

W. B. A.

AGENDA COVER MEMO

DATE: December 8, 2004

TO: Lane County Board of Commissioners

FROM: Public Works, Engineering Administration

PRESENTED BY: Sonny P. A. Chickering, County Engineer

**AGENDA
ITEM TITLE:** PUBLIC HEARING AND ORDER/IN THE MATTER OF REAFFIRMING THE DESIGN CONCEPT FOR BERNHARDT HEIGHTS ROAD, ADOPTED BY THE BOARD 4 DECEMBER 2002 BY ORDER NUMBER 02-12-4-2, AND APPROVING A MODIFIED ALIGNMENT AND COST ESTIMATE, AND REPORTING ON STATUS OF THE PROJECT.

I. MOTION

THAT THE RESOLUTION AND ORDER BE ADOPTED REAFFIRMING THE DESIGN CONCEPT FOR BERNHARDT HEIGHTS ROAD, ADOPTED BY THE BOARD 4 DECEMBER 2002 BY ORDER NUMBER 02-12-4-2, AND APPROVING A MODIFIED ALIGNMENT AND COST ESTIMATE.

II. ISSUE OR PROBLEM

In 2002, the Board approved a design concept realigning Bernhardt Heights Road. In August of this year, a resident petition was received advocating improvements on the existing alignment of Bernhardt Heights Road instead of constructing the proposed realignment. While proceeding with the approved realignment, staff modified the alignment plan after further analysis. Staff still supports the realignment alternative but with the alignment modification.

Does the Board continue to support the realignment of Bernhardt Heights Road or does the Board wish to give new direction to repair the existing alignment according to the resident petition? In revisiting the design concept for Bernhardt Heights Road, seven different project alternatives are summarized in this memo for the Board's consideration, including the modified alignment and improvements on the existing alignment as advocated by the resident petition.

III. DISCUSSION

A Background.

The Board held a public hearing on November 6, 2002 to consider the realignment of the subject road. On December 4, 2002 the Board amended the 03-07 Capital Improvement Program (CIP) to include the Bernhardt Heights Realignment project under the General Construction Category in the amount of \$160,000 and in the Right-of-Way category for \$15,000. The Board also adopted a project design concept document. The Board Order and Design Concept are included in Attachment 1. The project carried over to the 04-08 CIP document and was listed at the same cost. In May of this year, a revised project cost of \$350,000 under General

Construction and \$35,000 under Right-of-Way Acquisition was added to the 05-09 CIP and adopted by the Board.

Attachment 3 to this memo shows the resident petition advocating repair of the current alignment and dated July 2004. Six people signed the petition. Prior to receiving the petition, staff was exploring a modification to the Board-approved realignment as the preferred alternative. With public uncertainty about the realignment proposal, staff felt it was prudent to revisit the design concept and report on the modified alignment as well as alternatives improving the road on its existing alignment. The resident petition proposal is Alternative 3 below.

B. Analysis.

Bernhardt Heights is a Rural Local Road serving nine private residences with an Average Daily Traffic of 70. Zoning in the area is Rural Residential and Impacted and Nonimpacted Forest Lands. No new residential units are possible in the current 5-acre minimum rural residential zone—a zone change would need to be approved to allow smaller lot land divisions before growth could occur. If a future zone change on the current alignment enabled new development, improvements to Bernhardt Heights may be required of the applicant to add capacity for the additional traffic (this would be very expensive on the current alignment given the steep slopes). Bernhardt Heights dead-ends and does not connect to any other public road outside of the highway.

Since the Board's adoption of the design concept, Public Works has been developing the final design in anticipation of construction next summer. Please refer to the supplemental memorandum (Attachment 2) for an elaborated discussion of what has happened since the Board's adoption of a design concept for this project.

Following are seven alternatives with estimated costs for the Board's consideration.

1) Board Approved Alignment - \$400,000

This is the realignment option adopted by the Board in 2002—See the Design Concept in Attachment 1.

Note the project cost estimate has been refined to reflect more detailed project information. The Board originally considered a cost of \$160,000 for construction, and then it was increased to \$350,000 in this year's CIP. As more information has been gathered, mainly through a topographic survey, more precise estimates of material quantities have been made. As a result, the revised construction estimate has risen to \$400,000 for the Board-approved alignment. The increase in project cost is due, in part, to the large fill embankment needed to traverse the drainage on the new alignment.

2) Modified Alignment - \$330,000

The original alignment chosen by the Board utilizes an existing paved access road owned by Bonneville Power Administration (BPA). The access road is approximately

2,600 feet long. It then transitions to a gravel logging road that accesses adjacent properties. The modified alignment will still use the BPA access road, but it takes a different course at the transition to the gravel section. This alignment can be seen on the aerial photo on page 4. The dark green line represents the original alignment and the yellow line represents the modified alignment.

The modified alignment provides some benefit over the original in the following manner:

- Decreased right-of-way impact to private property owners due to substantially more of the route traversing public property (BPA).
- Potential impacts to threatened and endangered species habitat appear to be greatly reduced.
- Requires a single drainage crossing as opposed to 2 on the original alignment. This reduces excavation work and wetland resource replacement requirements.
- Avoids impacting water sources for residents.
- Helps BPA with a maintenance issue for the main tower. BPA recently sold the Florence trunk line and right-of-ways to Lincoln PUD. In doing so, BPA sold all easement access to their main tower that carries power lines over the Siuslaw River. The modified alignment would be able to provide access to the main tower from a public roadway.
- A major goal of the modified alignment is to take advantage of existing property lines for alignment, thereby reducing impacts to any one property owner.

The cost changes for the project are reflected in the 05-09 Capital Improvement Program (CIP), adopted by the Board on May 12, 2004. The increase in project cost is due, in part, to the large fill embankment needed to traverse the drainage on the modified alignment. The Design Section is looking at ways to reduce the amount of fill required, such as designing steeper road grades and sharper curves beyond standards. Any adjustments that can be made at this crossing will reduce the overall project cost. However, construction of the modified realignment is estimated to cost about \$70,000 less than the Board-approved alignment in Alternative 1.

The current cost estimate does not include any work that may be required related to reclassifying the Bonneville Power Administration access road to a public facility by either the railroad operator or BPA. There is also potential additional cost of \$30,000 associated with protection of BPA tower and pole facilities near the new alignment, depending on requirements set forth by BPA. Staff continues to communicate with these agencies and will refine the necessary agreements accordingly.

The adopted design concept alignment and the new proposed modified alignment are shown in the graphic on the next page.



Alignment seen by B/CC



Proposed Alignment

Other Alternatives Using Existing Alignment

In August 2004 the Department received a petition signed by some of the residents of the neighborhood requesting reconsideration of improving the existing alignment. See Attachments 3 and 4. Attachment 3 is the petition and Attachment 4 is a presentation of a foot-by-foot visual survey of the existing road conducted by Mr. Stanton with suggested isolated road repairs.

In light of the recent neighborhood petition and the Board's deliberation regarding the design concept for this project where concern was raised that we were spending a significant amount of the Road Fund for a few residents, staff would like the Board to consider some other alternatives. Alternatives 3-7 do not propose road realignment, and may or may not reduce project cost as reflected in the current CIP, but should be considered to meet the goal of providing minimal safe access to the residential properties abutting the road.

3) Isolated repairs on the existing road as suggested by resident petition - \$350,000-\$425,000

This option implements isolated repairs detailed in the letter from Mr. Stanton and outlined in Attachments 3 and 4. Improvements include slide stabilization, installation of guardrail, and provision of a 12-foot paved roadway with turnouts. Depending on the surface treatment, the cost is estimated at \$350,000 for rehabilitation of the roadbed with ¾" chip seal or \$425,000 for reconstruction of the roadbed with 2" of asphalt.

This action would help in the immediate term with moderate improvements; however, it must be balanced against anticipated County involvement in future maintenance assuming this will not provide a permanent fix. Past maintenance activities from 1993 to 2003 indicate total maintenance expenditures of \$128,000. In comparative terms, this equates to about \$36,500 per mile annually, while countywide maintenance costs on rural local roads are typically around \$5,300 per mile annually.

The cost of implementing Alternative 3 is roughly the same as the realignment options, so no real cost advantages are gained. However, this seems to have greater public support and avoids possible complications working with outside agencies compared to the realignment option. Any repairs to the existing road would be monitored over time to gauge their effectiveness.

4) Reconstruct existing road to County standards - \$885,000

To bring Bernhardt Heights up to current Rural Local Road standards, the pavement width would need to be widened to a minimum of 18 feet from its current width of 12-14 feet. The road base would also need to be upgraded to meet specified County standards. At an estimated \$885,000, reconstruction of the 0.35-mile section of roadway is the most expensive option. The cost is much higher than typical rural reconstruction projects due to the steep slopes and large amount of excavation required to widen and stabilize the road base.

This option requires additional geotechnical analysis to ensure a stable, widened road base could be established on the existing alignment. Costs could fluctuate

depending on the amount of excavation required and, assuming reconstruction would necessitate closure of the road, the need to provide safe alternative access to residences during the construction period.

5) Fix slide and change road status to Local Access Road - \$250,000

Fixing the slide through maintenance actions as identified by the County would enhance the immediate term stability and safety of the roadway at a lower cost. The disadvantage of this option is the possibility of continued maintenance costs associated with the longer-term uncertainty of the existing alignment.

In light of this, it is possible to convert a County road to a Local Access Road (LAR). The County typically does not spend Road Fund dollars on LARs, thereby shifting the burden of future maintenance actions to the property owners served by the road.

Lane Manual 15.300 allows for withdrawal of County Road status under certain circumstances. Applicable circumstances include roads that are unusually difficult to maintain because of substandard road width, right-of-way width, or steep topography that may result in excessive cost and liability exposure.

The minimum road width standard for an LAR is 12 feet with turnouts for 1-3 parcels served or 18 feet with no turnouts for 4 or more parcels. The Bernhardt Heights right-of-way is contained within 3 parcels, but actually serves more than these 3 properties. The LAR standard for travel surface may be gravel or pavement.

As an LAR, Bernhardt Heights would still be a public road, and while Lane County is not liable for failure to improve or repair an LAR, Lane Code 15.010(35)(e)(v) specifies that the County may still spend Road Fund money if it determines that the work is an emergency or if the public use of the road justifies the expenditure and is authorized by the Board. Consequently, future expenditures may be directed to Bernhardt Heights if deemed necessary.

The estimated cost of \$250,000 is for slide repair only and does not reflect staff time for processing the removal of Bernhardt Heights from County Road status.

6) Fix slide and vacate road - \$250,000

This option provides the same repairs as Alternative 5 above, but upon repair of the slide area, vacation would remove the road from its public status. The Board may consider road vacation following the procedures of Lane Manual 15.300. All future maintenance would then be a private matter without the possibility of expenditure from the Road Fund. Creation of a homeowners association or similar structure would be recommended to establish joint ownership and maintenance responsibility of the roadway.

Road vacation may be considered where little need exists to be part of the County Road System. The same circumstances used to consider conversion to an LAR from Lane Manual 15.300 apply to road vacations, as discussed in Alternative 5 above. Vacation is processed through the Surveyors office, and a public hearing is required allowing all interested parties to testify to the Board before a decision is made.

The estimated cost of \$250,000 is for slide repair only and does not reflect staff time for processing the road vacation.

7) Do nothing - \$0

Lack of action would leave Bernhardt Heights in its substandard condition and possibly precipitate degradation of the road in the slide area. Selection of this option would be based on the assumption that road conditions will basically remain static and not get any worse. However, going with the status quo increases the future possibility of complete road failure/closure as well as liability exposure to the County if conditions do indeed worsen.

C. Alternatives/Options.

- **Reaffirm the Board-adopted alignment for Bernhardt Heights (Alternative 1).**
- **Modify the adopted alignment as shown in Exhibit A to the attached Board Order (Alternative 2).**
- **Reconsider the design concept for Bernhardt Heights and adopt a different alternative (Alternatives 3 through 7).**

D. Recommendation.

Realignment Alternative 2 – Realign Bernhardt Heights Road using the modified alignment proposal

IV. IMPLEMENTATION/FOLLOW-UP

Staff will inform the residents of the Board's action.

