National Park Service
U.S. Department of the Interior

Denali National Park and Preserve
Alaska

Finding of No Significant Impact

For Construction of Intervisible Pullouts and other Improvements Between Mile 73 and Mile 86 on the Denali Park Road

August 2009

Recommended: Paul R. Anderson 8/11/09
Superintendent, Denali National Park and Preserve — Date

Approved: 8/11/09
Regional Director, Alaska — Date

FINDING OF NO SIGNIFICANT IMPACT

Construction of Intervisible Pullouts and Other Improvements Between Mile 73 and 86 on the Denali Park Road

Denali National Park and Preserve, Alaska
August 2009

The National Park Service (NPS) prepared an environmental assessment (EA) to evaluate construction of numerous improvements to the park road between Mile 73 and 86 on the Denali Park Road west of the Eielson Visitor Center in Denali National Park (DENA), Alaska.

The NPS has selected Alternative 2, the preferred alternative, Rehabilitation of the Park Road between Mile 73-86, with the mitigation measures. Under this alternative, the NPS, in cooperation with the Federal Highways Administration, will improve existing vehicle pullouts, add 17 new pullouts, replace culverts, add two interpretive pulloffs, and add gravel wear surfacing material for the section of park road with the highest accident rate. Mitigation measures have been integrated into the proposal.

Responses to public comments are found in Appendix A.

ALTERNATIVES

Two alternatives were evaluated in the EA.

Alternative 1, No Action

Under Alternative 1, the existing situation would continue and the NPS and FHWA would not complete the proposed road rehabilitation between mileposts (MP) 73 and 86. Existing use and maintenance of the road would continue. Annual maintenance activities of adding crushed gravel or pit run material to maintain a safe driving surface would continue. Buses and other vehicles would follow the Rules of the Road regarding yielding, so that one bus (usually eastbound) would have the right of way and the other vehicle would need to find a place to safely pull over to let the bus pass. Brush crews would continue to clear brush alongside the road according to the directions in the Denali Road Maintenance Standards

Alternative 2, Rehabilitation of the Park Road between Mile73-86 (Preferred Alternative).

Under Alternative 2 the NPS and FHWA propose to improve safety for all users of the park road between MP 73 and mile 86 through the improvement of existing pullouts, development of 17 new passing pullouts and 2 interpretive pullovers, and improvements to the road surface. Improvements to the road are based on the park's Road Design Standards, which is a quantitative version of the Road Management summary given in the park's Entrance Area and Road Corridor Development Concept Plan/Environmental Impact Statement. The general concept is that the park road west of the Teklanika River would remain a variable width one lane rustic road with pullouts.

Of the 75 pullouts and road edge improvement areas, about 23% (17) would occur where there presently is no pullout. The others would be constructed at sites where there are already widened spots that are used for passing.

Intervisible Passing Pullouts

The core of this project is that the NPS would rehabilitate the park road for five miles beginning at MP 79.2. Approximately 50 intervisible passing pullouts would be formalized, most of them on top of existing wide spots. The pullouts would include a middle section typically 60 feet long at 24 feet wide. Pullouts would be intervisible, so that buses and other vehicles travelling the road at the speed limit have a sufficient safety margin when meeting other vehicles. In many cases the sight distance issues for a west-bound bus are different than those for an east-bound bus, so that a standard distance between pullouts could not be used.

The road sections tapering into and out of the pullouts would change width at a 1 foot in 10 foot ratio. Thus, if the existing road segment is 19 feet wide, a pullout would start with a 50 foot long taper into a 60 foot long, 24 foot wide (total road width) passing area and continue with a 50 foot long taper back to the existing 19 foot road width. The existing road west of the Eielson Bluffs is never narrower than 16 feet, so the longest individual pullout widening should be 220 feet, including tapers, unless topographic limitations suggest otherwise. Pullouts can also safely be used for wildlife and scenery stops.

