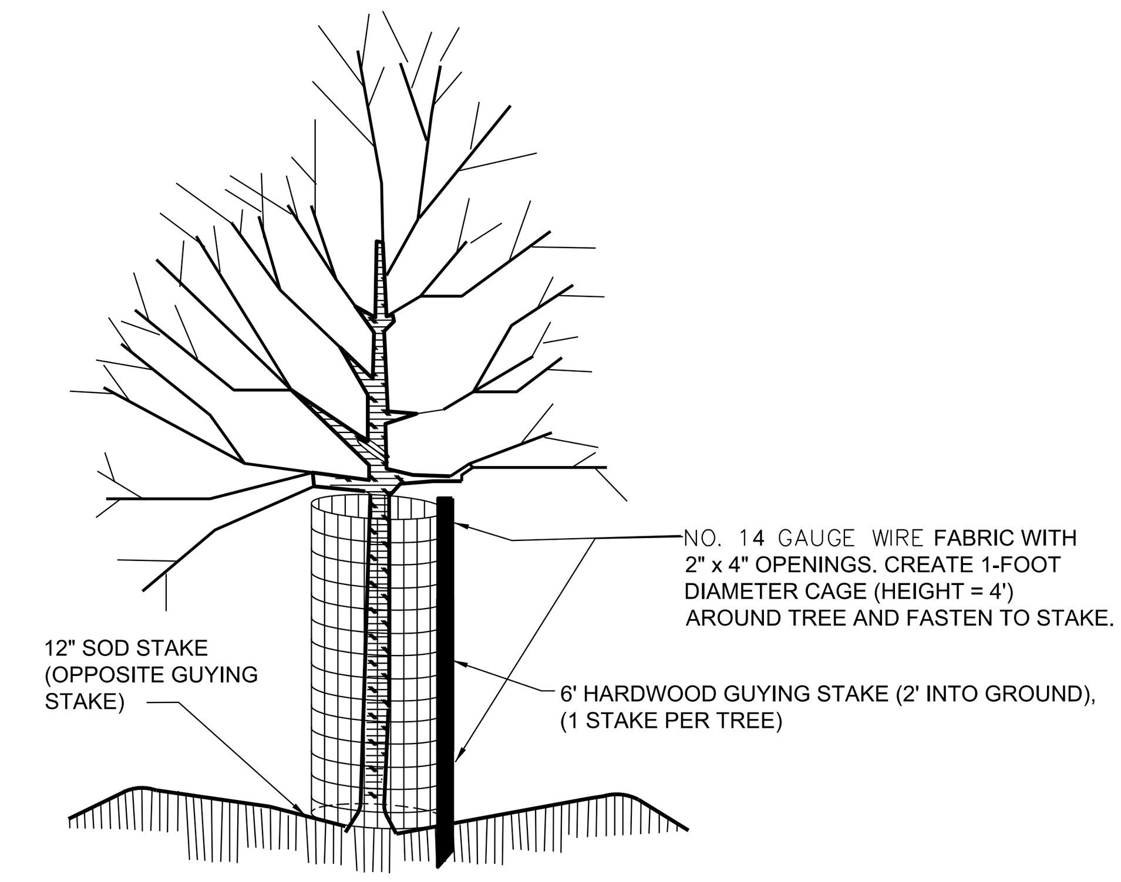
LD-01

Project No. : 200661 (501119)