ATTACHMENTS

Board Order for Alternative 2 with Exhibit A modified alignment

Attachment 1 - Board Order 02-12-4-2 with Attachments – Order adopting a Design Concept and Findings

Attachment 2 – Bernhardt Heights supplemental memo

Attachment 3 – Bernhardt Heights Resident Petition

Attachment 4 – Visual Survey and Suggested Isolated Repairs from Mr. Stanton

**IN THE BOARD OF COMMISSIONERS OF LANE COUNTY
STATE OF OREGON**

ORDER NO.) IN THE MATTER OF REAFFIRMING THE DESIGN
) CONCEPT FOR BERNHARDT HEIGHTS ROAD,
) ADOPTED BY THE BOARD 4 DECEMBER 2002 BY
) ORDER NUMBER 02-12-4-2, AND APPROVING A
) MODIFIED ALIGNMENT AND COST ESTIMATE.
)

WHEREAS, Bernhardt Heights Road, MP 0.0 TO MP 0.35, has been approved with an increased funding amount of \$385,000 through adoption of the FY 2005-2009 Capital Improvement Program in May 2004; and

WHEREAS, the Bernhardt Heights Road Design Concept and Findings was originally adopted by the Board on December 4, 2002 by Order No. 02-12-4-2; and

WHEREAS, as County staff proceeded toward construction of the Bernhardt Heights Road project as authorized by the Board, additional analysis produced a modified alignment plan as shown in Exhibit A; and

WHEREAS, the modified alignment was presented to the Board at the December 8, 2004 public hearing; and

WHEREAS, the Board reaffirms the findings of the 2002 design concept in support of realigning Bernhardt Heights Road; and

WHEREAS, the Board supports modification of the 2002 design concept realignment, as shown in Exhibit A at an estimated construction cost of \$330,000; and

WHEREAS, the Board concurs in the necessity of the improvement and believes that the proposed project is most compatible with the greatest public good and the least private injury; **NOW THEREFORE, BE IT**

ORDERED, that the Board approve the modified alignment from Exhibit A and incorporate it into the Design Concept and Findings adopted by the Board in December 2002 by Order No. 02-12-4-2 for the improvement of Bernhardt Heights Road; **AND, BE IT**

RESOLVED AND ORDERED, that staff prepare a right-of-way plan necessary to construct the road; pursue all necessary planning actions; acquire right-of-way and prepare plans and specifications for improvement of Bernhardt Heights Road, pursuant to this Order and Order No. 02-12-4-2, which contains the original Board authorization and attached Bernhardt Heights Road Design Concept and Findings.

DATED this _____ day of _____ 2004.

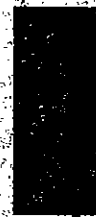
11-23-04
[Signature]

Bobby Green, Sr.
Chair, Lane County Board of Commissioners



Alignment seen by B/CC

Proposed Alignment



PASSED

IN THE BOARD OF COMMISSIONERS OF LANE COUNTY
STATE OF OREGON

ORDER NO.
02-12-4-2

) IN THE MATTER OF AMENDING THE FY 03 TO FY 07
) CAPITAL IMPROVEMENT PROGRAM (CIP) TO INCLUDE
) BERNHARDT HEIGHTS ROAD; SETTING A DATE FOR
) PUBLIC HEARING; APPROVING A PROJECT DESIGN
) CONCEPT FOR THE REALIGNMENT OF BERNHARDT
) HEIGHTS ROAD BASED ON THE DESIGN CONCEPT IN
) EXHIBIT B; AND AUTHORIZING STAFF TO PREPARE A
) RIGHT-OF-WAY PLAN NECESSARY TO CONSTRUCT
) THE ROAD, PURSUE ALL NECESSARY PLANNING
) ACTIONS AND PREPARE PLANS AND SPECIFICATIONS
) FOR REALIGNMENT OF SAID ROAD.

WHEREAS, the realignment of Bernhardt Heights Road has not been approved for funding through adoption of the FY 2002-03 through FY 2006-07 Capital Improvement Program; and

WHEREAS, on December 13, 2000 the Roads Advisory Committee reviewed the public meeting record and the report prepared by County staff, and adopted a recommendation specifying a realignment concept for Bernhardt Heights Road; and

WHEREAS, the recommendations and findings were mailed to property owners within the project area; and

WHEREAS, the Board held a public hearing on November 6, 2002 to consider realignment of the subject road; and

WHEREAS, the Board has determined it is necessary and in the public's interest to acquire fee or other interests in certain properties, as listed in EXHIBIT A, attached hereto and made a part hereof, from owners and others as their interests may appear of record to serve the needs of Lane County, and that the public welfare will be benefited by the realignment of said road and the Board being fully advised; and

WHEREAS, the Board has concurred in the necessity of the realignment and believes that the proposed project is most compatible with the greatest public good and the least private injury; **NOW THEREFORE, BE IT**

ORDERED, that the 03-07 CIP be amended to include the Bernhardt Heights Realignment project under the General Construction Category in FY 03-04 in the amount of \$160,000 and in the Right-of-Way category in FY 03-04 in the amount of \$15,000; **AND, BE IT**

ORDERED, that the Board approve the project design concept identified in EXHIBIT B for realignment of Bernhardt Heights Road, based on the findings in EXHIBIT B; **AND, BE IT**

ORDERED, that the Board delegates authority for determination of all other project design standards not identified in the design concept, and exceptions to design standards, to the County Engineer consistent with this Order; **AND, BE IT**

ORDERED, that staff prepare a right-of-way plan necessary to construct the road; pursue all necessary planning actions; acquire right-of-way and prepare plans and specifications for realignment of said road pursuant to this order, **AND, BE IT**

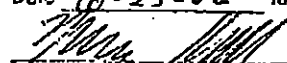
RESOLVED, that under authority granted in ORS Chapter 35 and consistent with ORS Chapter 281, that there exists a necessity to acquire and immediately occupy real property in order to realign Bernhardt Heights Road, to serve the needs of Lane County for the general use and benefit of Lane County; **AND, BE IT**

RESOLVED AND ORDERED, that the Director of the Department of Public Works or the Director's representative is hereby delegated the authority to purchase the necessary real property in accordance with Lane Manual chapter 21 and to execute related instruments to accomplish the property acquisition. If Lane County is unable by negotiations to reach an agreement for the acquisition of the necessary real property rights, the Office of Legal Counsel of Lane County is hereby authorized to commence and prosecute in the Circuit Court of Lane County, in the name of Lane County, any necessary proceedings for the condemnation and immediate possession of necessary real property rights and for the assessment of damages for the taking thereof.

DATED this 4th day of December 2002.


Chair
Lane County Board of Commissioners

APPROVED AS TO FORM

Date 10-23-02 Lane County,

OFFICE OF LEGAL COUNSEL

IN THE MATTER OF AMENDING THE FY 03 TO FY 07 CAPITAL IMPROVEMENT PROGRAM (CIP) TO INCLUDE BERNHARDT HEIGHTS ROAD; SETTING A DATE FOR PUBLIC HEARING; APPROVING A PROJECT DESIGN CONCEPT FOR THE REALIGNMENT OF BERNHARDT HEIGHTS ROAD BASED ON THE DESIGN CONCEPT IN EXHIBIT B; AND AUTHORIZING STAFF TO PREPARE A RIGHT-OF-WAY PLAN NECESSARY TO CONSTRUCT THE ROAD, PURSUE ALL NECESSARY PLANNING ACTIONS AND PREPARE PLANS AND SPECIFICATIONS FOR REALIGNMENT OF SAID ROAD.

EXHIBIT A

Bernhardt Heights Realignment Project Right-of-Way Acquisition List

Bernhardt Heights Realignment Project
Right-of-Way Acquisition List

<u>Legal Description</u>	<u>Owner of Record</u>
18-11-16/100	Roseburg Resources Co.
18-11-16/600 & 701	US Government - BPA
18-11-16/503	Wendell Morse
18-11-16/501	Daniel A. Gray
18-11-16/504 & 505	Linn W. Willis
Railroad Right-of-way	Union Pacific

EXHIBIT B

LANE COUNTY BOARD OF COUNTY COMMISSIONERS ADOPTED DESIGN CONCEPT AND FINDINGS

Bernhardt Heights Road Realignment

October 16, 2002

BACKGROUND

Bernhardt Heights Road is a rural local road approximately 1850 feet in length serving approximately nine single-family dwellings. This gravel road is characterized by a steep road grade, 13 feet in width, that is carved into a hillside with steep sideslopes above and below. The road has experienced some slope stability problems that require on-going maintenance and have generated continuing safety concerns from the residents. The proposed project realigns Bernhardt Heights Road using an existing private road owned by the Bonneville Power Administration (BPA). The intent of the realignment is to provide minimal safe access to the residential development on the road. The project is budgeted in the County's Capital Improvement Program (CIP) for construction in the 03/04 fiscal year. The current estimated costs for the project are \$160,000 for construction and \$15,000 for right-of-way (R/W) acquisition.

RECOMMENDED DESIGN CONCEPT

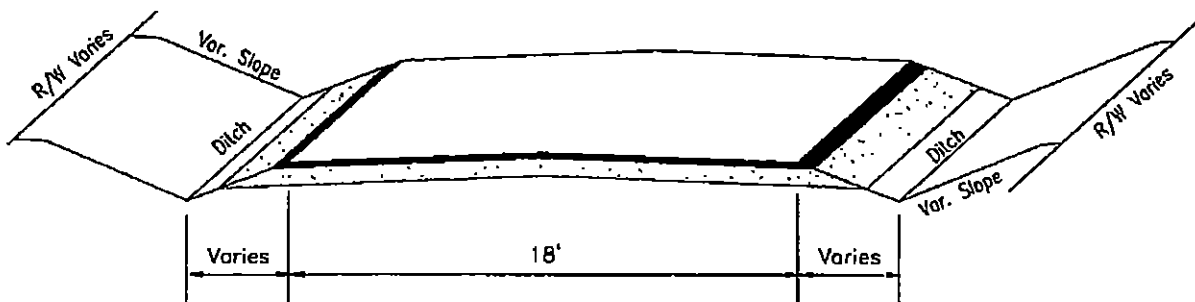
The Board of County Commissioners directs staff to construct an 20-foot wide rural roadway using the existing BPA roadway, then transition to a 18-foot wide paved section for the remaining length up to the residential development providing access to each property along the realignment.

A. Alignment

The first 2,657 feet will be along the existing BPA paved roadway up to an electric substation with a minor realignment at a sharp corner. The remaining 2,707 feet shall be a newly established road that continues from the BPA roadway, through the residential development and ending at an intersection of the existing Bernhardt Heights Road. An aerial photo showing the proposed alignment (green) is provided in ATTACHMENT B.

B. Typical Section

The existing BPA roadway is approximately 18 to 20 feet wide with a rural ditch section. This will be maintained up to an electric substation where the roadway will transition to a newly constructed 18-foot wide rural section for the rest of the project length.



- One 18-foot wide paved travel surface

EXHIBIT B

C. Standards

The project shall be designed in accordance with the 2001 American Association of State Highway and Transportation Officials (AASHTO) publication *A Policy On Geometric Design of Highways and Streets*. Traffic control, signing, and signal devices shall comply with the *Manual of Uniform Traffic Control Devices, Millennium Edition* and Oregon Supplements.

D. Design Speed

The design speed for this rural local road that has 50 vehicles per day is 20 mph. This design speed will be used for design of horizontal and vertical alignments.

E. Right-of-Way Widths

The realignment will be established on right-of-way to be acquired specifically for the project. The right-of-way will vary in width throughout the project length from 50 to 70 feet, generally, to accommodate the typical section, proposed alignment and culvert extensions.

Exact right-of-way requirements will be developed upon adoption of this design concept.

F. Additional Design Exceptions

The County Engineer is authorized to approve design standards and exceptions to design standards for features not specifically addressed in this document.

FINDINGS

A. Existing Road Conditions

The existing Bernhardt Heights Road is 13 feet wide with gravel and varying amounts of shoulder. The road is very narrow with little room for driver error, as sideslopes along the roadway are very steep.