Pullouts and improvements would be constructed with heavy equipment, such as 10 and 18 ton end-dumps and belly dumps, motor graders, and either large excavators, backhoes, or front-end loaders to excavate for culvert replacement and spill slope reconstruction and to feed material into the screening and crushing plants. The gravel crushing operation is scheduled for summer 2010 and the road work is scheduled for the summers of 2010 and 2011.

Improve Over-steepened Outside Road Edges

Correct fourteen areas between MP 73 and 79 and nine areas between mileposts 84 and 86 with over-steepened outside edges for safety purposes. When corrected, these sites would be formalized as passing pullouts.

Over-steepened outside edges form when grading operations pull material from the uphill side of the road or ditch and drop it over the downhill side. The over-boarded material is often caught by vegetation and a non-structural (soft) extension of the road prism gets built up through the years. Over-steepened outside edges will be excavated and then built back up at a 1V:1.5 H slope. The outside edges will be built back up in lifts, with each lift compacted to standard specifications before adding the next lift. This method is used to create structural stability in the outside edge. Some of these repairs may extend horizontally to the middle of the road to help tie in to native ground. Material excavated from this embankment work may be reused if suitable, or would be trucked to the Mile 70 pit for screening and re-use.

Approximately 9,500 cubic yards (cy) of material would be excavated from the roadway during the project. This material would be put into dump trucks with a front-end loader and taken to the

Mile 70 pit for screening and reuse or to be placed in the pit as reject material and used for pit reclamation. Most of the trucks carrying excavated material from the road to the pit would return to the road project site with material for the roadwork.

Interpretive Pulloffs

As part of the project two additional interpretive pullouts would be created along the road. Pullovers are defined as widened road sections onto which a bus can pull and be completely off the road travel surface. One pulloff would be 26 feet wide near the edge of a pond at MP 81.0 (first pond west of Picnic Rock). The other pulloff would be 34 feet wide. That pulloff would be at MP 83.5, where there is a good view of the wetlands between the Wonder Lake Campground and the Big Timber area.

Road Grader Pullouts

The project would expand two road grader pullouts at MP 80.7 and MP 81.7 an additional 10 feet x 30 feet to provide space for turning equipment around.

Road Surface Improvements

The road surface would be reconditioned in those segments between mileposts 79-84 where no pullout work is happening by loosening the top two inches, reshaping the crown or super-elevation, and adding 2 inches of gravel wear layer, while keeping the existing width of road travel surface. Super-elevation is tilting the whole roadway to help offset centripetal forces developed as the vehicle goes around a curve. An average of ¼ inch of material wears off the road surface during each year.

- Establish a 10% crown to the 4 miles of (relatively) straight sections within the road improvement area
- Establish a 6% super-elevation in the one mile of curves within the road improvement area
- Vary the crown or super-elevation as necessary to connect the curves and straight sections
- Super-elevate short radius corners that are now crowned in at least 3 locations.
- Maintain a 22-foot width in 5 short segments totaling 1,130 feet.
- Add 4 inches of gravel wear layer to the road surface in the pullout work areas.

Equipment used would be the same used to construct the pullouts.

Culverts

Replace all (about 24) culverts in the project area. The smallest replacement culvert would have a 24-inch diameter. Larger culverts would be placed where small streams reach the road. The replacement of 4 deep culverts would close the whole road for at least 6 hours and would be scheduled to be done at night. Equipment used would be the same used to construct the pullouts.

Road Protection Device

Replace a road protection device at the outlet of a beaver pond at MP 81.9. This would require draining the pond to the level of the lower existing culvert. The new device would be a long 24" diameter culvert under the road elbowed to a vertical 24" culvert that would extend to the desired (existing) height of the pond. The upright section of pipe would be guyed to the pond bottom. Excess water in the pond would go into the device rather than raise the pond against the side of the road prism. A backup 24" culvert would be installed in the road bed above the device culvert in case the beavers plug up the main culvert. The pond would be partially drained to replace the two existing culverts and old protection device and would refill within a day or two. No beavers have occupied this pond during the last couple of years.

