

Appendix B

Damage Survey Report

FEDERAL HIGHWAY ADMINISTRATION <i>Federal Lands Highway</i> DAMAGE SURVEY REPORT (Title 23, Federal-Aid System/Federal Domain)			Sheet No. ___ of ___ Site No. _____ Disaster No. _____
Applicant: _____	County: _____	State: _____	Inspection Date: _____
Location of Damage (Route No., Name of Road, and Mile Post)			ADT (existing): _____
Road/Bridge Data:	Bridge ID: _____	Type _____	Photographs: Roll No. __ Pictures __
	Traveled Way: Width _____	Type _____	
	Shoulder: Width _____	Type _____	
Description of Damage: _____			
Scope of Work: .			

COST ESTIMATE FOR EMERGENCY REPAIRS*

QUANTITY	UNIT	DESCRIPTION (Equipment, Labor, and Materials)	Unit Price	COST

Proposed: Force Account Contract

Total Emergency Repairs \$ 0

COST ESTIMATE FOR PERMANENT REPAIRS*

			\$	\$
			\$	\$
			\$	\$
			\$	\$
			\$	\$
			\$	\$
			\$	\$
			\$	\$
			\$	\$
			\$	\$

Proposed: Force Account Contract

Total Permanent Repairs \$

Identify Betterment if any and Provide justification* _____	Preliminary Engineering Construction Engineering Right-of-Way TOTAL ESTIMATED COST (Emergency and Permanent Repairs)	\$ \$ \$ \$
	Applicant _____	Date _____
Concurrence <input type="checkbox"/> Eligible <input type="checkbox"/> Ineligible	FLH Field Engineer _____	Date _____
Recommendation <input type="checkbox"/> Eligible <input type="checkbox"/> Ineligible	FHWA ERFO Coordinator _____	Date _____

* Attach Supplemental Sheets if necessary.

Instructions for Completing the ERFO Damage Survey Report (DSR)

Introduction:

As discussed in Chapter 2, the Damage Survey Report is used to describe the damage, and the method and cost of emergency and permanent repairs. This report is usually prepared by the damage assessment team.

The actual DSR form used by the Applicant may appear slightly different from the one shown here. This difference in appearance may be a result of the software used to prepare the DSR or additional information included by the Applicant. Before using a customized DSR form, the form needed to be reviewed and approved for use by the FHWA ERFO coordinator.

Prior to conducting detailed damage site inspections, members of the team should attend a briefing/training meeting and/or view the ERFO training video on conducting detailed site inspections and completing the damage survey report. During these meetings, the ERFO coordinators will explain how the detailed site inspections should be made and what types of photographs are needed for the damage survey report (DSR). The ERFO coordinators will also provide any other information considered important to insure efficiency of the ERFO program, including copies of this manual, instructions on its application, materials and equipment costs, and applicant information used in preparing DSRs.

The damage assessment team shall make a detailed inspection of each damage site. The data gathered determines the scope of work, and preliminary cost estimates, and shall include:

- (a) The extent and nature of damage,
- (b) Emergency repairs completed or those necessary,
- (c) Permanent work necessary to restore the site to its original condition,
- (d) Justification for betterments if proposed,
- (e) Cost estimates for eligible activities,
- (f) Repair options may be discussed on supplemental sheets. However one option shall be selected, and shown on the DSR form.

DSR Information Blocks

One or more damage sites can be reported on one DSR. For example: five culvert washouts along a road, four slump sites, etc. Large slides and bridges can not be grouped on one DSR. See the Chapter 2 for additional information.

The top portion of the DSR establishes who is applying for ERFO funds, where the damage occurred, and a short description of what damage happened.

Sheet No. ____ of ____ Sheet numbers are entered in order to sequence the DSRs

Site No. This a unique number. The DSR numbering system is normally created by the Applicant.. The following system is suggested:

AAA-XX-YY where AAA is either a letter or number identification for the national forest, BLM district, National Park, etc Indian reservation, etc; XX is the road number; and YY is the mile (kilometer) post.

Disaster No. The disaster number is provided in the Positive Finding letter and also is provided by the FHWA ERFO coordinator. WA98-1-BIA is a Bureau of Indian Affairs ERFO disaster in the State of Washington. It appears on every DSR for the disaster.

Applicant: Enter the name of the field unit (national forest, National Park, etc)..

County: Enter the name of the county in which the damaged site is located.

State: Enter the abbreviation of the State in which the damage site is located.

Inspection Date: Enter the date of the inspection.

Location of Damage: Enter the route number, name of the road, and milepost of the damage site in miles or kilometers according to your agency's metric policy.

ADT: Enter the average daily traffic for the road if known.

Road/Bridge Data:

Enter the bridge number and type of bridge, the widths of the traveled way and shoulders along with the type of surface.

