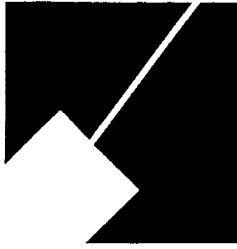


M-NCPPC



MONTGOMERY COUNTY DEPARTMENT OF PARK AND PLANNING

THE MARYLAND-NATIONAL CAPITAL
PARK AND PLANNING COMMISSION

8787 Georgia Avenue
Silver Spring, Maryland 20910-3760

MCPB
ITEM NO. **1&2**
3-4-04

February 27, 2004

MEMORANDUM

TO: Montgomery County Planning Board

VIA: Jeffrey Zyontz, Chief
County-wide Planning Division

Richard C. Hawthorne, Chief
Transportation Planning Unit

A handwritten signature in black ink, appearing to read "Richard C. Hawthorne", is written over the typed name.

cc for Callum Murray, Team Leader
Community-Based Planning Division

FROM: *cc for* Katherine Nelson: 301-495-4622 (Forest Conservation), and Larry Cole: *cc*
301-495-4528 (Mandatory Referral), for the Park and Planning
Department

PROJECT: Quince Orchard Road/Spot Improvements
From Darnestown Road (MD 28) to Dufief Mill Road
CIP No. 509337

REVIEW TYPE: Forest Conservation Plan and Mandatory Referral
No. 03819-DPW&T-1

APPLICANT: Montgomery County Department of
Public Works and Transportation

APPLYING FOR: Plan Approval

COMMUNITY-BASED PLANNING TEAM AREA: Potomac Subregion

**RECOMMENDATION: APPROVAL WITH COMMENTS TO DPWT, AND FORWARD
A COPY OF THESE COMMENTS TO THE COUNTY COUNCIL.**

Forest Conservation Plan:

Staff recommends that the Board approve the Forest Conservation Plan of the proposed project (see Attachment 1: Site Location), with the following comment to DPWT:

1. The preliminary forest conservation plan meets the requirement of the law, although the forest impacts in the park remain a cause for concern.

Mandatory Referral:

Staff recommends that the Board approve the Mandatory Referral of the proposed project, with the following comments to DPWT:

1. Delete the proposed realignment of Quince Orchard Road through Muddy Branch Park in favor of a more limited schedule of improvements in this segment, including:
 - Targeted safety measures for the two spots in the park where accidents have been recorded
 - Localized widening of the two major curves south of the bridge
 - Posting of Muddy Branch Park entrance signs
 - Providing skid-resistant pavement through the park
 - Providing an enhanced crosswalk treatment at the existing equestrian crossing south of Muddy Branch
2. Determine the safest crossing location for the future Muddy Branch Trail and clearly mark it on all future plans.
3. Move the stormwater management pond to the opposite side of Quince Orchard Road from the Potomac Horse Center to minimize impacts on the center's operations.
4. Minimize, to the extent possible, the amount of re-grading and fill proposed on the slope adjacent to the Potomac Horse Center.
5. Confirm that the existing truck restriction along Quince Orchard Road will be retained after construction.
6. Consider reducing the length of the right-turn lane at Dufief Mill Road.
7. Ensure that the runoff from the proposed off-road bikeway south of Muddy Branch does not create a point discharge with a velocity that will erode the steep stream valley slope.
8. Re-evaluate the proposed alignment of the trail segment between Stations 402+00 and 408+00 to ensure that fill slopes and other park impacts are minimized.
9. Prior to the start of construction, the M-NCPPC Plan Inspector and Forest Ecologist must be included in field-locating the limits of disturbance in Muddy Branch Park in order to

minimize the loss of forest and individual specimen trees.

10. A park construction permit will be needed to work on park property and should be applied for when the plans reach semi-final stage. A note must be placed on the plans that "No storage of materials and equipments, and no staging will be allowed on park property without a prior consent from Park Manager or Park Inspector."
11. Contact Bill Gries to obtain a permanent easement from M-NCPPC for the construction and maintenance of the proposed trail on park property.
12. Construct a gravel trailhead parking lot at the northwest corner of the bridge.