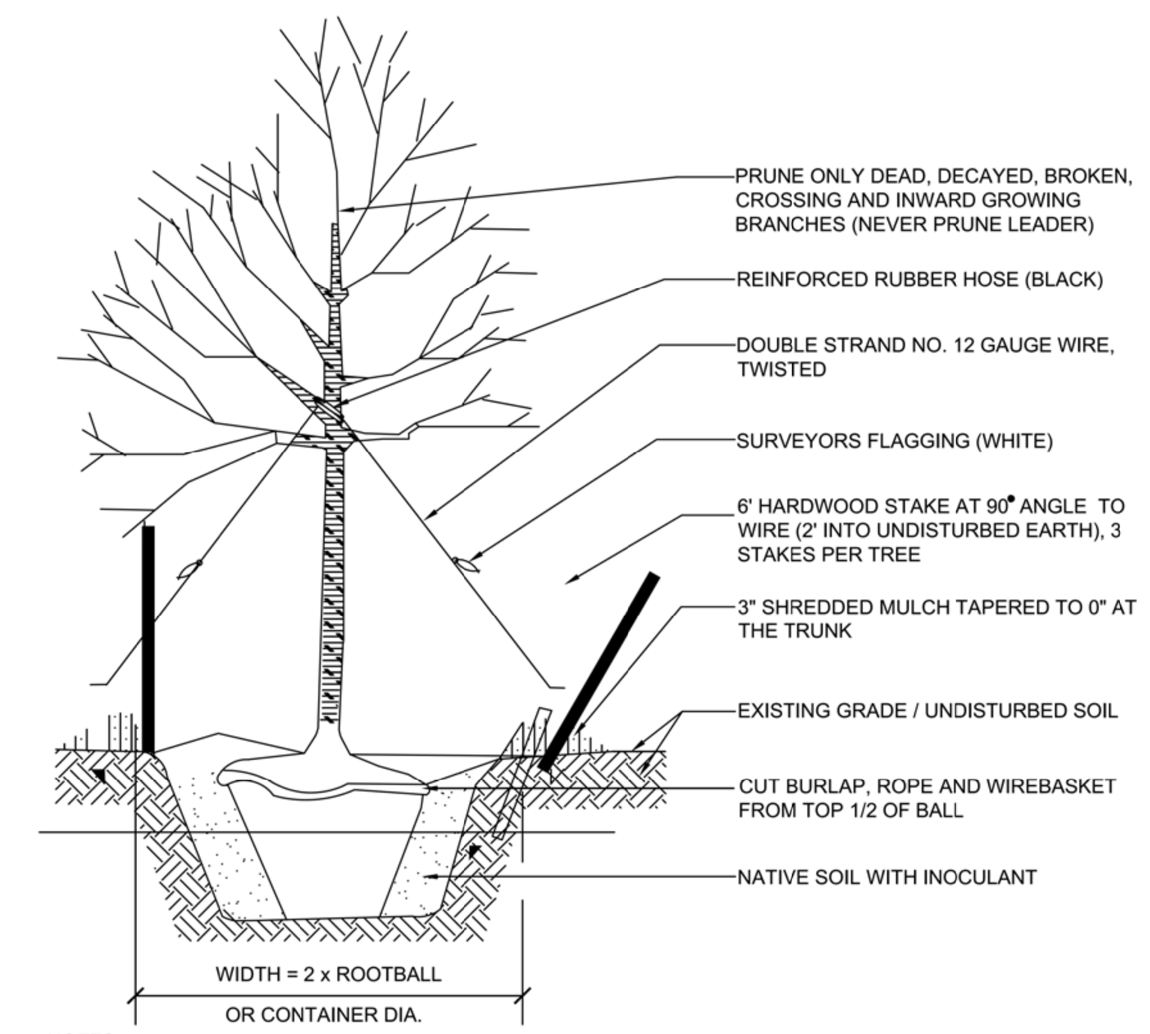


NOTES:

1. THIS DETAIL IS TO BE USED FOR INDIVIDUAL SHRUBS AND SHRUB BEDS. IN ADDITION, IT WILL BE USED FOR EVERGREEN TREES OR DECIDUOUS TREES WITH BRANCHES LOWER THAN 4' IN HEIGHT.
2. HEIGHT OF CAGE SHALL BE 4 FEET MINIMUM WITH A MAXIMUM DIAMETER OF 10 FEET.
3. CAGE SHALL BE FASTENED TO STAKE WITH 3 (MIN.) TWIST TIE EVENLY SPACED WITH A 6" (MIN.) ABOVE THE GROUND.
4. CAGE SHALL SURROUND ALL SHRUBS AND TREES WITH A 1 FOOT SPACING FROM THE OUTSIDE OF THE PLANT.
5. STAKES SHALL BE PLACED AT A MAXIMUM 5 FOOT SPACING.
6. CAGES TO BE REMOVED AT DIRECTION OF M-NCPPC CONSTRUCTION MANAGER.
7. HARDWOOD MULCH SHALL BE PLACED TO 2-3 INCH DEPTH WITHIN FENCING.



