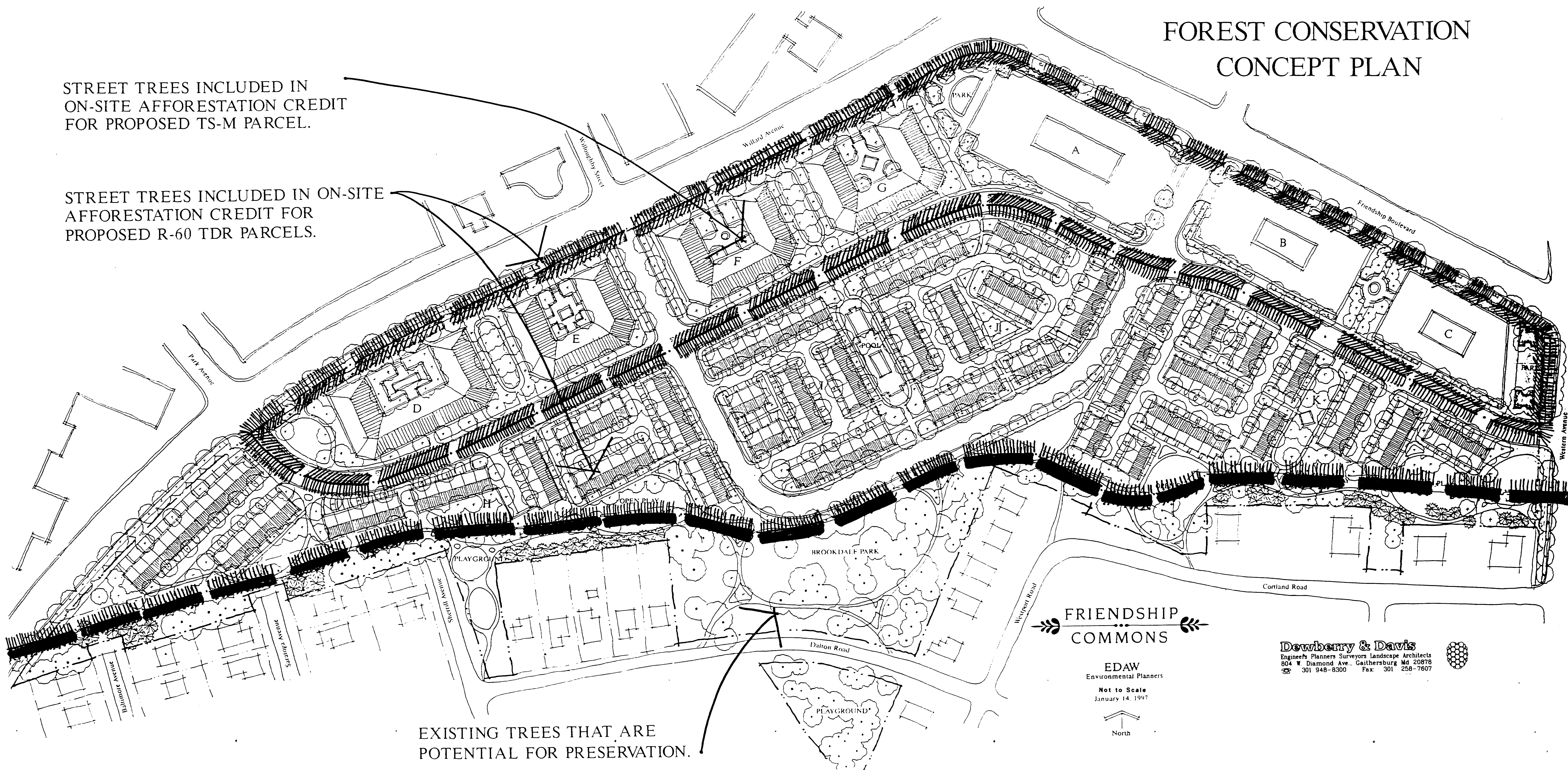


FOREST CONSERVATION  
CONCEPT PLAN

STREET TREES INCLUDED IN  
ON-SITE AFFORESTATION CREDIT  
FOR PROPOSED TS-M PARCEL.