B. Public Process

In August 2000, five residents of Bernhardt Heights Road appeared before the Roads Advisory Committee during Public Comment and testified to the unsafe condition of the roadway. Engineering Division, Road Maintenance personnel subsequently met with two residents on-site to discuss alternatives and gauge reaction to realigning the roadway to avoid the slide area.

The residents have talked to a local contractor who gave them a cost estimate for upgrading the road of \$450,000. Engineering staff has reviewed this proposal and agrees with this estimate. In addition, staff believes that the road would continue to experience slope failures and other maintenance problems after the investment was made. For this reason, Engineering staff has explored other options to provide access.

At their December 13, 2000 meeting, the Roads Advisory Committee considered a report from staff that proposed four options to address access and safety issues at Bernhardt Heights Road. The Roads Advisory Committee is recommending that the Board pursue Option C. An outline of the four options is presented below.

EXHIBIT B

On November 6, 2002, the Board held a Public Hearing on the RAC's recommended design concept to gather testimony and allow interested parties to appear before the Board. The Board deliberated on December 4, 2002, and adopted the design concept contained herein.

C. Alignment

The Engineering Division looked at four options for providing access. The options are analyzed in depth in ATTACHMENT A by using evaluation criteria and developing a list of "pro and con" statements.

Summary of Options

Option A: Widen existing road and provide guardrail. Cost: \$450,000

Option A is the red line on the aerial photo in Attachment B. This option would improve the existing roadway to a two-lane paved section with guardrail. This option represents the request from the property owners.

Option B: Widen gravel logging road to the west Cost: \$500,000

Option B, the blue line on the aerial photograph, proposes an 18-foot paved road to the west that uses an existing logging road on the Davidson Industries property.

Option C: Modify/extend an existing BPA road to the east Cost: \$175,000

Option C, the green line on the aerial, proposes the use of an existing Bonneville Power Administration (BPA) access road to the east as an alternate route for the current roadway. This option uses the existing paved portion as-is and extends up to the residential area with an 18-foot paved roadway. The BPA route would become a County road as well as the new extension up to the residential area at the top of the hill.

Option D: Repair slide area only on existing road Cost \$150,000

Option D proposes to fix only the slide area with some type of slope stabilization device (retaining wall, sheet piling, etc.).

Preferred Option

Staff and the Roads Advisory Committee are recommending Option C as the preferred option.

The Roads Advisory Committee recommended a 20-foot gravel road width for the newly constructed Option C alignment. Staff is recommending the Board adopt a design concept that uses an 18-foot paved surface instead. This will add approximately \$22,000 to the project, but will be easier to maintain and be consistent with standards being proposed in the draft Lane County Transportation System Plan.

In looking at the Alternatives Analysis in ATTACHMENT A, the following conclusions about each option were drawn. Options were not supported if they failed to meet one or more of the following criteria.

Reasonable Cost - Option A, while being the most direct access to the developed properties within an existing County right-of-way, was eliminated due to high cost. Although a target maximum cost was not developed for the project, an investment of \$450,000 for a road that may continue to experience stability problems was not seen as a prudent expenditure of Road funds. For this same reason, Option B was eliminated due to its \$500,000 estimated cost.

EXHIBIT B

All remaining options were within a reasonable cost maximum for this project.

Improved Safety – This criterion is the basis of the project goal that is to provide minimal safe access to the residential development on Bernhardt Heights. At the minimum, the County Engineer would like to see a paved road with two lanes or Inter-visible turnouts on a stable road base. Option D was eliminated due to its inability to meet these fundamental safety enhancements such as providing two travel lanes and guardrail for more than just the slide area. Options A and D may continue to experience future slope failures that will necessitate road closure and further expenditure of road funds.

Reduced Maintenance – None of the options were eliminated due to this criterion, however the potential for future slope failures would cause obvious maintenance problems for Options A and D.

Improved Neighborhood Accessibility – None of the options were eliminated due to this criterion. Options B and C require some out-of-direction travel compared to Options A and D.

Limited Physical/Design Constraints – Option B, already eliminated due to cost, also contains a rock formation on tax lot 1900 that will make establishing a road of sufficient width expensive. Estimated costs associated with the rock cut added approximately \$300,000 to the option. Options A and D maintain existing steep road grade and severe side slopes causing significantly large cuts/fills.

Acceptable Land Use Impact/Requirements – No option was eliminated due to this criterion. It is worth noting, however, that both Options B and C will require Special Use Permit processes, as a public road is not an outright use in Forest zones.

Limited Property Acquisition Impact – No option was eliminated due to this criterion.

Limited Environmental Impact – No option was eliminated due to this criterion. Option C will have the most environmental workload associated with it. The use of the BPA route triggers a federal nexus and therefore requires an Endangered Species Act process. This is not seen as a fatal flaw since it is reasonable to expect a Finding Of No Significant Impact (FONSI). The route already experiences a certain amount of ambient noise due to the developed parcels and existing BPA facility. The additional length of road needed to get to the residential development will cross a drainage/creek, but the likelihood of this being a fish-bearing stream is low. Environmental inventories and studies will have to be performed to determine exact impacts, but upon initial review, there will likely not be much, if any, mitigation requirements.

Local Community Acceptance – Option A has high local community acceptance as it represents the request of the residents living in the area. Option D was eliminated due to this criterion, as it is not seen as fixing the problem and will, in effect, just be a Band-Aid for a larger dilemma.

Option C is then recommended as the preferred alternative as it provides a safe and operationally sufficient roadway at a reasonable estimated cost. Option C satisfies the goal of the project to provide minimal safe access to the residential development on Bernhardt Heights with relatively little physical design constraints. While the Land Use and Environmental requirements of Option C are relatively heavier than the other options, this is outweighed by the convenience of an existing paved and guard-railed roadway for over half of the project length that is not experiencing slope failures.

The Bonneville Power Administration has been contacted regarding transfer of the access road to public use and they have given preliminary indications of support for the proposal with some conditions. The main condition raised by BPA is the straightening out of a curve located at approximately the mid-point of the paved section. The Department finds no

EXHIBIT B

major issues with BPA's conditions that would jeopardize the use of the access road as a realignment of Bernhardt Heights Road. The estimated construction cost of \$160,000 includes \$20,000 for this curve realignment work.

D. Typical Section

Current and projected traffic volumes indicate that one travel lane in each direction will be sufficient for this project. The establishment of a new roadway and utilization of the existing BPA roadway will meet the intent of the proposal, which is to provide minimal safe access.

E. Right-of-way Widths

Right-of-way will have to be acquired to accommodate fill and cut slopes needed to establish a viable road surface and establish the typical section. The right-of-way therefore varies in width throughout the project length from 50 feet to 70 feet, generally. This right-of-way will be new and establish a roadway where there is none at this time. The proposed right-of-way also traverses F1 and F2 forest zones and will require issuance of a special use permit.

F. Environmental

The Army Corps of Engineers, Division of State Lands, National Marine Fisheries Service and possibly others will determine mitigation requirements through permitting processes. One significant drainage way is crossed by the preferred option. Further analysis will have to be done to determine the extent of environmental impacts, but upon initial investigation, the drainage does not appear to be fish bearing and may only need minimal mitigation to offset any impacts. Environmental inventories and studies will have to be performed to determine exact impacts

G. Policy Framework

The proposal is subject to requirements of the Oregon Transportation Planning Rule. Based on evidence contained in this record, and testimony presented in a work session and public hearings, the Board of Commissioners finds the proposal satisfies these standards as follows:

Compliance with the Oregon Transportation Planning Rule

Options B and C would create a realignment¹ of an existing road.

The Transportation Planning Rule (TPR), OAR 660-012-0065, identifies transportation facilities, services and improvements which may be permitted on rural lands consistent with Goals 3 (Agriculture), 4 (Forest), 11 (Public Facilities), and 14 (Urbanization) without a goal exception, including realignment of roads (OAR 660-012-0065(3)(d)).

The realignment would traverse Rural Residential and Forest (F-1 and F-2) zones.

¹ Oregon Administrative Rules (OAR) 660-012-0065(2)(f) states, "Realignment" means rebuilding an existing roadway on a new alignment where the new centerline shifts outside the existing right of way, and where the existing road surface is either removed, maintained as an access road or maintained as a connection between the realigned roadway and a road that intersects the original alignment. The realignment shall maintain the function of the existing road segment being realigned as specified in the acknowledged comprehensive plan."

EXHIBIT B

The realignment must therefore comply with the state Forest Lands Rule (OAR 660-004-0025(4)(v)), which allows "Public Roads and highway projects as described in ORS 215.213 . . . (10). ORS 215.213(10) was enacted by the legislature prior to, but anticipated future adoption of, the TPR. In a somewhat convoluted manner, ORS 215.213(10)(b) states, "Roads, highways, and other transportation facilities . . . may be established . . . subject to ORS 215.296 for those uses identified by rule of the Land Conservation and Development Commission as provided in section 3, chapter 529, Oregon Laws 1993." Resurrecting the 1993 Oregon Law subsection, it links the TPR to the Forest Lands (As well as Agriculture) Rule so that the proposed project is consistent with the TPR as well as the Forest Lands rule:

1993 Oregon Laws, Chapter 529, Section 3:

The Department of Transportation shall by March 30, 1994, submit to the Land Conservation and Development Commission proposed rules identifying the other roads, highways and transportation facilities that may be allowed pursuant to ORS 215.213 (10)(b) and 215.283 (5)(b). The Land Conservation and Development Commission shall adopt rules implementing ORS 215.213 (10)(b) and 215.283(5)(b) by June 30, 1994.

The reference to ORS 215.296 indicates that uses allowed under these provisions require special use permits. ORS 215.296 contains the standard, discretionary language requiring a showing of no significant impact to farm or forest practices on surrounding lands.

Recent Impacted Forest zone (F-2) amendments also allow for the project as a special use, under LC 16.211(3)(q)(v).

The project could also be allowed as a "new" road, rather than as an existing road, under other provisions of the TPR:

- In the Rural Residential zone, the TPR allows, "new access roads and collectors within a built or committed exception area . . . These roads shall be limited to two travel lanes. Private access and intersections shall be limited to rural needs or to provide adequate emergency access."²
- In addition, the TPR allows the following uses in any rural zone, including Forest zones, without a goal exception: "Transportation facilities, services and improvements other than those listed in this rule that serve local travel needs. The travel capacity and level of service of facilities and improvements serving local travel needs shall be limited to that necessary to support rural land uses identified in the acknowledged comprehensive plan or to provide adequate emergency access."³

The proposed Bernhardt Heights Road project meets the above requirements.

For informational purposes, the TPR specifies that no new parcels may be created by the road improvements. Although the new road would transect several private properties, they would not create new parcels as defined by state law, which states that a "parcel means a single unit of land that is created by a partitioning of land."⁴ State law further specifies that a parcel does not include, "A sale or grant by a person to a public agency or public body for state highway, county road, city street or other right of way purposes provided that such road or right of way complies with the applicable comprehensive plan... any property divided by the sale or grant of property for state highway, county road, city street or other

² OAR 660-012-0065(3)(g)

³ OAR 660-012-0065(3)(e)

⁴ Oregon Revised Statutes (ORS) 92.010(6)

EXHIBIT B

right of way purposes shall continue to be considered a single unit of land until such time as the property is further subdivided or partitioned."⁵

Public Works staff therefore find that no land use planning goal exceptions are needed for Options B or C as well as Options A and D. However, a special use permit is needed for portions of a realigned road that fall within F1 or F2 zones as public roads are not an outright use in these zones.

⁵ ORS 92.010(7)(d)

ATTACHMENT A

Options Analysis

Bernhardt Heights Road Alternatives Analysis

Bernhardt Heights Road is a county local road that is experiencing slope stability problems. The expected on-going maintenance issues have caused the need to look for a different access to the developed properties at the top of the hill.

PROJECT GOAL: To provide minimal safe access to residential development on Bernhardt Heights. Also to optimize overall public expenditures on both capital and maintenance investments over the life of road.