Gravel Sources

Gravel for the project would come from Toklat at MP 54 and the MP 70 Pit, two sites approved in the 2003 park Gravel Acquisition Plan, and from material excavated from the Eielson Visitor Center Project and stored at the MP 74.7 Pit, material excavated from the park road during the project and reused, and material excavated from project area road back slopes. Approximately 4,656 cy of select borrow would be needed from MP 70 pit and 8,165 cy of roadway aggregate would be needed from Toklat. Approximately 715 trips would be needed to haul the gravel if 18 cy belly dumps are used. Gravel hauling would occur between 10pm and 6am. Gravel processing would occur for this project at Toklat and at the MP 70 Pit.

As part of the project approximately 22,000 cy of gravel would be removed from the active floodplain of the Toklat River per the guidelines for that removal in the Gravel Acquisition Plan. The gravel would be stockpiled below the Toklat Road Camp and a 400 cubic yard/hour crusher would be set up to process the material into bindable surfacing material. At the Mile 70 pit a screening plant would be set up to process the pit run from the pit and to salvage good material from road and back slope excavation as well as from the stockpiled material left over from the Eielson Visitor Center excavation.

Water Sources:

Four sites have been identified as water sources for the project. A pond close to the road at MP 80.8 (just west of "Picnic Rock)," the pond at MP 81.9 with the beaver (protection) device, the stream crossing under the road at MP 81.6 (Raina Creek), and the stream downhill of the Mile 70 pit. A gas-powered pump would be set up near the water to pump into a 3,000 gallon water truck. Some water may be used to control road dust, and the rest would be used to compact the lifts when rebuilding the outside edges of the road.

PUBLIC INVOLVEMENT

The EA was issued for public review and comment from June 9, 2009 to July 9, 2008. The EA, or notices of the EA's availability, were sent by mail or email to over 200 government agencies, interest groups, and individuals. The EA was posted on the national NPS web page for public review NEPA documents – Planning, Environment, and Public Comment (PEPC) – and on the

park's webpage. The park issued a press release about the availability of the EA and the open comment period on July 9, 2009. Four written comments were received. Two comments were generally in favor of the preferred alternative, one comment supported the No Action alternative, and one comment proposed a different approach to the design standards inherent for this section of the park road.

The public comments received did not change the conclusions in the EA about the environmental effects of the action. The NPS responses to substantive public comments are found in Appendix A.

DECISION

The NPS decision is to select Alternative 2, Rehabilitation of the Park Road between Mile73-86, along with the mitigating measures.

Mitigating Measures

The following mitigation measures apply to the selected Alternative 2, Rehabilitation of the Park Road between Mile73-86:

Vegetation. Construction limits would be marked at all work areas to help insure that vegetation outside the areas to be rehabilitated does not get trampled or torn up during the work. Any revegetation work would be accomplished by using locally-collected seeds or saved tundra mats. Silt fences would be installed to diminish erosion and turbidity where the larger culverts are being replaced, or at the base of expanded fill slopes in wetlands.

All construction equipment would be pressure-washed to remove non-native plants before entering the park. Areas disturbed during construction would be monitored in the coming years for exotic plants and any found would be removed.

Air Quality. Dust would be produced by the additional truck and construction traffic on the gravel park road. These impacts would be partially mitigated by use of a water truck during construction activities to keep the dust down.

Wildlife and Habitat. The NPS would follow established guidelines in the park's bear-human conflict management plan. The plan requires contractors and staff to use bear-proof containers for food and refuse and sets up guidelines for temporary closures. Vegetation clearing would be done outside of the May 1 to August 1 nesting season so as to not impact nesting or fledging birds.

Cultural Resources. Surveys for cultural resources have taken place in the road corridor over the past two decades. If previously unknown cultural resources were located during construction, the project would be halted in the discovery area until cultural resource staff could determine the significance of the finding. Mitigation standards would be established to limit any damage to the cultural information present at the sites.