STREET TREES INCLUDED IN ON-SITE  
AFFORESTATION CREDIT FOR  
PROPOSED R-60 TDR PARCELS.

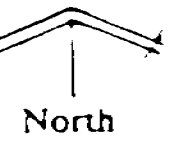
EXISTING TREES THAT ARE  
POTENTIAL FOR PRESERVATION.



FRIENDSHIP  
COMMONS

EDAW  
Environmental Planners

Not to Scale  
January 14, 1997



Dewberry & Davis  
Engineers Planners Surveyors Landscape Architects  
804 W. Diamond Ave., Gaithersburg Md 20878  
301 948-8300 Fax: 301 258-7607





NARRATIVE

**FOREST CONSERVATION CONCEPT PLAN**

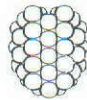
for  
**GOVERNMENT EMPLOYEE INSURANCE COMPANY (GEICO) PROPERTY  
TS-M LOCAL MAP AMENDMENT (REZONING) APPLICATION**

7th Election District  
Chevy Chase, Maryland

**prepared for:**

GEICO  
One GEICO Plaza  
Washington, D.C. 20076

**prepared by:**



**Dewberry & Davis**  
804 West Diamond Avenue  
Gaithersburg, Maryland 20878

Originally submitted: March 31, 1998  
Revised: July 2, 1998

## **PRELIMINARY FOREST CONSERVATION PLAN**

A Forest Conservation Worksheet for each area has been prepared and is included with this narrative.

### ***TS-M Portion***

The Worksheet indicates that 1.49 acres of afforestation are required. This requirement will be met in the following manner:

|                                            |                |
|--------------------------------------------|----------------|
| Tree plantings within the Subject Property | 0.70 acres     |
| Off-site Afforestation:                    | 0.79 acres +/- |
| Total Afforestation                        | 1.49 acres     |

### ***R-60/TDR Portion***

The worksheet indicates that 2.49 acres of afforestation are required. This requirement will be met in the following manner:

|                                            |                |
|--------------------------------------------|----------------|
| Tree plantings within the Subject Property | 1.17 acres     |
| Credit for trees preserved on-site         | 0.52 acres     |
| Off-site Afforestation:                    | 0.80 acres +/- |
| Total Afforestation                        | 2.49 acres     |

### **Tree Plantings within the Subject Property**

A conceptual study of the site (see attached) indicates that as many as 150 individual trees could be planted within the TS-M portion of the Subject Property and 250 individual trees in the R-60/TDR portion as part of the redevelopment of the site. In addition, as many as 221 existing trees may be preserved including 14 specimen trees.

Per M-NCPPC regulations, 25% of the mature canopy area of proposed individual trees can be credited toward reforestation / afforestation requirements with a ceiling on the percentage of the total trees planted on the site that can be included in this calculation ranging from 20 to 100%.

Based on a recent conversation with Ms. Catherine A. Conlon of the Environmental Planning Division of M-NCPPC, 100% of the trees proposed as part of this redevelopment will be allowed as a credit toward the afforestation requirements.



In addition, based on a recent conversation with Brenda Sandberg of M-NCPPC, credit for 25% of the canopy area of trees to be preserved and 100% of the canopy area of specimen trees to be preserved can be applied to the afforestation requirements.

Therefore, the calculation of the afforestation credit for the TS-M portion to be realized is as follows:

Table 1. Calculation of Total Afforestation Credit for On-site Tree Plantings in the TS-M Portion.

| Number of Trees | Size (d = diameter of tree canopy coverage) in feet | Credit per tree in square feet $\{0.25[\pi(d/2)^2]\}$ | Total Credit in square feet [acres] |
|-----------------|-----------------------------------------------------|-------------------------------------------------------|-------------------------------------|
| 20              | 40                                                  | 314.2                                                 | 6,284. [0.14]                       |
| 35              | 35                                                  | 240.5                                                 | 8,417. [0.19]                       |
| 80              | 30                                                  | 176.7                                                 | 14,136. [0.32]                      |
| 15              | 25                                                  | 122.7                                                 | 1,840. [0.04]                       |
| <b>150</b>      |                                                     | <b>Total Credit</b>                                   | <b>30,677. [0.70]</b>               |