Criteria	OPTION A (Red) - Improve existing roadway. (two-lane paved with guardrail)	OPTION B (Blue) - Creating a new public road utilizing an existing logging road on Davidson Industries property located to the west of the current roadway. (18-foot paved)	OPTION C (Green) - Creating a new public road utilizing an existing sub-station access road for a Bonneville Power Administration facility located to the east of the current roadway. (maintains existing paved section as-is, 18-foot paved beyond)	OPTION D - Minimal build - Fix slide area.
Length of New Construction	1848 feet (563 meters)	3900 feet (1190 meters)	2657 feet (810 meters) existing paved. 2707 feet (825 meters) unpaved 5364 feet (1635 meters) total	360 feet (110 meters)
Reasonable Cost	\$450,000	\$500,000	\$175,000	\$150,000
Improved Safety	PRO: - Most direct access to developed property. CON: - Side-slopes make it difficult to install guardrail. - Road slope is steep at specific sections along the road.	PRO: - Road slope at connection to Hwy 126 relatively flat. CON: - Converting private RR x-ing to public.	PRO: - Existing paved roadway with guardrail up to sub-station. CON: - Section of alignment on north side of hill - icing issue. - Road grade is also steep at this location on the paved portion.	PRO: - Fixes immediate slide area. CON: - Potential future slope failures will continue to be a problem. - Does not provide two lanes. - Does not provide guardrail.
Reduced Maintenance	PRO: - Follows existing county road right-of-way. CON: - On-going maintenance costs predicted. (slope failures)	PRO: - CON: -	PRO: - CON: -	PRO: - CON: - Single lane only.

Bernhardt Heights Road Alternatives Analysis

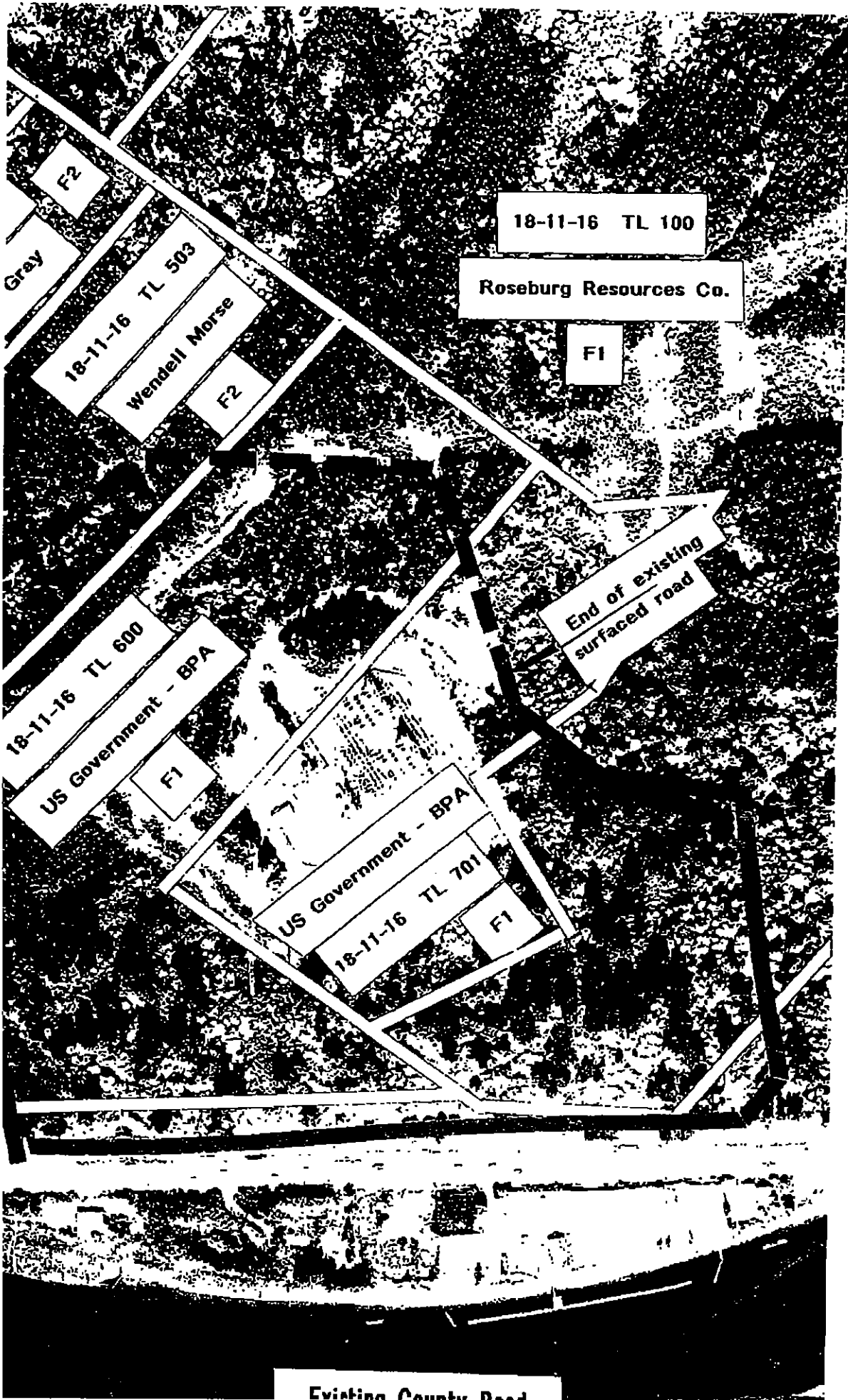
Criteria	OPTION A (Red) - Improve existing roadway. (two-lane paved with guardrail)	OPTION B (Blue) - Creating a new public road utilizing an existing logging road on Davidson Industries property located to the west of the current roadway. (18-foot paved)	OPTION C (Green) - Creating a new public road utilizing an existing sub-station access road for a Bonneville Power Administration facility located to the east of the current roadway. (maintains existing paved section as-is, 18-foot paved beyond)	OPTION D - Minimal build - Fix slide area.
Improved Neighborhood Accessibility	<p>PRO:</p> <ul style="list-style-type: none"> - Existing access to residences. - Most direct route to residences. <p>CON:</p> <ul style="list-style-type: none"> - Possible slope failures could jeopardize use of the road. - Residents complain of steep road grade. 	<p>PRO:</p> <ul style="list-style-type: none"> - Provides safe access to residential development using an existing logging road. <p>CON:</p> <ul style="list-style-type: none"> - Some out-of-direction travel. 	<p>PRO:</p> <ul style="list-style-type: none"> - Provides safe access to residential development with best ability to provide continuous 18 to 20-ft section. <p>CON:</p> <ul style="list-style-type: none"> - Longest route to access residences. - Some out-of-direction travel. 	<p>PRO:</p> <ul style="list-style-type: none"> - No change. <p>CON:</p> <ul style="list-style-type: none"> - Residents complain of steep and narrow road grade.
Limited Physical/Design Constraints	<p>PRO:</p> <ul style="list-style-type: none"> - Established roadway. <p>CON:</p> <ul style="list-style-type: none"> - Side slopes are severe. Cuts/fills are significantly large. 	<p>PRO:</p> <ul style="list-style-type: none"> - Utilizing existing logging road. <p>CON:</p> <ul style="list-style-type: none"> - Rock formation on tax lot 1900 will make road widening difficult and add an estimated \$300,000 to cost. - Widening needed. 	<p>PRO:</p> <ul style="list-style-type: none"> - Relatively open, wide area for establishing roadway all along proposed length. - Utilizes existing logging road for extending the road. <p>CON:</p> <ul style="list-style-type: none"> - BPA requires some work to straighten curve located approximately mid-point of paved section. 	<p>PRO:</p> <ul style="list-style-type: none"> - <p>CON:</p> <ul style="list-style-type: none"> - Steep road grade with steep sideslopes above and below will remain.

Bernhardt Heights Road Alternatives Analysis

Criteria	OPTION A (Red) - Improve existing roadway. (two-lane paved with guardrail)	OPTION B (Blue) - Creating a new public road utilizing an existing logging road on Davidson Industries property located to the west of the current roadway. (18-foot paved)	OPTION C (Green) - Creating a new public road utilizing an existing sub-station access road for a Bonneville Power Administration facility located to the east of the current roadway. (maintains existing paved section as-is, 18-foot paved beyond)	OPTION D - Minimal build - Fix slide area.
Acceptable Land Use Impact/Requirements	<p>PRO:</p> <ul style="list-style-type: none"> - No Goal Exception needed as an improvement of existing road considered a "modification" under ORS 215.213 <p>CON:</p> <ul style="list-style-type: none"> - 	<p>PRO:</p> <ul style="list-style-type: none"> - Considered creating a new access road under the Forest Rule OAR 660.006. - Allowable under Goal 4 as proposed. - Conversion of an existing logging road means no new impact. <p>CON:</p> <ul style="list-style-type: none"> - New alignment will cut across F1 and F2 zoning. - Special Use permit needed as a public road is not an outright use in Forest zones.. 	<p>PRO:</p> <ul style="list-style-type: none"> - Considered an access road under the Forest Rule OAR 660.006. - No Land Use Goal Exception needed. - Conversion of an the existing BPA road means no new impact. <p>CON:</p> <ul style="list-style-type: none"> - Extension of BPA road will create new impacts. - Extension will cut across F1 and F2 zoning. - Special Use Permit needed as a public road is not an outright use in Forest zones. 	<p>PRO:</p> <ul style="list-style-type: none"> - No impact. <p>CON:</p> <ul style="list-style-type: none"> -
Limited Property Acquisition Impacts	0.85 Acres	4.00 Acres	3.71 Acres	None.
Limited Environmental Impact	<p>- Need confirmation of minimal impact.</p> <p>- Within Coastal Zone Management Area.</p> <p>- Potential Bald Eagle, Coho, murrelet and owl impacts.</p>	<p>PRO:</p> <ul style="list-style-type: none"> - <p>CON:</p> <ul style="list-style-type: none"> - Within Coastal Zone Management Area. - Potential Bald Eagle, Coho, murrelet, owl and riparian impacts. - Biological Assessment strongly advised. 	<p>PRO:</p> <ul style="list-style-type: none"> - <p>CON:</p> <ul style="list-style-type: none"> - Within Coastal Zone Management Area. - Some impact to drainage swales along proposed alignment. - Potential Bald Eagle, Murrelet, and Owl impacts. - BPA land and drainage trigger federal nexus = ESA. Help NMFS and USFWS evaluate impacts. 	None.
Local Community Acceptance (as gauged in January 2001 from Maintenance personnel site visit)	High	2nd Choice	Low - due to steep section.	Low.

ATTACHMENT B

**Aerial photograph with
Alternative Alignments**





LANE COUNTY

PUBLIC WORKS DEPARTMENT / 3040 North Delta Hwy. / Eugene, OR 97408
Phone: (541) 682-6911/ Fax: (541) 682-8500

MEMORANDUM

TO: Lane County Board of Commissioners
FROM: Mike Russell, Capital Improvement Coordinator
DATE: September 21, 2004
RE: Bernhardt Heights Road Background

This memo is intended as a supplement to the Agenda Cover Memo prepared for the Board in considering this project. The memo refreshes information provided to the Board when you first considered a design concept for the project.

Since the Board's adoption of the design concept for Bernhardt Heights Road on December 4, 2002, Public Works has been developing the final design in anticipation of construction. Through refinement of the design and discussions with adjacent property owners, a modified alignment, that is different than the one presented to the Board, was developed. The modified alignment presents changes in property impacts and the project estimate that necessitate a discussion before the Board to reaffirm commitment to the project.

Maintenance History on the Existing Roadway

One of the main reasons we continue to pursue a realignment of the road is the maintenance effort that has been required to keep the existing route passable. It is expected that the past efforts reflect what will continue to happen along the current route.

Recent study of countywide road maintenance costs found that, for a rural local road such as Bernhardt Heights Road, maintenance costs are about \$5,300 per mile annually.

Looking back on past maintenance activity on Bernhardt Heights Road between October 1993 and October 2003 we found that we spent nearly \$128,000 over the 10 year study period, or \$12,800 annually. When divided by the 0.35-mile length of Bernhardt Heights, this equates to about \$36,500 per mile spent maintaining this road annually. This number includes the recent slide repair and culvert replacement that occurred between December 2003 and February 2004, which is indicative of past repairs made to this road.