PREVIOUS BOARD ACTION: The draft Project Prospectus was reviewed by the Planning Board during the update of the Potomac Subregional Master Plan. This is discussed in BACKGROUND below.

PROJECT DESCRIPTION

The project would provide safety spot improvements along 2.4 miles of Quince Orchard Road from Darnestown Road to Dufief Mill Road (see Attachment 2, the Project Description Form from the County Executive's proposed FY05-FY10 Capital Improvements Program). An eight-foot-wide shared-use trail would be constructed along the west side of the road within these limits and additional segments of sidewalk would be constructed north of Muddy Branch Park.

BACKGROUND

Quince Orchard Road is an arterial roadway that provides a needed connection between Darnestown Road and Dufief Mill/Travilah Road, crossing the Muddy Branch Stream Valley Park. In 1980, the Approved and Adopted Potomac Subregion Master Plan recommended relocation, or a bypass, of the portion of Quince Orchard Road within the stream valley park.

In 1993, the Rustic Road Advisory Committee recommended reclassification of this section of the roadway as an interim exceptional rustic road. The County Council accepted this recommendation based on the assumption that a new alignment would provide the arterial roadway function, allowing the resultant remnant of the existing roadway to be classified as exceptional rustic.

Preparation of the 2002 Potomac Subregional Master Plan took place in parallel with the Montgomery County Department of Public Works and Transportation facility planning study on this rare case of an arterial rustic road. At the time the Master Plan was adopted, the facility planning study, although well advanced, was not complete. Studies at that time indicated that the full realignment recommended in the 1980 Master Plan was not feasible due to environmental and community concerns. Planning staff concurred with this conclusion, believing that any benefits derived from an entirely new alignment across the stream valley park would not offset associated environmental impacts, the capital cost, and intense community opposition.

The 2002 Approved and Adopted Potomac Subregion Master Plan found that the existing roadway through the Muddy Branch stream valley was an integral portion of the needed arterial function of Quince Orchard Road, and was therefore not “intended primarily for local use” as required by the rustic roads legislation. The Master Plan recommended that the designation of interim exceptional rustic road be removed from this portion of Quince Orchard Road. The Master Plan qualified the recommendation by stating:

“Within the Muddy Branch Stream Valley Park, any improvements required to provide the arterial function should apply the most environmentally conservative treatment possible, essentially following the existing road alignment.” (Emphasis added.)

At the Planning Board’s public hearing on the Draft Potomac Subregion Master Plan, the Citizens to Preserve Quince Orchard Road, representing 320 homes, together with 30 individuals, testified in opposition to any realignment of Quince Orchard Road within the Stream Valley Park. Citizens accepted that the recommendation to remove the interim exceptional rustic road designation was linked to the removal of the 1980 Master Plan’s recommendation of a new by-pass alignment and supported ‘spot improvements’ or limited widening of the road at the curves within the park.

STAFF ANALYSIS

Summary

The facility planning study that resulted in the Project Prospectus was on-going at the same time as the Potomac Master Plan update and the same Planning staff were involved in both. Staff believes that the project is substantially consistent with the prospectus recommendation for a minor roadway realignment through the park. However, we do not believe that the project is consistent with the more stringent recommendations of the Master Plan.

The segment of Quince Orchard Road through Muddy Branch Park has very substandard horizontal and vertical curvature. Our staff who disagree with the proposed design see a road that is scenic and relates well to its environment. DPWT staff see a road that is far below applicable design standards for an arterial road, and should be made similar to other arterials in the county as part of the transportation network.

If safety is our primary concern, however, the decision on what to do with this road cannot be made solely on form. The fact is that ***this segment of road, for whatever reason, is among the safer arterial segments in the county and it is highly unlikely that major changes would make it even better.***

Staff is very hesitant to recommend a major revision to a project that has been through the facility planning process. However, for most of the two-year interval between the Board’s review of the prospectus and the submission of the plans for Mandatory Referral, the preliminary plans were developed without an opportunity for staff comments. We believe that the project has strayed from the intent of the Board’s recommendations during that time.