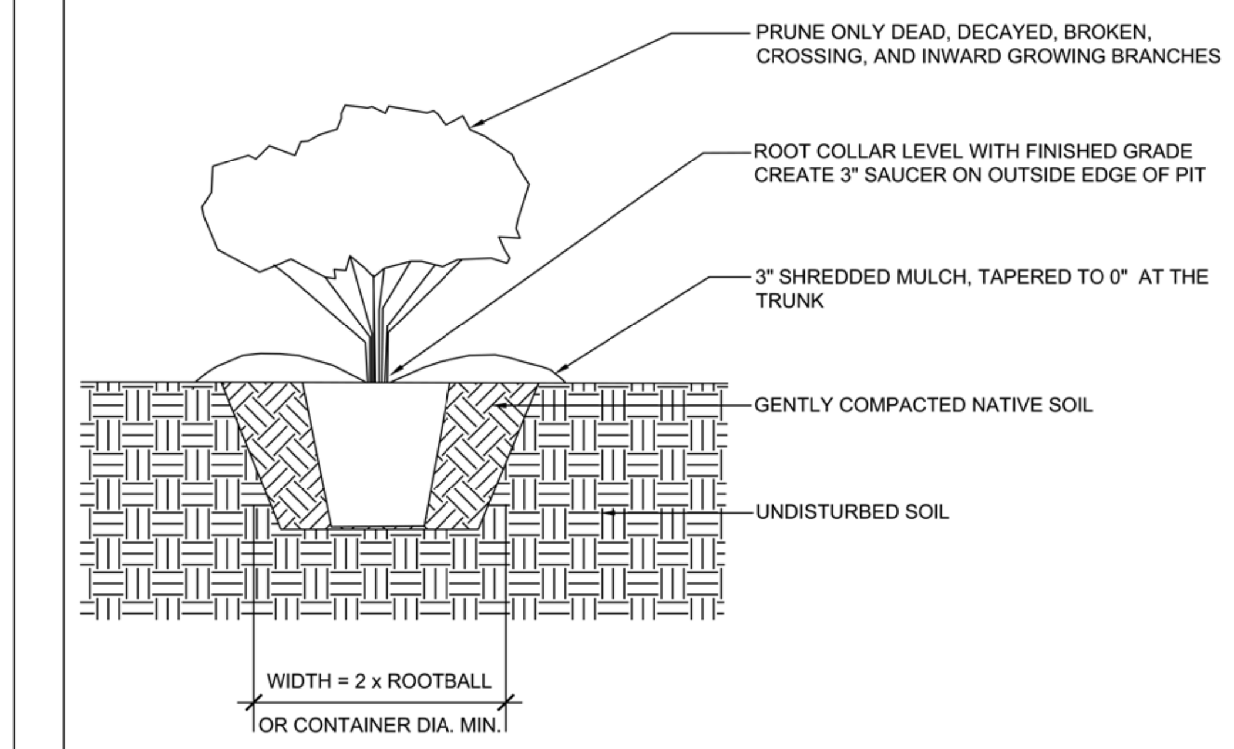
NOTES:
1. CAGE SHALL BE NO. 14 GAUGE WIRE FABRIC WITH 2"x 4" OPENINGS.
2. CAGE HEIGHT SHALL BE 4' (MIN.)
3. CREATE A 1-FOOT DIAMETER CAGE AROUND TREE.
4. FOR MULTI-STEM TREES AND SHRUBS OR TREES WITH LEADERS BELOW 4', USE WIDER CAGE TO LEAVE A 1-FOOT DIAMETER AROUND TREE.
5. CAGE SHALL BE FASTENED TO STAKE WITH TWO (MIN.) 11-INCH TWIST TIES, ONE AT TOP AND ONE AT 6" (MIN.) ABOVE THE GROUND.
6. INSTALL 6' HARDWOOD GUYING STAKE, 2' INTO GROUND, 1 STAKE (MIN.) PER CAGE.
7. ENSURE CAGE IS FASTENED TO THE GROUND TO PREVENT UPLIFT BY DEER BY INSTALLING A 12" SOD STAKE OPPOSITE THE GUYING STAKE.
8. FOR TREES LARGER THAN 3" CALIPER WITH NO BRANCHING BELOW 4', CAGE CAN BE SUBSTITUTED WITH DEER BARK PROTECTORS (ITEMS #bg48, BY A.M. LEONARD) OR EQUAL.
9. DO NOT DAMAGE TREE DURING INSTALLATION.
10. CAGES TO BE REMOVED ONLY AT DIRECTION OF FOREST ECOLOGIST.