Visitor Use and Recreation. Visitors, Kantishna lodge owners, and bus drivers would be advised through in-park announcements, programs, and publications that there would be temporary inconveniences from construction work on the road. Culvert replacement or other work that would close the road for hours would be scheduled to be done at night.

Daytime trucking from stockpile locations between milepost 80 and milepost 84 to work locations between those mileposts will be allowed to take place within the scheduled "windows" when no buses are scheduled to be traveling through the area. Trucks may immediately follow a bus travelling the same direction through the section as long as no opposite traveling bus is scheduled to be in the section.

Westbound oversize vehicles may leave Toklat no earlier than 8:00 pm and eastbound oversize vehicles must reach Toklat no later than 7:30 am. Oversize traffic between Teklanika and Toklat will be allowed in the normal 10:00 pm to 6:00 am window.

Daytime project work (culvert install prep work, cleanup/shaping work, surfacing, etc…) between milepost 80 and milepost 84 that disrupts the road structure and surface will also be allowed to take place. Cumulative maximum allowable traffic delays shall total NO MORE than 5 minutes westbound and 5 minutes eastbound. NOT 5 minutes at each work site. The road shall be safe and passable for traffic.

Daytime project work, excluding trucking, that disrupts the road structure and surface on specific locations outside of the area between milepost 80 and milepost 84 will be allowed. Accumulative maximum allowable traffic delays shall total NO MORE than 5 minutes westbound and 5 minutes eastbound. NOT 5 minutes at each work site. The road shall be safe and passable for traffic.

Work throughout the project area off the road which does not disrupt the road surface, make the road structure unsafe or cause bus delays may be done at any time.

In all cases traffic control and safety shall be maintained. The Contractor shall include proposed daytime work protocols in its Quality Control Plan and its Safety Plan to show how it will monitoring and controls will be implemented.

Rationale for the Decision

The selected action (Alternative 2) will satisfy the purpose and need of the project better than other alternatives because it will improve safety on the park road while retaining as much of the road's rustic character as possible.

Alternative 1 (No Action) would not accomplish the purpose and need of the project. It would continue the lack of sufficient intervisible pullouts between MP 79 and 84 on the park road which requires a high level of vigilance by all vehicle drivers. The opportunity to encourage drivers to pull off the travel way and allow passengers to get out of their vehicle would remain limited due to the limited pulloffs along this section of road.

Significance Criteria

The preferred alternative (Alternative 2) will not have a significant effect on the human environment. This conclusion is based on the following examination the significance criteria defined in 40 CFR Section 1508.27.

(1) Impacts that may be both beneficial and adverse. A significant effect may exist even if the Federal agency believes that on balance the effect will be beneficial.

The EA evaluated the effects of Alternative 2 on vegetation, soils and wetlands, wildlife habitat, cultural resources, visitor use and experience, and park management. As documented in the EA the effects of the proposed action would range from negligible to moderate depending on the resource. There would be no significant restriction of subsistence uses.

(2) The degree to which the proposed action affects public health or safety.

The selected alternative would have a moderate beneficial impact on park management by providing visitors and employees with an additional safety margin while traveling this section of the park road. Providing intervisible pullouts for buses (the park road design vehicle) would not insure that all vehicle travel on the road would be safe. It would, however, provide a place for drivers to pull over when travelling the speed limit and not be surprised by a vehicle coming the other way. That vehicle could otherwise easily be hidden by the rolling landscape, and rather than widen or straighten the whole road this alternative would provide those pullouts so that drivers are not surprised by oncoming traffic and find themselves with no place to pull over.

(3) Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetland, wild and scenic rives, or ecologically critical areas.

The road improvements would be located in a national park. The EA evaluated the effects of the road improvements and concluded that the impacts would be moderately beneficial to minor adverse.

(4) The degree to which effects on the quality of the human environment are likely to be highly controversial.

The effects on the quality of the human environment would not be controversial. The NPS sent the EA to over 200 agencies, organizations, and individuals for public review. Only 4 comment letters were received. The environmental analysis concluded that the proposed road improvements would have from moderately beneficial to minor adverse impacts on park resources. The commenters did not question these findings.