Staff supports most of the features of this project, as they would provide many safety benefits and would improve pedestrian and bicyclist accessibility. However, we believe that the proposed reconstruction of Quince Orchard Road through the park is beyond what is needed, and that the cost of these improvements cannot be justified when weighed against the County's other transportation needs. *We recommend that this reconstruction be deleted from the project.*

Comparison of Project Prospectus Alignment and Proposed Alignment

In plan view, the proposed horizontal alignment is fairly consistent with what is shown in the Facility Planning Project Prospectus and is closer to the existing horizontal alignment in some respects. Although a 30 mph design speed was used, not all of the proposed curves utilize a minimum radius for this design speed, meaning that the shift in the horizontal alignment at the curves is greater than it needs to be to meet the design speed.

The proposed profile differs greatly from what was shown in the Prospectus. The proposed profile is higher on the south side of the Muddy Branch stream valley, resulting in a roadway centerline grade that is up to eight feet above the existing. The proposed profile has much more fill in the floodplain and would require that the tributary to Muddy Branch be placed in a culvert for a longer length than originally anticipated. This is a source of concern for Environmental Planning staff.

The prospectus profile would have had less fill in the floodplain but would have cut down the top of the hill more, creating more slope impacts at the Horse Center, and would have extended the profile changes farther south to eliminate a dip in the roadway just south of the Horse Center. This area was recommended to be improved in the Prospectus because of sight distance concerns and the management of the Horse Center has expressed an interest in seeing it improved for the same reason.

What is a Minor Realignment?

Is there a difference between the Project Prospectus recommendation for a minor realignment of Quince Orchard Road through the park, and the Master Plan recommendation for roadway improvements done in the most environmentally conservative way possible?

Staff believes that there are two ways of looking at how to implement a minor realignment.

Proposed Design through Muddy Branch Park

The first would be what DPWT has done: taking a roadway with a substandard alignment and bringing it up to a minimum design speed. While a 40 mph design speed is typically used for an arterial road, a 30 mph design speed is proposed for this segment of Quince Orchard Road. A lower design speed usually results in lower impacts since it allows sharper curves, both horizontally and vertically, and requires less clearing of trees from the roadside. Staff believes that there are some operational problems with the proposed realignment (see Attachment 3).

Staff is concerned that although the alignment is getting closer to the standard, it may be just enough to encourage higher speeds without making it safer. Although there are very sharp curves on the road now, there are also long straight (tangent) sections between these curves. Tangent sections provide a buffer area between the curves where drivers can correct their steering between opposite direction curves. By flattening these curves, the proposed design makes the curved segments longer, in some cases eliminating the tangent sections. While this design meets the American Association of Transportation Officials (AASHTO) guidelines, it does not meet the road design policy in the County Code (Sec. 50-26), which requires a 100-foot tangent section between curves. Staff believes that retaining the tangent segments is more desirable where the grade of the road is steep, as it would be in this case.

Flattening the more southerly of the large curves at the top of the stream valley would place the entrance to the Potomac Horse Center on the curve rather than south of it and would place the exit much closer to the curve. The operator of the center has expressed concern that this would adversely affect driver safety in this area. DPWT staff has said that they can make this work and provide sufficient sight distance for drivers, but refinements to the design to accomplish this have not yet been presented.

Another operational concern is the existing equestrian crossing near the bottom of the stream valley just south of the other large curve. The roadway profile grade in this area would be raised more than 6.5 feet. While the grade on the east side of the road is fairly close to the existing, no provision has been made on the west side of the road for getting the trail back down to grade, nor has any special provision been made for the trail crossing itself. ***Staff recommends that the design be modified to accommodate the equestrian trail and that sufficient signing and pavement marking be provided to make the road crossing safe.***

Staff-Recommended Minor Improvements

An alternative way of implementing a minor realignment would be to look at smaller "spots" when doing spot improvements: fixing only those design elements that appear to cause a problem rather than all the elements that do not meet the standard. While the high rate of accidents is the reason the overall project is being undertaken, the roadway segment through the park has a far lower accident history than the rest of the project even though it has the most substandard features, features that may effectively act as traffic calming measures.