In addition, the calculation of the afforestation credit for the R-60/TDR portion to be realized is as follows:

Table 2. Calculation of Total Afforestation Credit for On-site Tree Plantings in the R-60/TDR Portion.

| Number of Trees | Size (d = diameter of tree canopy coverage) in feet | Credit per tree in square feet $\{0.25[\pi(d/2)^2]\}$ | Total Credit in square feet [acres] |
|-----------------|-----------------------------------------------------|-------------------------------------------------------|-------------------------------------|
| 30              | 40                                                  | 314.2                                                 | 9,426. [0.22]                       |
| 65              | 35                                                  | 240.5                                                 | 15,632. [0.36]                      |
| 125             | 30                                                  | 176.7                                                 | 22,087. [0.51]                      |
| 30              | 25                                                  | 122.7                                                 | 3,681. [0.08]                       |
| <b>250</b>      |                                                     | <b>Total Credit</b>                                   | <b>50,826. [1.17]</b>               |

Finally, the calculation of the afforestation credit for trees preserved in the R-60/TDR portion of the site is as follows:

Table 3. Calculation of Total Afforestation Credit for Preserving On-site Trees in the R-60/TDR Portion.

| Number of Trees     | Size (d = diameter of tree canopy coverage) in feet | Credit per tree in square feet<br>$\{0.25[\pi(d/2)^2]\}$ | Total Credit in square feet [acres] |
|---------------------|-----------------------------------------------------|----------------------------------------------------------|-------------------------------------|
| 207                 | 15 (see note 1)                                     | $\{0.25[\pi(d/2)^2]\} = 44.2$                            | 9,149. [0.21]                       |
| [Specimen Trees] 14 | 35 (see note 2)                                     | $\{1.0[\pi(d/2)^2]\} = 962.0$                            | 13,468. [0.31]                      |
| <b>Total Credit</b> |                                                     |                                                          | <b>22,617. [0.52]</b>               |

Notes:

1. Average of trees to be preserved per NRI/FSD field survey notes.
2. Average of specimen trees to be preserved per NRI/FSD field survey notes.

### Off-site Afforestation

Specific off-site afforestation measures have yet to be determined.

### QUALIFICATIONS OF PREPARER

Stuart D. Wallace, ASLA is a Registered Landscape Architect in the State of Maryland and has been in practice for 18 years. Mr. Wallace has received Master's Degrees in Landscape Architecture and Civil Engineering and also attended a Maryland Department of Natural Resources Forest Conservation Act Technical Training Workshop in 1992.

Mr. Wallace has produced Natural Resource Inventories, Forest Stand Delineations and Forest Conservation Plans for a variety of public and private clients in Maryland over the past six years.

George Warholic holds a Bachelors of Landscape Architecture, and is certified through the Maryland Department of Natural Resources to perform and prepare Forest Stand Delineations and Forest Conservation Plans.

### ATTACHMENTS

1. Forest Conservation Worksheets
2. Forest Conservation Concept Plan\*

\* *This plan is illustrative only and is only submitted as a representation of how the site might be developed with the resulting tree plantings and tree preservation areas.*



## **FOREST CONSERVATION CONCEPT PLAN**

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### **SUMMARY**

This narrative is intended to demonstrate the feasibility of meeting the Forest Conservation requirements as part of the materials supporting an application to rezone 9.91 acres of the Subject Property as TS-M. While the plan is not being submitted for final approval at this time, the narrative identifies how the requirements will be met if the Conceptual Plan is pursued.

The Subject Property consists of a total of 26.5 acres. 9.91 acres is included in the area proposed for rezoning as TS-M. The remainder, 16.59 acres, will be zoned R-60/TDR. For the purposes of this submittal, some of the calculations in this report are segregated according to the parcel boundaries.