Comparing the \$36,500 annual per mile cost to the \$5,300 average annual per mile cost, it is evident that we are expending a lot of effort on this short gravel road compared to our average maintenance effort.

Modified Alignment

The original alignment chosen by the Board utilizes an existing paved access road owned by Bonneville Power Administration (BPA). The access road is approximately 2,600 feet long. It then transitions to a gravel logging road that accesses adjacent properties.

The modified alignment will still use the BPA access road, but takes a different course at the transition to the gravel section. This can be seen on the aerial photo on the following page. The dark green line represents the original alignment and the yellow line represents the modified alignment.

The original alignment was modified due to the following circumstances:

- Extensive potential impacts to a mature, functioning, and valued forested area that may support endangered species habitat.
- Disruption to two natural drainages that supply water to two residents and an associated potential increase in regulatory requirements for mitigation.
- The original alignment bisects the property owned by Wendell Morse and is unacceptable to him as determined through discussion.
- Potential impact to Morse property well
- Construction costs associated with the alignment due to steep topography and crossing two drainages.

The modified alignment provides some benefit over the original in the following manner:

- Decreased right-of-way impact to private property owners due to substantially more of the route traversing public property (BPA).
- Potential impacts to threatened and endangered species habitat appear to be greatly reduced.
- Requires a single drainage crossing as opposed to 2 on the original alignment. This reduces excavation work and wetland resource replacement requirements.
- Avoids impacting water sources for residents.
- Helps BPA with a maintenance issue for the main tower. BPA recently sold the Florence trunk line and right-of-ways to Lincoln PUD. In doing so, BPA sold all easement access to their main tower that carries power lines over the Siuslaw River. The modified alignment would be able to provide access to the main tower from a public roadway.
- A major goal of the modified alignment is to take advantage of existing property lines for alignment, thereby reducing impacts to any one property owner.

It is for these reasons that the modified alignment was developed and is now recommended.

Project Cost Estimate

The project cost estimate has been refined to reflect more detailed information regarding the modified alignment and construction requirements. The Board considered a project cost of \$160,000 for construction and \$15,000 for right-of-way. As more information has been gathered, mainly through a topographic survey, more precise estimates of material quantities have been made.

The revised project estimate has risen and reflects the costs associated with the modified alignment. Estimated construction costs stand at \$350,000 and right-of-way at \$35,000. These costs are reflected in the 05-09 Capital Improvement Program (CIP) adopted by the Board on May 12, 2004.

The increase in project cost is due, in part, to the large fill embankment needed to traverse the drainage on the modified alignment. The Design Section is looking at ways to reduce the amount of fill required, such as designing steeper road grades and sharper curves beyond standards. Any adjustments that can be made at this crossing will reduce the overall project cost.

The current cost estimate does not include any work that may be required related to reclassifying the Bonneville Power Administration access road to a public facility by either the railroad operator or BPA. Staff continues to communicate with these agencies and will refine the necessary agreements accordingly.

Date: July 2004

To: Lane County

Fm: Bernhardt Heights Road (BH Rd), private property owners using such

Subj: Current road repair/improvement project

The BH Rd community has been asked for input on the road project due to the emergence of information not prior gathered by either the community nor the county. In general, the community continues to voice its desire for less expensive and more desirable solutions to maintaining the existing Bernhardt Heights county road. Earlier, the county said it would cost 500K to fix and make safer the existing ¼ mile road with a two lane hard-topped road which the community countered with a signed letter dated 18 September 2000 containing a 450K bid. Upon the county road department recommendation, the Lane County Board of Commissioners approved on 04 December 2002 the construction of a new nearly mile long road which is heading toward a 1M+ project. The community suggested using the existing roadway which the county subsequently worked up as Option E at a cost of only 350K. Upon review of the facts, this statement by the community is provided to reemphasize its desire to use a doable and less expensive approach, that of the county developed Option E or similar. All parties that have visited the community have left with the belief the LCBC should reevaluate its earlier decision based on the uncovered facts which show anything other than keeping the existing roadway is not cost effective.

Properties using road for access, 70 crossing/day, also fire access of forest zoned/timbered areas:

hse*2	30ac	18-11-16-00-02000+02001	7659 BH Rd	Jamie and Wilma Jaramillo	541-997-5086
barn	30ac	18-11-16-00-00401	----none----	Don Davidson (timber)(red barn)	541-268-4422
water	14ac	18-11-16-00-02403	----none----	Hong-Shiou (Tony+Rose) Chiou	541-999-8128
hse	5ac	18-11-16-00-00504+00505	7549 BH Rd	Linn and Kathy Wills	541-997-6319
hse	13ac	18-11-16-00-01001	7681 BH Rd	Arthur Y Perkins (K. Stanton, agent)	541-997-1398
hse*2	3ac	18-11-16-00-00500	7691 BH Rd	Gary (Pete) and Deborah Peterson	541-997-8740
hse	19ac	18-11-16-00-00501	7697 BH Rd	Daniel and Elisa Gray	541-997-2915
hse	20ac	18-11-16-00-00503	7699 BH Rd	Wendell and Verna Morse	541-997-4024

BH Rd occasionally used by PUD and BPA to maintain their utility pole/tower lines and easements.

Existing BH Rd historical perspective:

Roadway has existed for over 100 years having been primarily cut out of a steep rock slope. The stable steep edges are due to the rock strata sloping up toward the center of the adjacent valley providing good stability over the century. Some years back, the road was widened to provide greater driving and passing safety resulting in an essentially 18' wide single lane with turnouts gravel roadway. It traverses one deep ravine filled with rock in January 2003 after the rotted timber/dirt fill and undersized cement culvert failed. There are also two areas where some sliding has occurred over the century. These were shored up using old timbers from the North Fork Siuslaw bridge that was rebuilt in cement. All would be fine; except, these timbers are now rotting and sliding down the slope. BH Rd is roughly 2,000' long, 1,550' (77%) exceeding 18' wide, and the narrows are typically at or above 15' wide. BH Rd is ALL above the AASHTO suggested minimums for 1-lane 2-way roadbed width. The 18' width comes from the AASHTO recommendation for "Rural Minor Access Roads" 2-lane 2-way road which BH Rd essentially is. 18' allows cars to pass while with trucks one of several existing turnouts are typically used. Attention needs to address the two rotting timber areas, installing a 1,200' safety guard rail, and maintaining the 18' road width. Notice, the heavy trucks carrying many many many loads of boulders and later crushed rock to fill the deep ravine used this road in its present condition; proof BH Rd is essentially solid. Access by large wildland and structural fire fighting equipment is possible now but marginally in a few places.

Community consensus in order of preference:

1) **Adopt Option E except 6+' not 4+' turnouts** (12' wide hardtop road with 4 turnouts and 1,200' guard rail). This satisfies AASHTO recommendations for a 1-lane 2-way low volume rural minor access road.

There is concern about a hardtop roadway being slippery with winter black ice and summer rain slick especially with fallen leaves. Prefer any hardtop be of the course/rough/rocky type commonly used in national parks in the snow zones. Not only would a rough rough rough surface reduce slippage concerns, it will also keep drivers from speeding. Keeping the hardtop as a single lane also keeps drivers from thinking of speeding.

Can cut into slope as the ground/rock layers are rising as if hill top is in the river valley. This means slope slides are minimized, a concern of the only affected house site on 18-11-16-00-00500 (Peterson). 18-11-16-00-01001 (Perkins) has no problem if the county wants to cut into the slope and in removal/trimming of roadside trees. 18-11-16-00-00504+00505 (Wills) has offered to allow road work materials to be dumped on the down slope on his property as has been done in the past to reduce road work costs.

3 want hardtop, 1 is split between hard vs gravel, 1 wants gravel, and 3 are indifferent (D/C/J).
A *2ea equivalent would show; 7 = hardtop, 3 = gravel, 6 = don't care as long as Option E hard/gravel is done.

2) **If not Option E, then reestablish the 18' roadwidth** by fixing/widening the 23% most of which is already in the 15-18' range now. This satisfies AASHTO recommendation using gravel for a 2-lane 2-way low volume rural minor access road serving four or more parcels. Twice/thrice yearly grading/rolling will continue.

3) **If not Option E #2, then install 1,200' safety guard rail** to mitigate accident concerns and liability.

4) **Add pair of 10 mph traffic speed signs** on the bottom and top to alert drivers to stay under 15 mph. This provides for both speed citations and to mitigate accident liability when excessive speed is implicated.

5) **Prior cut into the hill at the blind turn** around the 1,000' linear point, where the roadway is now 16' wide, be further cut to 18'+ wide with the debris removed to the nearby property offered for such dumping.

6) **Shave off the road hill top** just before the ravine where the maximum road grade of 18% takes a jump to 20%+ for a short 100' stretch. Remove some of the hill crest dumping it on the nearby property.

This is true and representative of my(our) desires signified by my(our) signature(s) below:

18-11-16-00-02000	Jamie and Wilma Jaramillo	Date signed: <u>8/5/04</u>
18-11-16-00-00401	Don Davidson (timber)(red barn)	Date signed: <u>-</u>
18-11-16-00-02403	Hong-Shiou (Tony+Rose) Chiou	Date signed: <u>8/8/04</u>
18-11-16-00-00504	Lynn and Kathy Wills	Date signed: <u>8-14-04</u>
18-11-16-00-01001	Arthur Y Perkins (K. Stanton, agent)	Date signed: <u>24 July 2004</u>
18-11-16-00-00500	Gary (Pete) and Deborah Peterson	Date signed: <u>-</u>
18-11-16-00-00501	Daniel and Elisa Gray	Date signed: <u>7/24/04</u>
18-11-16-00-00503	Wendell and Verna Moore	Date signed: <u>7/24/04</u>

Bernhard Heights Road Project; Lane County, Florence (5 mile mark Hwy126)

Dec 2004 road surveyed by Keith Stanton to find missing county information regarding existing road widths.

Measured distance by 150' tape, elevation by aviation altimeter (some adjustment), and width by 25' tape.

Values compared favorably with county provided distance and elevation measurements of 2003.

Also added data on culverts, shoring, slides, running water, etc. to indicate related work/conditions.

Highlighting: 1) every 50 foot measurements, 2) road widths under 18 foot, and 3) important descriptors.

Distance (D+E in feet)	Elevation by county	Elevation by Keith	Width (in feet-in)	Remarks (widths are based on narrowest in stretch unless additionally noted)
0		0	13 - 00	Start Point - just off SR-126 aligned with Stop sign on east ramp (13-18' foot widths)
50	22	19	50+++	
64				Crossing CORP southern most train rail (2 ramps east/west feed down onto SR-126)
83				Bernhardt Heights Road Stop sign to cross CORP rails and south edge BPA driveway
95				Northern edge of BPA driveway
100		34	40 - 00	
150	30	34	18 - 03	Established on Bernhardt Heights Road proceeding up
200		43	18 - 03	
225				Begin southerly 105 foot turnout area
250	45	47	25 - 00	
300		51	33 - 00	
330			32 - 00	Finish turnout area as run into major 4' culvert for major ravine spring/rainwater drain
350	64	67	25 - 00	
400		72	20 - 00	
450	80	80	19 - 00	
500		89	18 - 09	
550	98	94	21 - 00	Begin southerly 50 foot turnout area
580			27 - 09	Widest point of the turnout area
600		105	25 - 00	Finish southerly turnout area
650	113	119	19 - 00	Area of blind bend (3 of)
685			19 - 03	Small 3 foot slide next to and east where drainage culvert exits roadway
693				Drainage culvert exits southern roadway edge
700		128	21 - 09	
703				Drainage culvert enters northern roadway edge
719				Tree on southern edge tends to narrow roadway
750	131	136	17 - 03	Begin southerly 36 foot turnout area (could be more if remove tree at 786)
776			22 - 09	Widest point of the turnout area
786			17 - 00	Finish southerly turnout area due to a tree narrowing roadway edge
800		139	16 - 09	
850	147	152	19 - 00	Width of this stretch though here actually 22-00 for a southerly small 40 foot mini-turnout area
900		159	16 - 03	
927			15 - 09	Drainage culvert exits southern roadway edge
936			16 - 06	Drainage culvert enters northern roadway edge
950		164	16 - 03	
975	162			Water down slope here enters old drain culvert that comes out south 7 ft under grade
1,000		174	16 - 06	
1,039				Drainage culvert exits southern roadway edge (is 4/5th full of crushed rock)
1,046				Drainage culvert enters northern roadway edge
1,050		187	16 - 00	Area of blind bend (3 of)
1,077	178		14 - 00	Earlier slide's narrow area could be walled in with existing 3 large trees as supports
1,100		198	17 - 00	
1,125			17 - 00	Begin northerly 45 foot turnout area
1,150		204	23 - 00	Widest point of the turnout area
1,170	196		16 - 00	Finish northerly turnout area
1,200		213	16 - 00	Width of this stretch though here actually 19-00 for a small mini-turnout area
1,217				Start of major 170 ft slide area shored up with old NorthFolk bridge timbers many years ago
1,236				Begin slide cut into road due to one of the timbers here having rotted away
1,250		218	15 - 00	Narrowest place of the current slide from loss of slide shoring
1,275	212			Finish slide cut into road due to one of the timbers here having rotted away
1,300		224	23 - 00	
1,350		232	18 - 03	The 1.5 foot of shoring timber is included in this measurement
1,354				Drainage culvert exits southern roadway edge
1,360				Drainage culvert enters northern roadway edge
1,367	227		15 - 06	Junction of two shoring timbers showing signs of imminent loss of road edge support
1,387				End of timber shored up stretch
1,400		237	16 - 03	