To staff's knowledge, traffic-calming has been purposely implemented on only one arterial in Montgomery County to date: Leland Street in Bethesda. Because speed humps are not allowed on arterials, the traffic-calming measure employed was chicanes, bump-outs of the curb that force drivers to divert from their path to maneuver around the curb. The chicane creates a localized substandard horizontal alignment that forces drivers to slow down. Staff's point in showing this example is that areas that do not meet the standard do not necessarily create a dangerous condition. Similarly, the existing curves on Quince Orchard Road may in fact create a safer condition for trail users by holding drivers to a slower speed.

While staff believes that the proposed reconstruction should not be pursued, more localized improvements could be beneficial. These improvements could include widening the

pavement at the substandard curves, increasing the centerline radius only minimally in the immediate area of the curve to give drivers a bit more maneuvering room without encouraging them to go faster. Individual trees that are too close to the road should be removed in places where they are most likely to be hit by errant vehicles.

This approach to spot improvements would avoid many of the impacts of the proposed design. It appeared from the comments made at a public meeting held on December 18, 2003, that citizens who were involved in the initial stages of the facility planning process expected a design treatment with only minimal changes.

DPWT met recently with several of the citizens, along with Councilmember Nancy Fioreen, to discuss the current design of the project. DPWT reiterated that they believe the proposed realignment through the park would provide the safest design but offered the changes outlined below to assuage the citizens' concern that the proposed design would increase operating speeds and possibly result in a more dangerous road:

- Posting of 25 MPH speed limit through the park area with advance signage and tactile thermoplastic warning strips (rumble strips)
- Narrowing the lane markings through the park area to 10-foot lanes with 3-foot shoulders, rather than the previously proposed 11-foot lanes with 2-foot shoulders (no pavement width change)
- Installation of raised pavement markings along the centerline
- Tactile grooved edge markings along the inside of the curves.

Staff believes that a minimized project through the stream valley could include these changes, as well as the following to address safety and speeding concerns:

- Posting of Muddy Branch Park entrance signs to provide traffic-calming by notifying people that they are entering a different area
- Providing a skid-resistant pavement overlay through the park
- Providing enhanced crosswalk treatments at the existing equestrian crossing south of Muddy Branch and at the future Muddy Branch Trail crossing.

While reducing accidents is an important overall goal of this project, there is a much lower rate of accidents on the segment of Quince Orchard Road through the park (see Attachment 7). In the whole project length, thirty-one accidents were documented in the Facility Planning Prospectus from January 1997 through December 1999. Four of those accidents were in the segment where the realignment is proposed. These accidents were not spread through the length of the road in the park but were at only two locations. Staff believes that the safety measures constructed for this segment should be focused on these two spots.

Safety

The Project Prospectus includes a comparison of accident rates for various segments of Quince Orchard Road with the statewide average of roadways of this type. The segment from Darnestown Road to Quince Orchard High School (311 accidents per million vehicle miles (MVM)) is significantly higher than the statewide average (250.3 accidents per MVM). The segment from Horse Center Road to Dufief Mill Road, which includes the segment through the park, has a rate of only 126 accidents per MVM, half the statewide average. ***Staff believes that the accident history in this stretch of road does not warrant the proposed reconstruction.***

Rather than being an exceptionally dangerous section of road, the segment through the park appears to be safer than most similar roads, despite its substandard alignment. The road seems to have achieved a natural balance between the topography and the roadway alignment that encourages drivers to drive at a speed that is safe for the road. Staff is concerned that the proposed changes may upset this balance and make it easier for drivers to go faster than it is safe for them to go, and faster than what is safe for other users crossing the road on the existing equestrian trail and on the future Muddy Branch Trail. It is difficult to believe that we could reasonably ensure that the level of accidents after implementing the proposed improvements in the park would be lower than it is now. Given the higher design speed, it is more likely that operating speeds will be higher than that the accident rate will be lower.

Staff believes that the bulleted safety measures proposed by DPWT and those proposed by staff would constitute a low-impact design alternative that would be beneficial in reducing accidents through the park. This alternative would also allow the road to stay open during construction, rather than requiring a year-long road closure with the current design. ***Staff recommends deleting the proposed realignment through the park in favor of implementing minor improvements with fewer impacts.***

The minor improvements recommended by staff would not foreclose the possibility of constructing a realignment proposed by DPWT, should it be deemed necessary in the future. The proposed bridge widening utilizes the existing bridge substructure to allow for the placement of the proposed shared-use trail on the existing abutments. Its grade is not dependent on the proposed realignment to the south.