(5) The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.

The environmental effects of the selected alternative (Alternative 2) do not involve unique or unknown risks.

(6) The degree to which the action may establish a precedent of future actions with significant effects or represents a decision in principle about a future consideration.

The 73-86 road improvement project represents a continuing section by section improvement of the park road safety and structural condition, as detailed in the 1997 DCP/EIS and 2007 Denali Park Road Design Standards.

(7) Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.

The EA for the Mile 73-86 park road improvement project evaluated improvements to that section of the park road. Additional rehabilitation projects are planned for other sections of the park road as funding permits. The conceptual outline for this work was evaluated in the 1997 DCP/EIS, where the work was rated as less than a significant impact.

(8) Degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.

The selected alternative would not adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places. The park road has been determined eligible for the National Register and this project was evaluated as having no adverse impact on historic properties.

(9) The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.

The selected alternative would not adversely affect an endangered or threatened species or its habitat.

(10) Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.

The selected alternative (Alternative 2) would not violate any Federal, State, or local law.

FINDINGS

The levels of adverse impacts to park resources anticipated from the selected alternative will not result in an impairment of park resources that fulfill specific purposes identified in the establishing legislation or that are key to the natural or cultural integrity of the park.

The selected alternative complies with the Endangered Species Act, the National Historic Preservation Act, and Executive Orders 11988 and 11990. There will be no restriction of subsistence activities as documented by the Alaska National Interest Lands Conservation Act, Title VIII, Section 810(a) Summary Evaluation and Findings.

The National Park Service has determined that the selected alternative does not constitute a major federal action significantly affecting the quality of the human environment. Therefore, in accordance with the National Environmental Policy Act of 1969 and regulations of the Council on Environmental Quality (40 CFR 1508.9), an environmental impact statement is not needed and will not be prepared for this project.

ATTACHMENT A

NPS RESPONSES TO PUBLIC COMMENTS AND ERRATA
for the
Denali National Park and Preserve EA for
Construction of Intervisible Pullouts and Other Improvements
Between Mile 73 and 86 on the Denali Park Road

In response to the environmental assessment, the NPS received four comment letters. Described below are the substantive comments and the NPS responses.

1. Comment #1. Individual: The road is fine as is and is safe to travel.

NPS Response #1: While the NPS believes that the park road is safe to drive, this section of road has the highest accident rate on the park road and does not meet the standards for intervisibility of passing pullouts decided upon by the 1997 DCP/EIS and 2007 Road Design Standards.

2. Comment #2. Environmental Group A: Group wants to ensure that adequate measures (such as washing construction vehicles before they enter the park) are in place to reduce the risk of the spread of exotic species, especially if contractors from outside the park are used.

NPS Response #2: We concur. It is a normal part of our construction contracts that measures to prevent invasive plant colonization include: pressure washing construction equipment and vehicles prior to entering the park. The gravel sources for this project are in-park sources and the park would continue its existing exotic plant eradication program, both at the gravel source areas and on the fresh slopes after construction, as necessary.

3. Comment #3. Environmental Group A: Two additional alternatives we would have liked to have seen are 1) fewer pullouts (our reaction is that 75 intervisible pullouts in 13 miles are a bit excessive), and 2) widening the road to a consistent width.

NPS Response #3: An alternative based on fewer pullouts would not have provided intervisible pullouts, as required by the 2007 Park Road Standards. Certainly some corners or sight distance situations are worse than others, but the standards will no longer rely on buses using the ditch during an awkward pass or being required to back up because there is no pullout. The 50 pullouts to be formalized in the 4.8 mile core of the project, from Mile 79.2 to Mile 84.0, represent an average of 10 per mile or about one every 500 feet. We don't find this to be excessive. The standard says: "To be clearly visible and easily reachable from one pullout to the next they would be placed approximately 300 feet to 700 feet apart in areas where the roadway width is less than 24 feet". An average of one pullout every 500 feet falls within that standard.