NOTES:

1. STAKES AND WIRES MUST BE REMOVED NO LATER THAN 12 MONTHS AFTER PLANTING.
2. PLANTING HOLE SHALL BE DUG BY A BACKHOE OR OTHER MACHINE AND FINISHED BY HAND.
3. IF SURROUNDING SOIL IS COMPACTED AS DETERMINED BY M-NCPPC PLANNING DEPT INSPECTOR OR PARKS DEPT FOREST ECOLOGIST, AN AREA UP TO 5 TIMES THE DIA. OF THE ROOT MASS SHALL BE EXCAVATED OR ROTOTILLED TO A 1' DEPTH AND THE SOIL SHALL BE AMENDED.
4. DO NOT DAMAGE OR CUT LEADER.
5. ROOT FLAIR EVEN WITH LEVEL OF UNDISTURBED GROUND.

DECIDUOUS PLANTS - (2 ½ " Caliper or Larger)
The Maryland-National Capital Park and Planning Commission
Montgomery County Department of Parks
Detail No.
DECEMBER 2007



NOTES:

1. REMOVE ALL POTS AND WIRE AND CUT CONTAINER CLEANLY WAY FROM ROOTS.
2. REMOVE BURLAP FROM TOP HALF OF ROOT BALL.
3. CONTAINER PLANTINGS MAKE 4 TO 5 VERTICAL CUTS TO THE ROOT BALL BEFORE SETTING IN PLACE.
4. PRUNE ALL DAMAGED, DISEASED, OR WEAK LIMBS AND ROOTS.
5. CLEANLY PRUNE ALL DAMAGED ROOT ENDS TEASE ROOTS OF CONTAINER GROWN STOCK.
6. DO NOT ALLOW ROOTS TO DRY OUT DURING INSTALLLATION PROCESS.
7. DEEP WATER AFTER PLANTING.

LANDSCAPE SHRUB N. T. S.
The Maryland-National Capital Park and Planning Commission
Montgomery County Department of Parks
Detail No.
OCTOBER 2007

Sequence of Events for Properties Required to Comply with Forest Conservation Plans, Exemptions from Submitting Forest Conservation Plans, and Tree Save Plans

Pre-Construction

1. An on-site pre-construction meeting is required after the limits of disturbance have been staked and flagged and before any land disturbance. The property owner shall contact the Montgomery County Planning Department inspection staff before any land disturbing activities occur to verify the limits of disturbance and discuss tree protection and tree care measures. The property owner's representative, construction superintendent, International Society of Arboriculture (ISA) certified arborist or Maryland licensed tree expert that will implement the tree protection measures, Forest Conservation Inspector, and Montgomery County Department of Permitting Services (DPS) Sediment Control Inspector must attend this pre-construction meeting.

2. No land disturbance shall begin before stress-reduction measures have been implemented. Appropriate stress-reduction measures may include, but are not limited to:
   a. Root pruning
   b. Crown reduction or pruning
   c. Watering
   d. Fertilizing
   e. Vertical mulching
   f. Root aeration matting

   Measures not specified on the plan may be required as determined by the Forest Conservation Inspector in coordination with the property owner's arborist.

3. A Maryland licensed tree expert, or an ISA certified arborist must perform all stress reduction measures. Implementation of the stress reduction measures must be observed by the Forest Conservation Inspector or written documentation must be sent to the Forest Conservation Inspector at 8787 Georgia Avenue, Silver Spring, MD 20910. The Forest Conservation Inspector will determine the exact method to convey the implementation of all stress reductions measures during the pre-construction meeting.