Truck Traffic

Quince Orchard Road is currently restricted to trucks under 1.5 tons. The Project Prospectus recommended retaining this restriction.

At the public meeting on this project, speakers expressed concern that the design of the proposed bridge would allow tractor-trailers to travel along Quince Orchard Road, and that was the reason the road was being realigned. DPWT staff responded that the bridge was being built to the same standard as most bridges are, but they were unclear as to whether the truck restriction would be continued after construction of this project. ***Staff recommends that DPWT confirm that the existing truck restriction along Quince Orchard Road will be retained after construction.***

Capital Improvement Program (CIP)

While staff comments on Mandatory Referrals do not typically include comments on project costs, this project is being reviewed at the same time as the County Council's Transportation and Environment Committee is reviewing the County Executive's Recommended CIP for FY05-10. Staff therefore has considered the value of the proposed project.

Even if we accept that the realignment through the park would provide the safety benefits that DPWT anticipates, we do not believe that the cost/benefit ratio holds up in comparison to other projects.

The PDF for the project in the County Executive's Recommended CIP shows a total cost of \$8.2 million. At Council staff's request, DPWT has prepared a cost estimate for the project without the realignment through the park, which shows a cost of \$4.4 million.

The difference between these two figures shows that it would cost \$3.8 million to reconstruct the segment of Quince Orchard Road through the park, a segment that has an accident history significantly lower than that of other similar roads statewide. Staff believes that there are more worthy safety improvement candidates that would provide a better use of County funds.

Pedestrian and Bicycle Accommodation

Pedestrians and bicyclists would be well accommodated by the proposed project. A shared-use trail would be constructed on the west side of Quince Orchard Road through the project limits. A continuous sidewalk would be provided on the east side of Quince Orchard Road north of Muddy Branch Park, where almost all of the residential development is. South of the park, where there is very little residential development, pedestrians would use the shared-use trail.

Park Impacts

The proposed project would make Muddy Branch Park much more safely accessible to pedestrians and bicyclists via the proposed shared-use trail on the west side of Quince Orchard Road.

Intersecting with the proposed trail along the road, there is a planned trail along Muddy Branch. The trail crossing of Quince Orchard Road should be at the safest location and staff has told DPWT that the trail will be designed to meet that location. ***Staff recommends that DPWT determine the safest trail crossing location and clearly mark it on all future plans.***

The future trail will also need trailhead parking adjacent to the crossing of Quince Orchard Road. An interim trailhead with a gravel parking lot is recommended to be constructed as part of this project in the Muddy Branch Trail Corridor Plan, which was approved by the Board in January 2002. Given that a small existing gravel lot would be eliminated by the

proposed Quince Orchard Road trail alignment, it is all the more important that the interim trailhead parking lot be constructed. Staff's view is that a staging area will be needed for the proposed bridge construction and that this area can be stabilized and used as the interim trailhead after the completion of this project. The natural surface segment of the planned Muddy Branch Trail between Quince Orchard Road and Darnestown Road is scheduled to begin construction later this year. ***Staff recommends that an interim trailhead gravel parking lot be established at the northwest corner of the bridge as part of this project.***

Whether or not the road realignment is retained in the project, the tributary that joins Muddy Branch west of the road and south of the bridge would be realigned to accommodate the proposed shared-use trail. The stream as it currently exists is an essentially straight channel immediately adjacent to the road and provides little aquatic habitat. The relocated stream will have a more natural geometry and will be located farther from the road so that it can be more adequately buffered on both sides. In addition, the stream will be situated in a better location to provide water to the existing emergent wetland/wet meadow if the trail is constructed adjacent to the road.

Park Planning and Resources Analysis Unit staff feels that the plans are acceptable from a natural resources standpoint, if the roadway realignment is deemed necessary. The plans have been revised several times in response to their recommendations to avoid, minimize, and mitigate impacts to parkland, most particularly in regard to the alignment of the shared-use trail, whose alignment is far more curvilinear than anticipated in the prospectus to ensure that it meets the requirements of the Americans with Disabilities Act (ADA).