Widening the road to a consistent width also does not match the 2007 Road Design Standards. This section of road is described in the 1997 DCP/EIS as being "...a variable width one lane road with two-lane sections and pullouts." A variable width is part of the road character to be preserved (see also response to Comment #9).

4. Comment #4. Environmental Groups A and B: We would be supportive of any possible changes that would reduce the number of pullouts or make them smaller, lessening the road's impact on the landscape. Could the belly of the pullout be 40' long and still do its job? Will the extra long pullouts (up to 220 feet) actually encourage moving passing?

NPS Response #4: Of the 73 designed pullouts, 59 have a belly - or middle section at 24 feet wide – that is 60 feet long, ten are longer, and 4 are shorter. The ten longer ones are generally at long corners with limited site distance where there are a series of surprise points for a driver, and the only intervisible option to a continuous 24-foot section would be a major leveling of the back slope to increase sight distance. The approach to use a continuous 24-foot width on extreme corners was also applied in 1997 to the initial 15 "problem" corners identified west of Mile 70 in Appendix C of the draft DCP/EIS. We, however, agree that a shorter belly for the pullouts would provide a sufficient margin for safety, given that each pullout has a tapered entrance and exit leading to and from the temporary standing spot for the 40-foot long bus (design vehicle). We will establish 45 feet as the standard length for the 24-foot wide section of an uncomplicated pullout.

5. Comment #5. Environmental Group B: Rehabilitate former accident sites and the 20 sites identified in 2004 using pullouts and edge strengthening. Use reduced speed between pullouts to extend sight distance.

NPS Response #5: This comment pulls together all elements of the three alternatives dismissed from further consideration in the EA. As stated there, these measures, while each would add safety to the operation of vehicles on the road, would not bring the whole section of road up to the standard of fully intervisible pullouts decided upon in the 1997 DCP/EIS and 2007 RDS. Lowering the speed limit when a vehicle is not driving by a pullout would not create a manageable or enforceable standard.

6. Comment #6. Environmental Group B: Consideration should be given to additional parking areas or pulloffs where a bus could stop, bus passengers could safely leave the bus for a few minutes and then reboard.

NPS Response #6: Two additional interpretive pulloffs are part of the selected alternative for this section of road. The NPS will monitor the need for additional pulloffs along the whole road and may propose a more comprehensive plan in the future.

7. Comment #7. Environmental Group B: Is the fact that this project is funded by the Recovery Act keeping it from being phased in?

NPS Response #7: The project was in line to be funded through congressional appropriations to the Federal Highways Administration for use in parks. Combining the appropriations from one or more years into one package was part of the original plan so as to keep mobilization costs down and reduce the number of years of contractor activity in the area. The Recovery Act funding solidified that approach.

8. Comment #8. Environmental Group B: What is the effect of this project on law enforcement, average speed driven, hiking opportunities, Kantishna, and additional bus traffic and are there cumulative effects?

NPS Response #8: This project should have a negligible effect on vehicle speed in that speed limits are still in place, the majority of users are professional bus drivers on a regulated schedule, the drivers know that animals can appear anywhere on the road or off to the side, and law enforcement will continue.

Hiking use is still dictated mostly by the terrain, user groups, and costs involved. None of those will change. Two more pulloffs are to be constructed as part of this project and the need for others along the road will be evaluated for future projects.

The NPS plans to do a development concept plan for Kantishna that will be based on ideas already vetted in the 1997 DCP/EIS, 2006 Backcountry Plan/EIS, and in response to new proposals and considerations (e.g. the need for a new west end gravel site). We expect no additional impacts to Kantishna directly or indirectly from this project.

This project will not attract a higher level of road traffic or a different style of bus (design vehicle). The amount and types of traffic on the park road is a major subject for the Vehicle Management Plan/EIS, now in planning stages.