4. Temporary tree protection devices shall be installed per the approved Forest Conservation Plan, exemption from submitting a Forest Conservation Plan, or Tree Save Plan and prior to any land disturbance. Tree protection fencing locations must be staked and flagged prior to the pre-construction meeting. The Forest Conservation 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 protect devices may include:
   a. Chain link fence (four feet high)
   b. Super silt fence with wire strung between the support poles (minimum 4 feet high) with high visibility flagging.
   c. 14 gauge 2 inch x 4 inch welded wire fencing supported by steel T-bar posts (minimum 4 feet high) with high visibility flagging.

5. Temporary protection devices must be maintained and installed by the property owner for the duration of construction project and must not be altered without prior approval from the Forest Conservation Inspector. 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 is permitted. Tree protection must not be removed without prior approval of Forest Conservation Inspector.

6. Forest retention area signs must be installed as required by the Forest Conservation Inspector, or as shown on the approved plan.

7. Long-term protection devices must be installed per the approved plan. Installation will occur at the appropriate time during the construction project. Refer to the approved plan drawing for the long-term protection measures to be installed.

During Construction

8. Periodic inspections by the Forest Conservation Inspector will occur during the construction project. Corrections and repairs to all tree protection devices, as determined by the Forest Conservation Inspector, must be made within the timeframe established by the Forest Conservation Inspector.

9. The property owner must immediately notify the Forest Conservation Inspector of any damage to trees, forests, understory, ground cover, and any other undisturbed areas shown on the approved plan. Remedial actions to restore these areas will be determined by the Forest Conservation Inspector and those corrective actions must be made within the timeframe established by the Forest Conservation Inspector.

Post-Construction

10. After construction is completed, the property owner must request a final inspection with the Forest Conservation Inspector. At the final inspection, the Forest Conservation Inspector may require additional corrective measures, which may include:
    a. Removal and replacement of dead and dying trees
    b. Pruning of dead or declining limbs
    c. Soil aeration
    d. Fertilization
    e. Watering
    f. Wound repair
    g. Clean up of retention areas including trash removal

11. After the final inspection and completion of all corrective measures the Forest Conservation Inspector will request all temporary tree and forest protection devices be removed from the site. Removal of tree protection devices that also operate for erosion and sediment control must be coordinated with both DPS and the Forest Conservation Inspector. No additional grading, sodding, or burial may take place after the tree protection fencing is removed.

INSPECTIONS

All field inspections must be requested by the applicant.

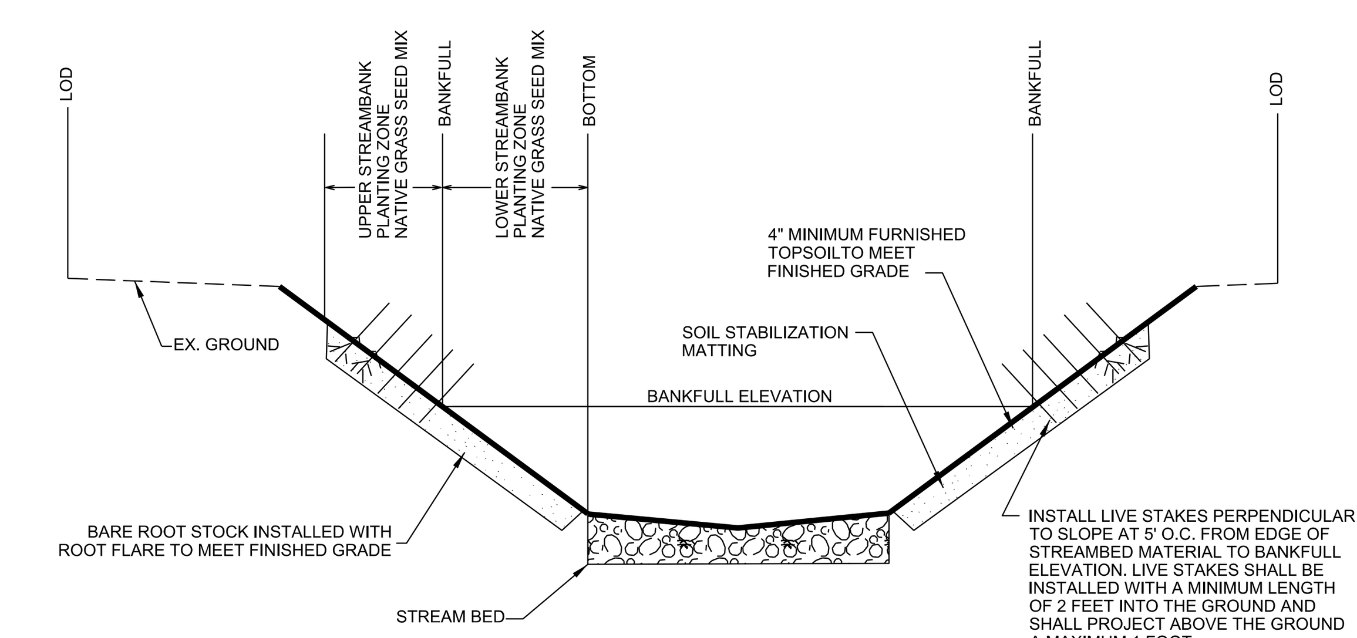
Field Inspections must be conducted as follows:

Plans without Planting Requirements

1. After the limits of disturbance have been staked and flagged, but before any clearing or grading begins.
2. After necessary stress reduction measures have been completed and protection measures have been installed, but before any clearing and grading begin and before release of the building permit.
3. After completion of all construction activities, but before removal of tree protection fencing, to determine the level of compliance with the provision of the forest conservation.

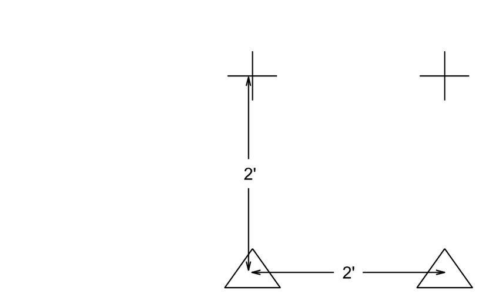
Additional Requirements for Plans with Planting Requirements

4. Before the start of any required reforestation and afforestation planting.
5. After the required reforestation and afforestation planting has been completed to verify that the planting is acceptable and prior to the start the maintenance period.
6. At the end of the maintenance period to determine the level of compliance with the provisions of the planting plan, and if appropriate, release of the performance bond.



1. BARE ROOT STOCK SHALL BE INSTALLED HIGH ON THE LOWER BANK AS SHOWN IN THE DETAIL. THE PLANTING HOLE SHALL BE WIDE AND DEEP ENOUGH TO ENSURE THAT THE ROOTS FIT WITHOUT BEING FOLDED UPWARD.
2. PRIOR TO INSTALLATION THE PORTION OF THE STAKE TO BE INSTALLED UNDERGROUND SHALL BE TREATED WITH AN APPROVED ROOTING HORMONE.

SHRUB PLAN TING - LIVE STAKES
TYPICAL SECTION
NOT TO SCALE



+ - COMMON ELDERBERRY
△ - SILKY WILLOW

LIVE STAKE SPACING - 2' OC
PLAN VIEW
NOT TO SCALE

MCDPS
APPROVED FOR:

STORMWATER MANAGEMENT:

REVIEWED DATE

APPROVED DATE

SM FILE #

SEDIMENT CONTROL TECHNICAL REQUIREMENTS:

REVIEWED DATE

APPROVED DATE

ADMINISTRATIVE REQUIREMENTS:

REVIEWED DATE

SEDIMENT CONTROL PERMIT #

NOTE

MCDPS APPROVAL OF THIS PLAN WILL EXPIRE TWO YEARS FROM THE DATE OF APPROVAL IF THE PROJECT HAS NOT STARTED.

THIS APPROVAL DOES NOT NEGATE THE NEED FOR A MCDPS ACCESS PERMIT.