Staff believes that one segment of this design should be re-evaluated to ensure that park impacts are minimized. The segment between where the trail alignment leaves the roadway and turns west is all on fill on the side of the valley slope. Moving the trail farther south would better fit the existing topography and would minimize the amount of fill required.

The current design would impact the operations of the Potomac Horse Center in two ways. First, a stormwater management pond would be constructed on one of the paddocks that the center now operates, adversely affecting their operations. ***Staff recommends that the stormwater management pond be moved to the other side of Quince Orchard Road to minimize impacts on the horse center's operations.***

Second, the horizontal roadway curve at the top of the hill just north of the center entrance would be flattened, moving the roadway into the same paddock area and moving the driveway entrance onto the curve. As noted above, DPWT believes that they can address the latter concern but no design has yet been provided for staff review.

Also as noted above, there is an existing equestrian trail just south of Muddy Branch whose crossing needs to be reflected in the design. The 2:1 roadway sideslope needs to be flattened so that horses can traverse it and the crossing needs to have sufficient warning signage and/or striping so that drivers are aware of the crossing.

A park construction permit will be needed to work on park property and should be applied for when the plans reach semi-final stage.

A note must be placed on the plans that "No storage of materials and equipments, and no staging will be allowed on park property without a prior consent from Park Manager or Park Inspector."

The maintenance issue of trail (shared path) on park property will need to be resolved. Staff recommends that DPWT obtain the permanent easement from M-NCPPC to construct and maintain the trail on park property. They can contact Bill Gries to obtain this easement from Park and Planning.

The environmental impacts that would be required by the proposed project to the forested park property are substantial and are discussed in **Forest Conservation** below.

Areas Outside the Park

Quince Orchard High School

As noted above, the segment of Quince Orchard Road around the high school has the highest rate of accidents in the project limits. The project includes the construction of an island at the northern high school driveway to prevent left turns, forcing all drivers wanting to make this movement to do so from the southern driveway, which is farther from the intersection of Darnestown Road and away from traffic turning left out of the commercial establishments.

The median between the northern and center driveways would be widened and lengthened to include a pedestrian refuge. A raised crosswalk would be provided across Quince Orchard Road.

A median would be constructed between the center and southern high school driveways. All medians would be well-landscaped.

Staff strongly supports all the proposed improvements at the high school.

Wonderview Way

The proposed project would reduce the crest curve at Wonderview Way that currently causes a safety problem because of less-than-necessary sight distance. ***Staff supports this improvement.***

Dufief Mill Road

A 400-foot long auxiliary lane is proposed from Quince Orchard Road to Dufief Mill Road. ***Staff believes that this improvement appears to be in excess of what is required and recommends that DPWT consider reducing its length.***

Environmental

The proposed road improvement project begins at MD 28, passes through Muddy Branch Stream Valley Park and past the Potomac Horse Center, and terminates at Travilah Road. Park property affected is approximately ten acres, bounded by the mainstem of Muddy Branch, the Pepco right-of-way, and Quince Orchard Road. Environmental issues associated with proposed changes to this road are concentrated within the stream valley park.

The lower reaches of Muddy Branch stream valley are unique in their canyon-like character of wide, flat floodplain surrounded by extremely steep slopes. Although other Muddy Branch crossings such as Esworthy Road take advantage of infrequent opportunities to avoid these sensitive features, Quince Orchard Road exists in an area where there are both steep slopes, and a wide meandering floodplain. These present the greatest challenges to minimizing environmental impacts when attempting to improve this road. Changes to the road within the Park should be limited to those necessary to make the road safe for motorists and other park users.

Many older roads approached major stream crossings by following tributary stream valleys into the main channel stream valley. This was in order to take advantage of a grade that is less steep than if the valley were approached at a perpendicular angle. This is the case with the existing Quince Orchard Road. Minimizing the length of road within the sensitive areas to avoid the stream buffer has been studied and found to be infeasible both economically and environmentally. As a result, a more limited approach is being pursued in this less-than-ideal location.