Roll No. ___ Pictures ___

Enter the film roll number and picture numbers of the high quality color photographs taken at each site.

Description of Damage

Provide a clear as possible description on how the damage occurred and what the end result was. Describe how much of the road was lost, noting the length, width, and depth. Include the same information on the damage, such as slides, slumps, or washouts. Also include the size and condition of the damaged culverts, bridges, or other structures.

Indicate why an existing pipe needs to be replaced. Example: washed away, badly plugged with rocks, not salvageable, etc. Indicate why a larger culvert is needed.

Note any signs of a pre-existing conditions for slides and slumps. For example: sealed pavement cracks, vegetation growing in slope cracks, horizontal drains, etc.

If necessary, make a sketch or cross section drawing which illustrates the damage and current roadway width, and uses relative dimensions. Indicate the thickness of the pavement layers.

Scope of Work:

Describe the emergency repairs that were already completed at the time of the detailed site inspection as well as the additional emergency repairs that are required. Include the permanent work that was not accomplished as emergency repairs which is required to restore the damaged road or bridge to their original condition. For example “Repair an existing 900 mm corrugated metal pipe, backfill to existing road grade, and place gabions along the toe of fill slope.”

Provide a brief outline of each option on supplemental sheets, when several repair options exist. Then indicate which one is recommended.

Always try to remember that the purpose of the repair is to return the road or bridge to its pre-existing condition and not to rebuild the road to the current standard.

Review Chapter 3 to see what repair work is eligible and what proposed work is considered a betterment and requires justification.

COST ESTIMATE FOR EMERGENCY REPAIRS

The middle part of the DSR form contains space to identify the cost of the emergency repairs. All work that was performed prior to this damage site visit should be shown. If additional emergency repairs are anticipated, they also need to be included. Temporary traffic control devices and warning signs can be included. Include permanent repair work with emergency repairs if it is cost effective. See Chapter 3 for eligible repair work and materials.

QUANTITY Enter the number of units of equipment, labor or materials.

UNIT Enter the unit of measure.

DESCRIPTION Enter the name of the equipment, labor, and materials.

Unit Price Enter the unit price for the item.

COST The COST is calculated by multiplying the QUANTITY and the Unit Price.

Force Account Put an X in this box if the emergency repairs were done by the applicant's employees

Contract Put an X in this box if the emergency repairs were done by a contractor.

Total Emergency Repairs Add up the costs for each item and enter the total.

COST ESTIMATE FOR PERMANENT REPAIRS*

This section of the DSR form is used to report the estimated cost of making the permanent repairs at the damage site. You need to include such items as clearing and grubbing, debris removal, excavation, backfill, culverts, retaining walls, slope protection, construction materials such as riprap, base aggregate and paving mixtures; equipment rental and revegetation costs. See Chapter 3 for eligible repair work and materials.

Include the cost of mobilization which is the cost of transporting the necessary equipment, materials, and labor to the damage site. When estimating the cost of repairs for a site, equipment mobilization costs can be calculated (1) from the location of the equipment to the

damage site and (2) from one damage site to the next logical damage site. For the second and subsequent damage sites, the lower mobilization amount is to be used in estimating the total repair cost for that site.

The actual type of cost items which appear depend on whether the permanent repairs are to be done by the Applicant's employees or by a contractor. Do not forget to include erosion control, traffic control, betterments, and environmental mitigation.

QUANTITY Enter the number of units of equipment, labor or materials.

UNIT Enter the unit of measure.

DESCRIPTION Enter the name of the equipment, labor, and materials.

Unit Price Enter the unit price for the item.

COST The COST is calculated by multiplying the QUANTITY and the Unit Price.

Force Account Put an X in this box if the permanent repairs will be done by the applicant's employees

Contract Put an X in this box if the permanent repairs will be done by a contractor.

Total Permanent Repairs Add up the costs for each item and enter the total.

Identify Betterment if any and Provide justification* Provide a description of any betterments and their justification here. See Appendix C for a sample justification.

Preliminary Engineering Calculate the cost of preliminary engineering as a percentage of the total permanent repair cost. If the repairs are simple, use 15 percent. If geotechnical investigations, hydraulic studies, or environmental studies are need, increase the percentage used in this calculation. The percentage may also be increased if it is anticipated a consultant will be preparing the design.

Construction Engineering Calculate the cost of construction engineering as a percentage of the total permanent repair cost. If the repairs are simple, use 10 percent. If the repairs are complex, use 15 percent.

Right-of-Way Enter the cost of acquiring the right-of-way which is necessary to make the repairs. Consider using construction easements whenever possible.

TOTAL ESTIMATED COST Enter the total cost for emergency repairs, permanent repairs, preliminary and construction engineering and right-of-way.