DPS approval of a sediment control or stormwater management plan is for demonstrated compliance with minimum environmental runoff treatment standards and does not create or imply any right to divert or concentrate runoff onto any adjacent property without that property owner's permission. It does not relieve the design engineer or other responsible person of professional liability or ethical responsibility for the adequacy of the drainage design as it affects uphill or downhill properties.

DEVELOPER'S CERTIFICATE

The Undersigned agrees to execute all the features of the Approved Final Forest Conservation Plan No. MR 2014038 including, financila bonding, forest planting, maintenance, and all other applicable agreements.

Developer's Name: Montgomery County DOT

Contact Person or Owner: ____

Address: ____

Phone and Email: ____

Signature: ____

Gannett Fleming / GPI

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section Date

APPROVED

Chief, Division of Transportation Engineering Date

Designed by: ____ Drawn by: ____ Checked by: ____

SNOUFFER SCHOOL ROAD

STREAM RESTORATION LANDSCAPE PLAN DETAIL SHEET

SCALE : 1" = 30'

LD-02

Project No. : 200661 (501119)

ATTACHMENT 2

GPI Greenman-Pedersen, Inc.

Engineering and Construction Services

March 8, 2016

Area 2 Division
M-NCPPC
8787 Georgia Avenue
Silver Spring, MD 20910

Re: Tree Removal Variance for Snouffer School Road Improvements
Forest Conservation Plan MR2014038

Attn: Amy Lindsey

Pursuant to Section 22A-21 Variance provisions of the Montgomery County Code and provisions contained in Section 5-1607 of Title 5 (Natural Resources) of the Maryland Code, the Montgomery County Department of Transportation (MC-DOT) is writing to request a variance to allow disturbance to three (3) trees identified on the approved Natural Resource Inventory/ Forest Stand Delineation and described below for the above-named project.

Project Description
As part of Snouffer School Road Improvement project, a Capital Improvement Project to upgrade the roadway conditions and safety along Snouffer School Road, Cabin Branch and Tributary 69 are to undergo stream restoration. The existing two lane road is inadequate for the current and future traffic projections. A Multi-service agency complex is being developed within the project limits that will increase traffic counts. In order to provide for the additional capacity and the more importantly to improve safety throughout this segment of roadway, a four-lane divided roadway is being designed. It will have a new segment of bridge over Cabin Creek, an 8-foot shared use path on the northern side, and a 5-foot sidewalk on the southern side. This section of road links to the proposed one-mile roadway improvement directly to the south from Centerway Drive to Sweet Autumn Drive.

Approximately 1500 linear feet along Cabin Branch and 450 feet along Tributary 69, upstream and downstream of Snouffer School Road, were found to be in need of restoration. The plan revisions will also affect SC #2008018 and MR2010738 and are addressed in the corresponding amendments.

Two (2) specimen trees are proposed for removal. Six (6) additional specimen trees will have minimal disturbance within their critical root zones. The specimen tree conditions are described below:

1. Tree ID #7 will have 48% of its CRZ impacted. This Red Oak currently measures 40.5" dbh and is in fair condition. It has a split trunk, has a 15%+ lean and dead branches in the crown. The CRZ impacts are a result of roadway grading.
2. Tree ID#12 is a 30.5" dbh Red Maple, would have a 68%CRZ impact. The tree is in fair condition with a 15% lean toward the road and an uneven crown. Roadway grading and stream stabilization activities will impact the tree roots.

10977 Guilford Road, Annapolis Junction, MD 20701 | Tel: 410.880.3055 Fax: 301.490.2649
www.gpinet.com

Tree number	Size DBH	Forest Stand	Common name	*Scientific name*	Condition	CRZ Impact	Status
7	40.5	2	Red Oak	*Quercus rubra*	Fair	48.00%	Remove
12	30.5	3	Red Maple	*Acer rubrum*	Fair	68.00%	Remove
15	43.0	3	Tulip poplar	*Liriodendron tulipifera*	Poor	8.00%	Save
16	40.0	3	Tulip poplar	*Liriodendron tulipifera*	Fair	8.00%	Save
17	37.5	2	Tulip poplar	*Liriodendron tulipifera*	Fair	17.00%	Save
20	39.5	2	Tulip poplar	*Liriodendron tulipifera*	Poor	2.25%	Save
30	30.0	N/A	Korean Pine	*Pinus koraiensis*	Good	7.94%	Save
32	30.0	N/A	Korean Pine	*Pinus koraiensis*	Good	23.75%	Save