9. Comment #9. Kantishna Lodge Owner: We support a consistent 22-foot width road with sloping shoulders plus pullouts and interpretive turnouts for the section under consideration. According to the 2007 Denali National Park Road Design Standards, variable roadway widths are dictated by terrain and grade and design vehicle geometry. Terrain and grade are not limiting factors for this section, and the design vehicle geometry would be consistent throughout the road corridor when road work has been completed. Aside from recent, excellent brushing work, the section of road under consideration has grown less safe because of increased use and grading procedures that have effectively narrowed the road. From our perspective, something more than definitions based on a backlash from the overkill of Mission 66 road work between the park entrance and Teklanika should guide the future.

We believe that a uniform width 22-foot road would still require passing pullouts. Even if reconditioned, the road edge would still be unreliable in spring and during wet periods in summer and fall.

1. The size and numbers of buses and other vehicles now plying this section of the park road have increased.
2. The documented reasons for the level of vehicle accidents on this section of road include its variable width combined with the road's exceedingly sinuous nature
3. With a 16-foot minimum width, more significant drop-offs from building up the road surface in the proposed reconditioning process and more pronounced "hour-glassing" would result in an even more dangerous road condition than currently exists.

4. With a consistent 22-foot width, buses would not have to pull over to the side to allow another vehicle to safely pass in dry road conditions. Site distances would be slightly improved. Widening would also allow for blending the road into the landscape by flattening cuts and fills.
5. A 22-foot wide road would have a questionable effect on visitors' perception of wilderness.

NPS Response #9: This proposed approach to the design standards for the road in this section does not mesh with the 1997 Record of Decision for the DCP/EIS to retain a variable width one lane road with pullouts. Any hour-glassing that the road has would not be increased by a uniform application of wear surface material. The roadway width would remain the same as under the existing conditions. Under this alternative a significant amount of hour-glassing at the existing used pullouts will be removed when uniform tapers are constructed at the formalized pullouts. Some existing hour-glassing may also be removed outside of pullouts during culvert replacement.

The commenter is correct that the road character quote from the 2007 Road Design Standards says that "…roadway widths are dictated by terrain and grade…" This is probably an overstatement in the Road Design Standards in that the 1994 Road System Evaluation on page 2 says that this is one of the "Items that help define the character of the road beyond MP 30," and the quote or statement does not appear at all in the relevant section of the 1996-1997 DCP/EIS. In some sections along the park road, terrain does limit the choices, or at least the economically feasible choices, for the modern road engineer, but this would not be the case for the park road west of mile 70, at least as far as the widening suggested in this comment. What is controlling for road character is that the park road west of MP 30 remains a variable width road, where the road itself is part of the transition from an urban to a primitive environment. The variable road itself shows its history, not just as a reaction to Mission 66 overkill, but as a national statement of restraint in the face of modern assumptions and uniformity in design. Furthermore, widening this entire reach of road to a structurally sound 22 feet would require an enormous volume of gravel, which is not readily available.

10. Comment #10. Kantishna Lodge Owner: Gravel acquisition is integrally tied to the future safety, character, and design of the park road. More appropriate sites for gravel acquisition might be identified.

NPS Response #10: The NPS is interested in any proposals for new or expanded gravel acquisition sites in the west end of the park. The current approved Gravel Acquisition Plan required us to first use the North Face site (completed), Beaver Pond Terrace (mostly used), and Downtown Kantishna mine tailings (contaminated). The Moose Creek Terrace was to be investigated as a last resort and may also be high in heavy metals.

ERRATA

This errata section provides clarifications, modifications or additional information to the EA and to the selected alternative, Alternative 2. This modification does not significantly change the analysis of the EA and, therefore a new or revised EA is not needed and will not be produced.

1. **Modification. Change the language on page 16 from: "**The pullouts would include a middle section typically 60 feet long at 24 feet wide*"* to: *The pullouts would include a middle section typically 45 feet long at 24 feet wide.*

2. **Mitigating Measures, Page 19**: Insert: *All construction equipment would be pressure-washed to remove non-native plants before entering the park.*