1,450		245	16 - 09	Begin southernly 50 foot small turnout area
1,475	241		25 - 00	Widest point of the turnout area
1,500		250	21 - 00	Finish southernly small turnout area
1,506				Drainage culvert exits southern roadway edge
1,511				Drainage culvert enters northern roadway edge
1,550		264	19 - 00	
1,583	260		24 - 00	Small southernly 20 foot mini-turnout area — Area of blind bend (3 of)
1,600		268	21 - 00	Road widening as moving away from southern slope
1,650		276	25 - 00	Large turnout area east side of ravine bridge
1,700	270	281	40 - 00	Top of initial and major climb now dips slightly down then goes gently up a bit more
1,704				First drainage culvert enters northern roadway edge directed toward ravine
1,713				Begin private driveway to the north for #7691 (original Edwin Bernhardt homesite)
1,728				Finish private driveway to the north for #7691
1,737				First drainage culvert exits southern ravine bridge edge
1,750		276	40 - 00	
1,761			21 - 00	Narrowest point crossing crushed rock bridge of major ravine (last major repair)
1,775				Begin private shared driveway to the north for #7681, #7697, and #7699
1,780				Second drainage culvert exits southern ravine bridge edge
1,787	268			Finish private shared driveway to the north for #7681, #7697, and #7699
1,800		281	23 - 00	Second drainage culvert enters northern roadway edge directed toward ravine
1,850		272	31 - 00	Large turnout area west side of ravine bridge
1,900	275	281	30 - 00	
1,950		283	24 - 00	
2,000	286	286	30 - 00	Begin private driveway to the north for #7549 (original turn into logging camp)
2,015				Finish private driveway to the north for #7549 (road end; but, best to just get past drive)
2,050		289	30 - 00	End of county road while continues as a private driveway for #7659
				Stake reportedly 50 years old remains on edge in overgrowth where county road ended.



SUPPLEMENTAL MATERIAL

W.B.a.

LANE COUNTY

PUBLIC WORKS DEPARTMENT / 3040 North Delta Hwy. / Eugene, OR 97408
Phone: (541) 682-6911/ Fax: (541) 682-8500

MEMORANDUM

TO: Lane County Board of Commissioners
FROM: Bill Morgan, Senior Engineering Associate
DATE: December 8, 2004
RE: Supplemental materials for Bernhardt Heights Road public hearing

Enclosed are the following materials, including written public testimony, to supplement the Bernhardt Heights Road item, which is scheduled for a public hearing on Wednesday, December 8.

1. Written comment from residents Gary & Deborah Peterson
2. Written comment from residents Linn & Kathy Wills
3. Four-page statement with attachments from resident Keith Stanton
4. Updated list of properties from which right-of-way may be acquired for realignment alternative 2

MORGAN Bill F

From: PETERSON Debbie (LESD)
Sent: Thursday, December 02, 2004 2:23 PM
To: MORGAN Bill F
Subject: Bernhardt Heights Road Public Hearing

I am writing to support the Boards decision for realigning Bernhardt Heights Road. Although the old road is most convenient we understand that realignment is the most cost effective. We believe that you are in the position to make the best decision in regards to options 1, 2, 3, & 4. We would disagree with options 5, 6 & 7. As homeowners, option 5, 6, & 7 would put an extreme hardship on us and the community as a whole and would drastically reduce our property values. We truly appreciate all efforts by the county on the current road and all thought put into the best way to proceed.

Respectfully,

Gary & Deborah Peterson
7691 Bernhardt Heights Rd.
Florence, OR 97439
541-997-8740

Hi Bill:

I am happy to see that progress is being made on the access of Bernhardt Heights.

I do feel sad that the County and its representatives are looking so hard at the Bonneville road that they are over looking its problems including the slide outs they have had the sharp corner, steep grade, canyon to fill, right of way to acquire and over all distance to go.

I feel we are being forced to go in a direction that in the end will not be the answer for the County or the residences.

I would like to suggest that maybe you should make Bernhardt Heights a loop road so if the Bonneville road experiences another slide that lands on the road that we could still use the other road till it gets cleaned up.

I have another concern that the County won't take care of the road like the last 300 feet of the existing Bernhardt Heights Road. For what ever reason they put a sign (end maint) 300 feet short of the end of the road.

I don't think they are trying to start an adversarial relationship with the people of our community. I am sure they know where the road ends because they use to grade it. My only guess is that they just don't want to.

I have some timber on my place I would like to log some day and have it hauled off Bernhardt Heights road like I have in the past but I have been waiting for a decision on what direction the County is going in and the last

timber I logged I was informed by the County that I had to stop because it was at the end of the Bernhardt Heights Road the same place that they are not maintaining now and as for the estimate for the road

maintenance from October 1993 to October of 2003 I would like to say that the culvert at the top of the hill that washed out was put in when the road was built by the County and that was around 1936 so I don't see it being

far to only use that space of time when that should be averaged over the life of the road. I might also add that in all that time could you show us the records of how many times that culvert was checked for possible

problems. Now I know this is all petty stuff that only side tracks us from the main issue that the road needs improvements. Whether it is improving the existing road or some alternative that local County folks want. I think we can all agree the access still needs improvements.

I would like to thank you folks for the opportunity to give you input to the process and if ask what I thought what was the best solution I would vote for the existing road to be widened (because it is flat scary to back down at night to let someone by) , but I am open minded about the alternatives even though I have lived on Bernhardt Height all my life (51 years) and know the areas problems well. I even worked for the Company that built the Bonneville Road (A.J. Vala).

Thanks again for listening.

I am for any progress for better access.

Linn Wills

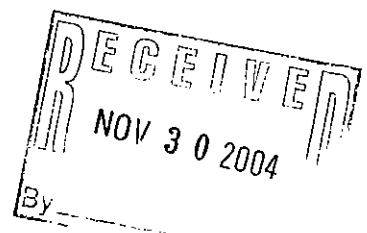
Linn & Kathy wills

linn4747@aol.com

lkwillis@peoplepc.com

07549 HWY 136
Florence, OR 97439
1-541-997-6319

150 Fountain st
Harrisburg, OR 97446
1-541-995-8735



Keith Stanton, CCP
c/o 7681 Bernhardt Heights Rd
Florence, Oregon state
USA postal code 97439-9226

email: Keith@TheUS.Com
vmail: 541-997-1398
fax: 801-757-0522



Lane County Public Works (Bill Morgan)
c/o 3040 North Delta Highway
Eugene, Oregon state
USA postal code 97408-1696

03 December 2004

Subj: Bernhardt Heights Realignment Project Public Hearing, planned for 08 Dec 04

Ref: 18 Nov 04 letter from Lane County Public Works Dept to BHRd area property owners

Please make this available to the Lane County Board of Commissioners in their materials for the referenced public hearing as I may not be able to attend and need to input some comments representing Perkins issues.

Department of Public Works (PW) has a letter designating me as the agent for the Arthur Y. Perkins property on which I am currently residing. I surveyed BHRd for width, elevation, and condition; after which I prepared the July 2004 letter from the community showing all in favor of Option-E (Hearing Attachments 3 + 4). The current BHRd has a County Road easement across the southern hillside portion of the Perkins property. This road started in the late 1800's as a logging road hewn out of the rock hillside. Edwin Bernhardt purchased 60 acres using the road as the driveway to his house now owned by the Petersons. In the early 1900's with growth of a community, a 40' easement was granted to the County who have maintained it since as a low-traffic rural-access road into the area for wildland fire suppression, timbering, and residential community service. Being a gravel road, the County grades it a few times a year. A ravine washed out in 2002 needing replacement and there are two short sections with minor sliding where instead of simply further cutting into the slope the County has chosen the more expensive 'wall and fill' approach.

1) **Why not maintain the gravel road as is for it has served the area for 100+ years?**

Public Works states the average cost of maintaining a county road is \$5,300/mile. The proposed new road is a full mile; so, \$5,300/year once built. The existing gravel road is costing \$4,800 using 1990-2003 data provided to me by Public Works. This figure is after removing the one-time cost of fixing the very old ravine crossing in 2002 and some drainage work in those years. It would be nice to have a guardrail installed (\$80,000 per PW Option-E), a couple 10 mph max speed signs, and a bit of widening done to the 23% not already exceeding 18' in width. The current two 'wall and fill' minor slide areas would be better done by cutting a bit more into the hillside at a cost of probably not over \$20,000; especially since there is a local debris dump site. *(Please refer to the page of pictures of existing road as well as PW worked up Option-E.)*

For comparisons, the figures in the last column have been adjusted for inflation to 2004.			For 1990	1,833
			For 1991	4,054
			For 1992	10,831
			For 1993	2,132
			For 1994	3,876
			For 1995	7,017
			For 1996	3,775
drainage project = 7,366		added to	For 1997	6,600
			For 1998	4,760
			For 1999	3,442
drainage project = 3,204	upgrade project = 7,428	added to	For 2000	5,264
			For 2001	3,432
ravine repairs = 71,648	upgrade project = 724	added to	For 2002	4,755
ravine repairs = 6,370	upgrade project = 2,274	added to	For 2003	615
Major Repairs = 88,588	Current Project = 10,426	Rest of Maintenance	62,386	
		↓	↓	
(Ravine good for next 100 years!)			Yearly Regular Mnt:	4,800

2) Proposed new road needs another adjustment to truly follow property boundaries equitably

The Right-Of-Way Acquisition list of the 04 Dec 02 BCC Order #02-12-4-2 does not list any acquisition is to be done of Perkins property while it does list the adjacent Gray property. Further, PW in a letter to me in 2003 stated the Perkins property was not involved in any of the new road pathways. Yet what was received clearly shows a path going 130' into the Perkins property with a taking of over a full acre of that property while excluding all of the Gray property. It appears the idea is to use the existing 'private driveway' for convenience though it reaches deep into the Perkins property. Per the existing BCC Order #02-12-4-2 and the PW statement of following property lines equitably, the route should be as I have shown in orange on the attached Hearing's published colored image. Then Morse, Gray, and Perkins losses would be equivalent.

Perkins has looked into realigning the 'private driveway' along the property boundary and using the existing acre area for additional horse pasturing. The resultant 474' stretch would start on the existing driveway, go up a gentle slope gaining then down losing roughly 30', and then rejoin the existing driveway. If the orange line adjustment is done, then only the southwest leg which goes around the old Bernhardt now Peterson property would be impacted per a Right-Of-Way acquisition. This way, ALL the adjacent property owners would be equally losing portions of their lands as seems intended by PW in their latest realignment.