At the bottom of the slope approaching Muddy Branch, the road is parallel to a small tributary leading to the mainstem. This small stream, together with a wide meander of the main channel in the general vicinity of the road cause the floodplain to be very wide in this location (780 feet) and 1,400 linear feet of the road is within the stream buffer. Currently the road is directly adjacent to this existing stream on one side and a steep embankment on the other side, leaving no room for adjustments to the current road width and alignment. In order to improve the road as proposed, approximately 730 feet of the parallel tributary must be relocated from 20 to 50 feet from its existing location. This will require the removal of floodplain wetlands and streamside trees.

Forest Conservation

The preliminary forest conservation plan meets the requirement of the law, although the forest impacts in the park cause concern.

Forest impact is concentrated on the slope near the Horse Center entrance leading down to the stream valley bottom. The vertical realignment would require between five and ten feet of fill and will leave 2:1 slopes on the downhill side of the road. Changes of this nature necessitate a wide clearing of forest (up to eighty feet on the slope) to accommodate road-building equipment and the new topography of the slope. *Staff recommends that DPWT minimize, to the extent possible, the amount of re-grading and fill proposed on the slope adjacent to the Potomac Horse Center.*

The horizontal realignment in the floodplain area also would require the removal of existing forest. This totals approximately one acre of forest. Thirty-three trees with a diameter-at-breast-height (DBH) of over 24 inches would be removed and "critical root zone impacts" to an additional twenty-eight trees over 24 inches DBH, as well as the removal of many smaller trees. This would constitute a significant loss of park natural resources in this area. It would also create approximately 500 feet of new forest edge, creating the opportunity for invasive plants to become established.

In areas outside the park, impacts include the removal of 26 individual specimen trees along the roadside. Mitigation for forest loss includes one acre of afforestation within the park and individual tree planting along the roadside. ***The M-NCPPC Plan Inspector and Forest Ecologist must be involved in field-locating the limits of disturbance for the road and in choosing the final trail alignment in order to minimize the loss of forest and individual specimen trees.***

If the proposed realignment through the park does go forward, care must be taken to minimize the forest impact and tree loss.

Stormwater Management

Previously non-existent stormwater management is being added in the form of two dry ponds with sand filter and bio-filtration. The new drainage pattern of the road will allow stormwater to be treated prior to entering Muddy Branch. The trail within the park is being designed in a way that will maximize sheet flow from the surface, thus minimizing concentrated and possibly erosive stormwater runoff. A concept plan for stormwater management was approved by the Department of Permitting Services on November 17, 2003.

Staff is concerned that the stormwater runoff at one location, in the ditch adjacent to the proposed shared-use trail at Station 408+00 RT, does not appear to be controlled and may create a point discharge with a velocity that will erode the steep stream valley slope. DPWT should evaluate the proposed design to ensure that this does not occur.

Water Quality

This road is located entirely within the Muddy Branch watershed and crosses through four subwatersheds: Quince Orchard Knolls, Potomac Grove, Upper Sandy and Mainstem above Turkey Foot. These subwatersheds range from good to fair in water quality. Concerns for water quality include the potential for erosion on the newly graded slope of the road and the trail. However, new stormwater management facilities will provide the opportunity to improve previously untreated runoff from the road surface.

Noise

The proposed plan for this site should not increase the noise levels already associated with Quince Orchard Road if truck traffic continues to be restricted.

Dust and Air Quality

There should be no objectionable fumes, dust, or odors resulting from the proposed use.

PUBLIC OUTREACH

DPWT held a public meeting on December 18, 2003, attended by about 70 people. Those who spoke were unanimously in favor of the improvements outside the park, although there were some concerns about possible turn restrictions from the commercial center opposite Quince Orchard High School. The majority of speakers were against the proposed improvements in the park, believing them to be unnecessary, and likely to increase speeding through the park, which would result in more accidents.

At the end of the meeting, DPWT said that the design team would meet to consider people's comments and decide how to proceed with the project. When asked whether the realignment through the park would be reconsidered however, the answer was no, that this was the best solution in DPWT's engineering judgement. Planning staff was not invited to participate in the design team's meeting following the public meeting.

KN:LC:CM:RCH:JZ:gw

mno to MCPB re MR Quince Orchard Road