As a result of proposed extensive redevelopment within the TS-M portion of the Subject Property, 164 trees will be removed. In addition, per the current conceptual plan for the R-60/TDR portion of the Subject Property, as many as 200 trees will be removed and 221 preserved.

The Forest Conservation Concept Plan indicates the amount of afforestation required for the TS-M portion of the Subject Property - 1.49 acres - will be accomplished through a combination of on-site streetscape and open space tree plantings and off-site afforestation.

The Forest Conservation Concept Plan indicates the amount of afforestation required for the R-60/TDR portion of the Subject Property - 2.49 acres - will be accomplished through a combination of on-site streetscape and open space plantings, preservation of existing trees and off-site afforestation.

### **CONCEPTUAL DEVELOPMENT PLAN**

Proposed redevelopment of the TS-M portion of the Subject Property includes demolition of the existing structures and built features on the site, regrading of the property, removal of all trees located within the property lines and construction of a mixed use development combining office-commercial and multi-family residential uses in a series of structures positioned parallel with Willard Avenue and Friendship Boulevard.

Open space and public use areas along the perimeter of the site and between structures will include extensive canopy and ornamental tree plantings to help define distinct urban streetscapes and building courtyard areas.

Proposed redevelopment of the R-60/TDR portion of the Subject Property includes removal of a portion of the existing trees and construction of single family, attached residential structures.

## FRIENDSHIP COMMONS - TS-M

02-Jul-98

FOREST CONSERVATION WORKSHEET  
VERSION 1.1

## NET TRACT AREA:

|                                                                                  |      |
|----------------------------------------------------------------------------------|------|
| A. Total tract area .....                                                        | 9.91 |
| B. Area within 100 year floodplain (If greater than 400 acre drainage area) .... | 0.00 |
| C. Dedicated land .....                                                          | 0.00 |
| D. Net tract area.....                                                           | 9.91 |

## LAND USE CATEGORY: (from table 3.2.1, page 40, Manual)

Input the number "1" under the appropriate land use  
zoning, and limit to only one entry.

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

|                                 |     |     |      |
|---------------------------------|-----|-----|------|
| E. Afforestation Threshold..... | 15% | D = | 1.49 |
| F. Conservation Threshold.....  | 15% | D = | 1.49 |

## EXISTING FOREST COVER:

|                                                       |      |
|-------------------------------------------------------|------|
| G. Existing forest cover .....                        | 0.00 |
| H. Area of forest above afforestation threshold ..... | 0.00 |
| I. Area of forest above conservation threshold .....  | 0.00 |

## BREAK EVEN POINT:

|                                                             |      |
|-------------------------------------------------------------|------|
| J. Forest retention above threshold with no mitigation..... | 0.00 |
| K. Clearing permitted without mitigation.....               | 0.00 |

## PROPOSED FOREST CLEARING:

|                                             |      |
|---------------------------------------------|------|
| L. Total area of forest to be cleared.....  | 0.00 |
| M. Total area of forest to be retained..... | 0.00 |

## PLANTING REQUIREMENTS:

|                                                                 |      |
|-----------------------------------------------------------------|------|
| N. Reforestation for clearing above conservation threshold..... | 0.00 |
| P. Reforestation for clearing below conservation threshold..... | 0.00 |
| Q. Credit for retention above conservation threshold.....       | 0.00 |
| R. Total reforestation required.....                            | 0.00 |
| S. Total afforestation required.....                            | 1.49 |
| T. Total reforestation and afforestation required.....          | 1.49 |



## FRIENDSHIP COMMONS - R-60/TDR

02-Jul-98

FOREST CONSERVATION WORKSHEET  
VERSION 1.1

## NET TRACT AREA:

|                                                                                  |       |
|----------------------------------------------------------------------------------|-------|
| A. Total tract area .....                                                        | 16.59 |
| B. Area within 100 year floodplain (If greater than 400 acre drainage area) .... | 0.00  |
| C. Dedicated land .....                                                          | 0.00  |
| D. Net tract area.....                                                           | 16.59 |

## LAND USE CATEGORY: (from table 3.2.1, page 40, Manual)

Input the number "1" under the appropriate land use zoning, and limit to only one entry.