3) If the new road goes in, the existing needs to be vacated and returned to owners

PW is unclear on what will happen to the existing 100+ year old road. If it remains a public easement and route, there is concern the community will be surrounded by a one and a half mile circular racetrack out in the country side. With the abandonment by the State Police and the County Sheriff Department of the greater Florence area, and with it being outside the jurisdiction of the local Florence Police Department patrols, the race will long be over before enforcement arrives. This needs to be either the old road or the new and not any hybrid commitment by the County. If it is to be a new road, the existing old road must be returned to its owners with gates or some sort of temporary barriers installed on both ends. If vacated, Peterson and Perkins may opt to use it to access those lower parts of their property while also being neighborly keeping an alternative emergency access for use by the community. Morse allowed crossing their property by the BPA for their huge tower trucks when the tower was built and later by the community when the early 1900's built ravine washed out in 2002. There is a strong sense of mutual assistance within our community.

4) **Community voiced full support of fixing the existing road and full opposition to any new road**

In August 2000, the community approached PW to make the existing 100+ year old county road safer to use. Being an 18% grade gravel 77% greater than 18' wide road with no guardrails, there were concerns of driveability plus two minor slide area repairs that used now rotting away old bridge timbers. Prompted by PW, the community obtained a couple of bids for repairing/upgrading the existing road for \$450,000. PW pushed for a new road. Elisa Gray suggested and PW in 2003 worked up an Option-E for \$350,000 (see attached annotated copy). PW continued to push for a new road. In July 2004, a letter signed by community members was sent after further evaluation of the facts surrounding the road issue. PW still wants a new road. Option-E has full community support as by far the best solution, the least costly, and most desired. The new road (Option-C) is being forced upon the community complete with potential legal battles and confiscations. The question remains, why is PW with the support of the BCC insisting unless there is some hidden agenda?

5) **New road is more hazardous than the existing even if existing is paved**

Any time someone is traveling on a gravel road, the speeds are lower with 15mph the common speed on the existing road. The new road uses the existing BPA road which is paved on its steeper sections. The proposed being a 2-lane hardtop road will see speeds up toward 40mph. Option-E if done calls for a 1-lane paved strip which though speeds may be faster they will not be as fast due to the perceived danger of a single lane road. The existing road is roughly 18% grade climbing 265 feet while the new road has sections exceeding 22% grade and climbs 1/3 higher to 365 feet and then descends. There is concern about black ice and wet leaves on paved steep roads. The existing faces south with no sharp turns into oblivion. The new road at the worst part faces northeast, is shielded from the southern sun, and ends with a 90° turn facing a ravine. With the distance of the new road being three times greater, that also means three times the accident rate. AASHTO pg 50 says, "NCHRP Report 362 (5) found crash rates for unpaved roads to be lower for narrower roadway widths. Therefore, existing unpaved roads should not generally be widened as a safety measure ..." (See attached PW December 2004 produced distances and elevations of the original Options B, C, and E.)

6) **New road must mitigate environmental and endangered species issues the old existing does not**

The new road establishes a road through forest zoned areas that must be rezoned to allow it. The new road also requires clearing and impacting areas considered sensitive to endangered species. Those living on the Morse property, which is closest to the most sensitive areas, routinely see spotted owls just for starters. The spring waters which come out of a area of several acres is crossed by the new road. That year round water is used by four properties from Morse down to those across the highway (box and plastic piping). It is noted that such issues continue to be glossed over as though they have little financial impact to putting in the new road. None of these issues exist with the present 100+ year old road that even has a 40' easement.

7) **Recently enacted road standard does not preclude allowing Option-E on the existing road**

When this process started, the County had no rural road standard. It has since adopted one based on the private road builders' association AASHTO. A standard means it is a guide to provide the needed details with the view it will satisfy 90% of the cases. Beyond that, a variance procedure is available where with a good study and reasoning one may vary from the standard either to be more strict or less so. The number of parcels served and traffic volume per the adopted standard calls for a 40' wide Right-Of-Way with an 18' paved 2-lane roadway versus 30' and 12' paved 1-lane. AASHTO page 6 states, "Minor access roads are frequently narrow, and in some rural areas may function as one-lane roads." Option-E follows the recommendations of the 12' wide 1-lane paved road with turnouts, PW figuring planning for four turnouts. This is a minor variance which saves cost, keeps speeds down, and corrects current safety issues like with guardrails.

8) New road is estimated to cost in excess of \$1 million while fixing the old is at worst \$350,000

PW originally sold the new road (Option-C) to the BCC by stated the cost of \$175,000 for a 2-lane 18' wide 4,900' long asphalt road with guardrails through two ravines, across drinking water supply fields, with portions having 22% grades, across endangered species habitat (spotted owl for starters), requiring rezoning of forest lands, confiscation of private property with its related defence of action court costs, and in written documented opposition by the whole community. The community obtained two bids from reputable road builders stating it would cost \$450,000 to make the existing 2,000' road into a 2-lane 20' wide asphalt road with guardrails. PW in writing stated finding this bid to be in valid and correct. PW pushed for and BCC selected a new road believing it would cost only \$175,000 versus the \$450,000 option.

PW has reevaluated the new road to cost \$400,000 while there is little or no mention of how to mitigate environmental, endangered species, and private property acquisition expenses. It continues to appear the ultimate cost will clearly exceed \$1 million. At the suggestion of a member of our community, Option-E (attached) was worked up in 2003 by PW which repairs and uses the existing road for only \$350,000. The option is for a guard railed 12' wide strip of 3" asphalt on top of 6" of crushed rock on the existing road with 4 turnouts. This has no hidden nor concealed costs and the community continues to fully support it.

Page 5 of the PW 08 Dec 04 Agenda Cover Memo states: "The cost of implementing Alternative 3 (that is the PW worked up Option-E on the existing road) is roughly the same as the realignment options, so no real cost advantages are gained. However, this seems to have greater public support (BHRd community) and avoids possible complications working with outside agencies compared to the realignment option (EPA, DOF, Courts, etc.)." The community agrees, lets do the responsible Option-E.

9) Eminent domain confiscation of private property will not go unchallenged

Exhibit A is the list of properties from which Right-of-Ways are to be acquired. None of the parties on that list have been formally nor even informally approached to see if they would be agreeable. I am not aware of any who do not plan to mount a full press defense of their private property values which will be severely impacted by any new road. Most of us are essentially on the end of a cul-de-sac. It is quiet, it is secure, it does not expose our children and pets to fast moving cars, and we do not need to worry about becoming a roadside dump nor hangout site. This does not even address those impacted who are not on your list.

When asked specifically, the county road department reported it intended to use force through eminent domain to confiscate our private property. Where is the lawful basis for such a confrontational action? There exists a perfectly good road that has been used for over 100 years. Besides the early logging trucks, the existing road continues to have no problem handling trucks like the occasion ones carrying 10 cubic yards of heavy crushed rock. There is no public support nor demand to authorize a confiscatory action. To serve the public good is hard to prove when the served public vehemently are saying NO! The \$35,000 budgeted will not begin to cover the loss in property values nor the County's legal costs to eminent domain.

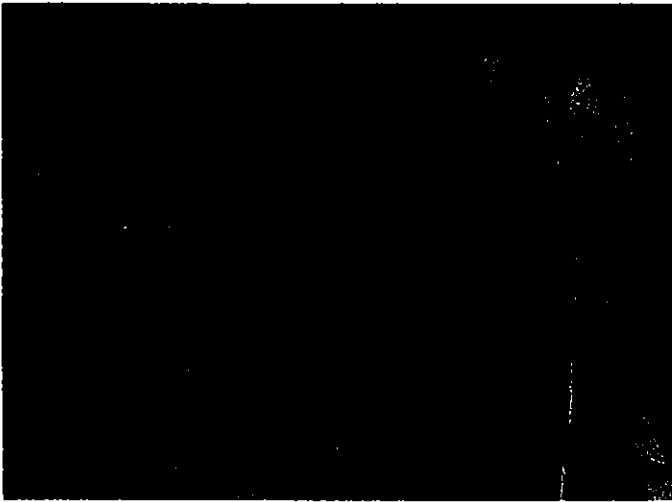
10) Thinking behind the push for a new road defies logic and call into mind corruption

A couple miles down 126, the county paved and maintains a 1/2 mile private driveway for the Waite family using County road funds. This is not a county road nor is there even an easement for such a road. Our community has a road which could use some minor safety improvements costing under \$100,000. If the County is trying to save money, it makes no sense to spend \$1 million when the savings would be better used elsewhere. If the intent is to come up with a reason to do nothing, this has been an expensive exercise without logic. Some mention this is a ploy to vacate the county road totally or at least use it to force the community into compliance. The community continues to try and find the logic why the PW wants a new road.

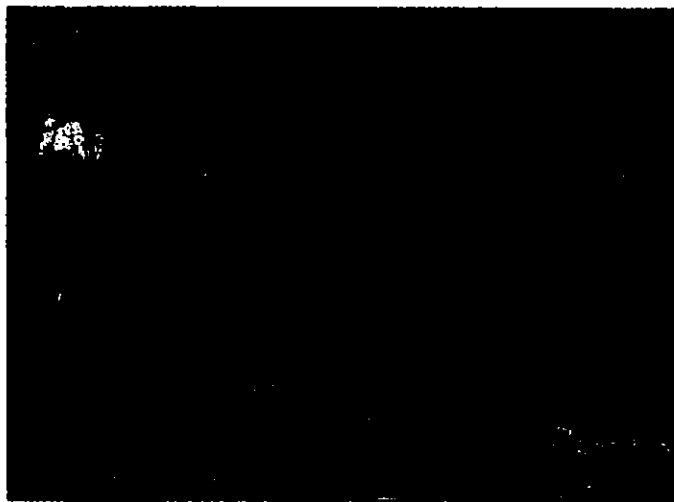
Keith Stanton

Keith Stanton, agent for Arthur Y. Perkins

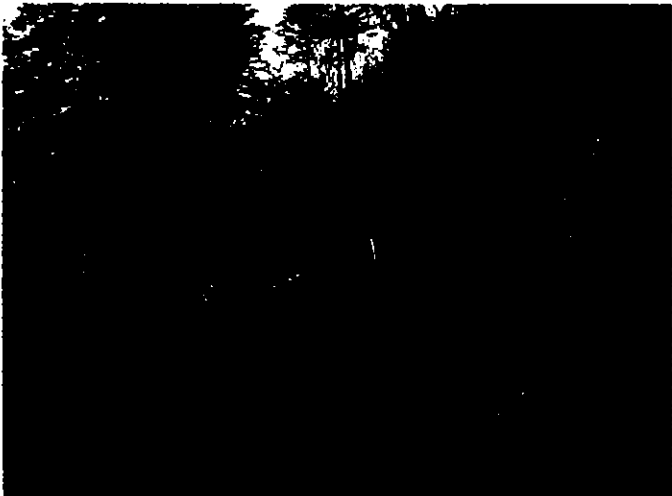
Pictures of Existing Bernhardt Heights Road