The Forest Conservation Plan provides detailed information for the available tree protection methods that will be used (e.g. mulch access, tree protection fencing and planking, pruning, and matting) where access or grading cannot be eliminated without imposing a significant and unwarranted hardship upon MC-DOT. Again, no tree is impacted without due consideration on this project and we reserve the right to further reduce tree impacts and improve our Forest Conservation Plan further after construction stake-out where possible.

Requirements and Justification for Variance:
Section 22A-21(b) Application requirements states that the applicant must:

(1) Describe the special conditions peculiar to the property which would cause the unwarranted hardship;
The attached Preliminary Forest Conservation Plan shows the project site, its surroundings and proposed construction relative to the existing trees for which this variance request has been filed. We have designed access and grading to minimize tree loss, particularly to specimen trees, and we have a vested interest in minimizing tree loss. The design has taken into consideration the natural resources and significant trees. The roadway and associated median have been reduced to the minimum amount possible for a divided road and bridge. Separation of the bridge is required due to a combination of clearance for flood conveyance and the 5 percent superelevation of the bridge. Increasing the overall elevation of the bridge to an elevation sufficient to allow a single structure would increase the height of bridge approaches, affecting site visibility near an intersection, increasing the width of fill required for side slopes, thus increasing the likelihood of impacts to wetlands, wetland buffers, forest stands, or other specimen candidate trees as well as construction cost

(2) Describe how enforcement of these rules will deprive the landowner of rights commonly enjoyed by others in similar areas;
MC-DOT projects are designed to protect public safety with the pledge to protect natural resources to the maximum practicable extent. This includes wetlands, waterways, forests and specimen trees. Of the 85 significant (>24 inch DBH) trees and 20 specimen trees (>30 inch DBH) observed within the 100-ft NRI/FSD study area, thirteen (13) trees greater than 30 inches DBH are planned for removal. Eleven of these trees are outside of the area covered in this variance request. They are part of SC#2009018 Amendment. While activities are planned in the critical root zones of some of the listed trees, most tree impacts will be mitigated with proper oversight and tree protection measures. Enforcement of a prohibition on potentially disturbing the forest stand would deprive the public of rights commonly enjoyed by others who are served by similar projects in developing areas that have benefited from such projects.

(3) Verify that State water quality standards will not be violated or that a measurable degradation in water quality will not occur as a result of the granting of the variance;
All stream channel work will be carried out using a stream flow pump-around to minimize erosion and maximize sediment control by working in dry stream channels. All disturbed areas will be stabilized with permanent seeding and matting. All activities in these areas will be conducted in accordance with appropriate permits, processes, and guidelines.
Execution of this project will also improve water quality by updating the stormwater management infrastructure in the area.
For the above reasons, the removal of the forest stand would not violate the aforementioned standards, nor would it result in a measurable degradation in water quality.

Much of the floodplain forest is comprised of similarly aged red and silver maple. The canopy is so dense that understory trees, shrubs and ground cover are generally lacking, contributing to lack of roots to stabilize stream banks. The restoration of the stream and removal of a few existing trees will create enough light gaps for mitigation plantings to become established, thus enhancing stand structural diversity and the long term stability of the stream banks.

Finally, we understand that we need to address mitigation for tree removal under revisions to the State's Forest Conservation Act (FCA) that took effect on October 1, 2009. For the proposed project, a total of 71 inches of tree DBH are being removed and replaced at a 25 percent amount. Therefore, an equivalent of 18 inches of tree caliber is to be replanted. To mitigate for the removal of the trees, the landscape plans for Snouffer School Road Improvements project include planting of six (6) trees with a 3-inch caliber. This Forest Conservation Plan and worksheet address all impacts to regulated trees to be removed and critical root zones within the project limits of disturbance and forest boundary.

If you have any other questions or need additional information, please contact me at 410-880-3055 or via email at dmerkey@gpinet.com.

Sincerely,

Dave Merkey