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

|                                 |     |     |      |
|---------------------------------|-----|-----|------|
| E. Afforestation Threshold..... | 15% | D = | 2.49 |
| F. Conservation Threshold.....  | 20% | D = | 3.32 |

## EXISTING FOREST COVER:

|                                                       |      |
|-------------------------------------------------------|------|
| G. Existing forest cover .....                        | 0.00 |
| H. Area of forest above afforestation threshold ..... | 0.00 |
| I. Area of forest above conservation threshold .....  | 0.00 |

## BREAK EVEN POINT:

|                                                             |      |
|-------------------------------------------------------------|------|
| J. Forest retention above threshold with no mitigation..... | 0.00 |
| K. Clearing permitted without mitigation.....               | 0.00 |

## PROPOSED FOREST CLEARING:

|                                             |      |
|---------------------------------------------|------|
| L. Total area of forest to be cleared.....  | 0.00 |
| M. Total area of forest to be retained..... | 0.00 |

## PLANTING REQUIREMENTS:

|                                                                 |      |
|-----------------------------------------------------------------|------|
| N. Reforestation for clearing above conservation threshold..... | 0.00 |
| P. Reforestation for clearing below conservation threshold..... | 0.00 |
| Q. Credit for retention above conservation threshold.....       | 0.00 |
| R. Total reforestation required.....                            | 0.00 |
| S. Total afforestation required.....                            | 2.49 |
| T. Total reforestation and afforestation required.....          | 2.49 |



MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION  
FOREST CONSERVATION PLAN RECOMMENDATIONS

TO: Malcolm Shaneman  
Development Review Division

SUBJECT: Preliminary Forest Conservation Plan # 1-99039  
Preliminary Plan Friendship Commons (GEICO prop.)  
Date Recd 12/11/98 NRI/FSD # 4-98276

The subject Forest Conservation Plan has been reviewed by the Environmental Planning Division to determine if it meets the requirements of Chapter 22A of the Montgomery County Code (Forest Conservation Law). The following determination has been made:

SUBMISSION ADEQUACY

- ☒ Adequate as submitted  
☐ Inadequate for evaluation. The following items must be submitted:  
☐ Forest Conservation Plan Drawing ☐ Forest Conservation worksheet  
☐ Approved NRI/FSD Map ☐ Development Program  
☐ Justification for afforestation/reforestation method  
☐ Qualifications of Preparer(s) ☐ Long term protection methods  
☐ Other \_\_\_\_\_

RECOMMENDATIONS

- ☐ Disapprove for reasons cited in comments below.  
☐ Revise according to the comments specified below.  
☒ Approve subject to the following conditions:  
☒ Required site inspections by M-NCPPC monitoring staff (as specified in "Trees Technical Manual")  
☒ Approval of the following items by M-NCPPC staff prior to DEP issuance of the sediment and erosion control permit:  
☒ Tree Protection Plan **prepared by licensed arborist.**  
☒ Afforestation/Reforestation Planting Plan  
☒ Submittal of financial security to M-NCPPC prior to clearing or grading.  
☒ Record plat to show appropriate notes and/or easements. Agreements must be approved by M-NCPPC staff prior to recording plats.  
☒ Maintenance agreement to be reviewed and approved by M-NCPPC staff prior to first inspection of planted areas.  
☒ Other Submit PFCP copies with landscape architect seal & signature for approval.  
  
☒ Comments: The following will also need to be submitted for the final FCP:  
☐ detailed landscape planting plan  
☐ final grading/sediment & erosion control plan with final LOD  
☐ tree protection plan for the park and greenway area and the trees along Western Avenue prepared by a licensed arborist  
☐ revised tree preservation credit based on arborist analysis & final LOD  
☐ signed off-site planting agreements and easements

SIGNATURE: \_\_\_\_\_

*Brenda Sandberg*  
Environmental Planning Division (301) 495-2162

DATE: 12/17/98

cc: George Warholic, Dewberry & Davis

FCPR r 1/16/97