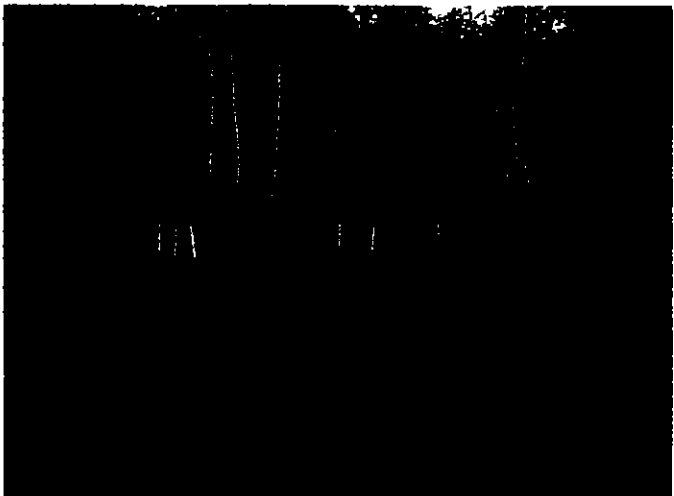
Starting point off Highway 126



Initial 90° turn to parallel slope

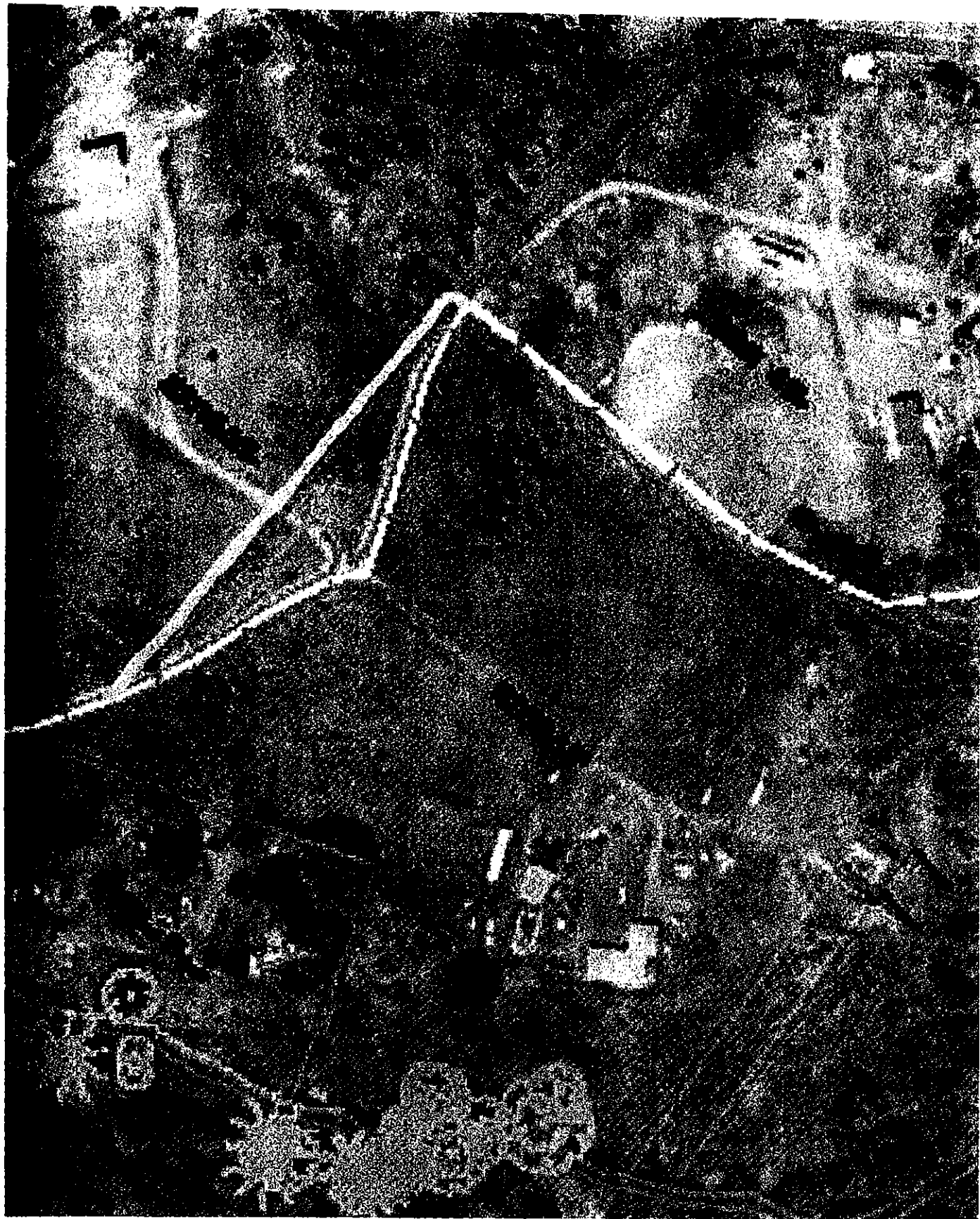


77% is 18' or wider with 18% grade

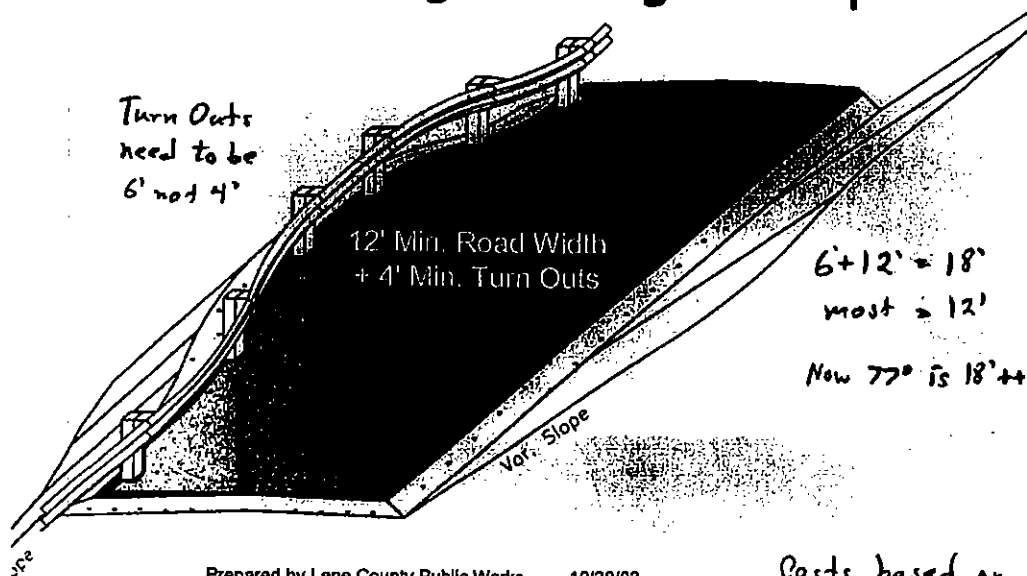


Top where continues 200' veering left





Bernhardt Heights Design Concept



Prepared by Lane County Public Works 10/29/03
I:\Projects\Bernhardt Heights\BcdOption E exhibit.doc

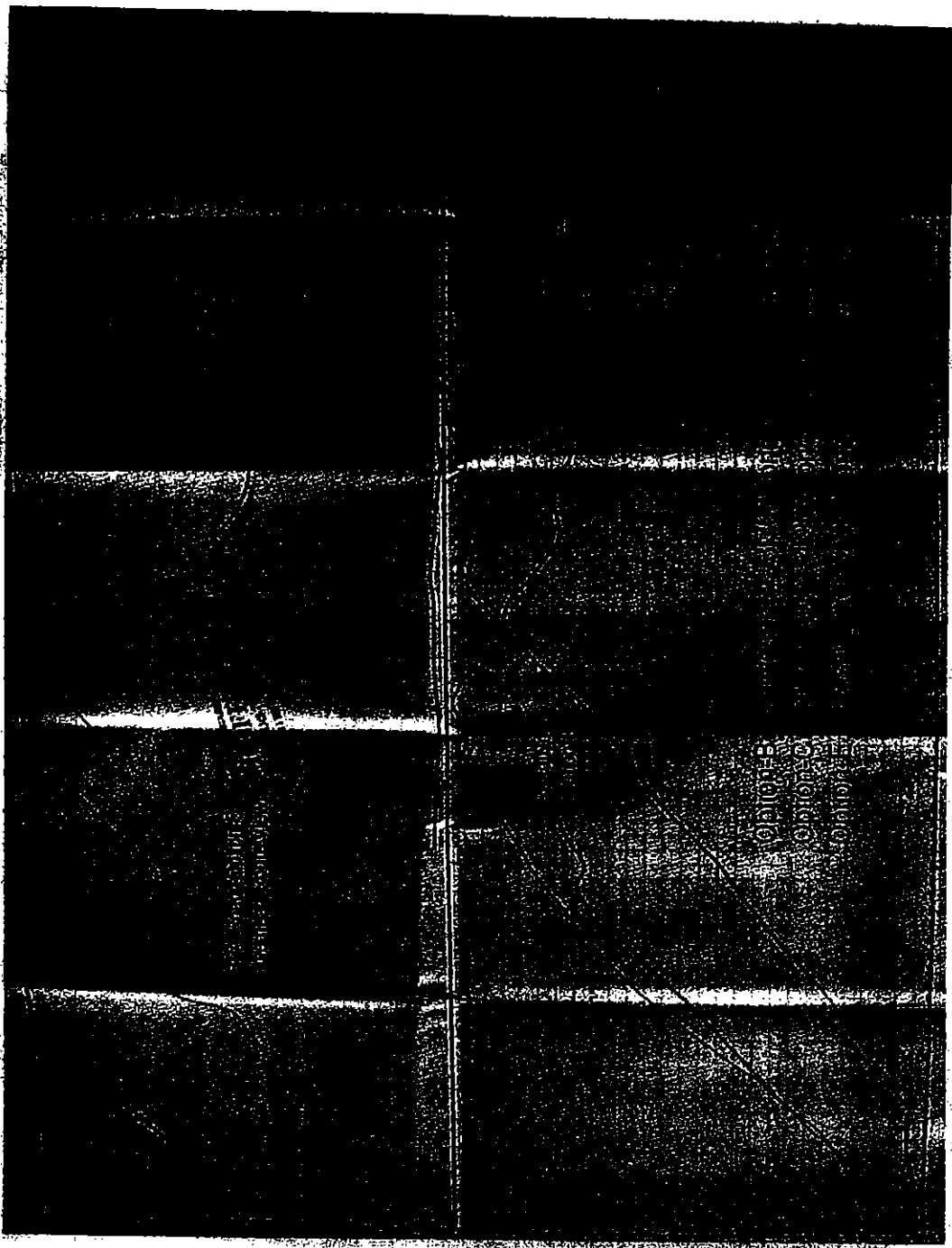
Costs based on
4 Turn Outs

OPTION E - Improving Existing Roadway

12-foot paved surface with intermittent 4-foot turn-outs

- 6" rock base -	\$20,000	} 35,000 12' roadway (45,000 with turnouts)
- 3" Asphalt Concrete surface -	\$15,000	
- Turn-out rock & paving -	\$10,000	
- Slide Repair - retaining wall -	\$150,000	} 80,000 Guardrail ← repair could be done for less = cut in
- Guardrail at retaining wall -	\$20,000	
- Guardrail at turn-outs -	\$20,000	
- Guardrail remaining length -	\$40,000	} Misc
- Fixing corners - excavation -	\$75,000	
TOTAL	\$350,000	

200,000 = road 150,000 = slide repair



Lane County Department of Public Works
Road Assessment System Property Listing - Sorted by Parcel Number
Bernhardt Heights Road

Parcel Number	Tax Lot Information	Account Number	Name and Address
1358-01	18-11-16-00		CENTRAL OREGON & PACIFIC RAILROAD 400 WEST 15TH STREET SUITE 1700 AUSTIN, TX 78701-
1358-02	18-11-15-00 TL #1100	0770337	COAST MARINA AND RV PARK PO BOX 1218 FLORENCE, OR 97439-
1358-03	18-11-16-00 TL #100	0770428	DAVIDSON INDUSTRIES, INC PO BOX 7 MAPLETON, OR 97453-
1358-04	18-11-16-00 TL #701	1060506	BONNEVILLE POWER ADMIN PO BOX 3261 PORTLAND, OR 97208-
1358-05	18-11-16-00 TL #600	0770493	BONNEVILLE POWER ADMIN PO BOX 3261 PORTLAND, OR 97208-
1358-06	18-11-16-00 TL #503	1304458	MORSE WENDELL & VERNA E PO BOX 1237 FLORENCE, OR 97439-
1358-07	18-11-16-00 TL #1001	1367380	PERKINS ARTHUR Y 7681 BERNHARDT HEIGHTS RD FLORENCE, OR 97439-
1358-08	18-11-16-00 TL #500	0770469	PETERSON GARY M & DEBORAH L PO BOX 2174 FLORENCE, OR 97439-
1358-09	18-11-16-00 TL #501	1645603	GRAY DANIEL A 7697 BERNHARDT HEIGHTS RD FLORENCE, OR 97439-

Lane County Department of Public Works
Road Assessment System Property Listing - Sorted by Parcel Number
Bernhardt Heights Road

Parcel Number	Tax Lot Information	Account Number	Name and Address
1358-10	18-11-16-00 TL #505	1645512	WILLS LINN W & KATHY A 07549 HWY 126 FLORENCE, OR 97439-