If there is cost sharing on the road, adjust the total amount to reflect the government's share. ERFO funds can only pay for the government's share of the repair costs.

Applicant The Applicant signs the DSR form in this space.

Concurrence Blocks One of these blocks is checked by the FHWA Federal lands Highway engineer on the damage assessment team. The signature does not mean the repairs and costs described on the DSR are approved.

Recommendation Blocks One of these blocks is checked by the FHWA ERFO Coordinator. The recommended eligibility is usually accepted by the FLHDE and noted in the Program of Projects approval letters.

* Attach Supplemental Sheets if necessary.

Supplemental Sheets

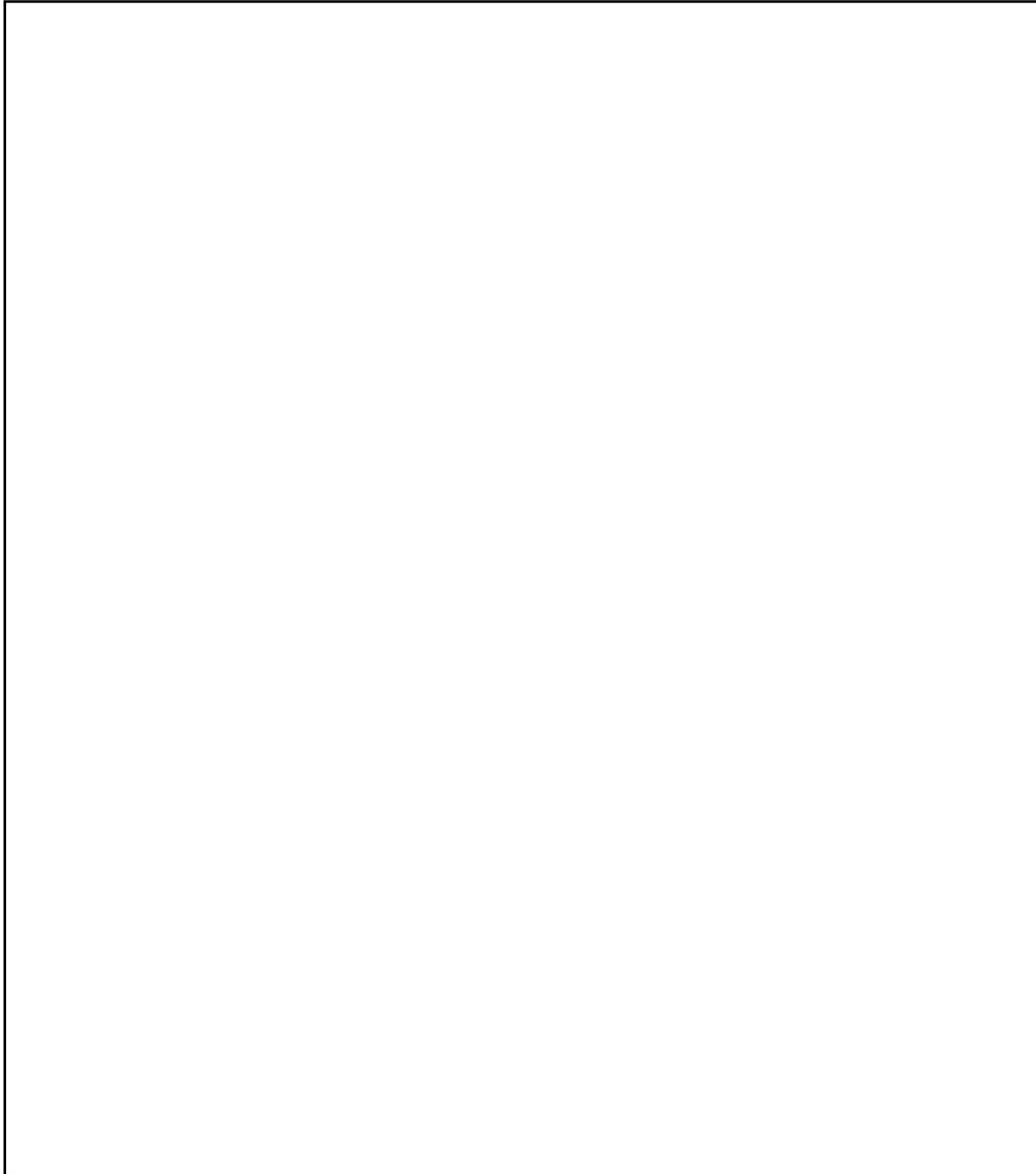
Supplemental sheets are used as follows:

- (1) for providing additional explanation of the damage, scope of work, estimated costs of repairs, betterment justification, etc,
- (2) for sketches or drawings illustrating the damage or proposed repairs. As the saying goes “A picture is worth a thousand words.”,
- (3) photos of the damage site (s),
- (4) a map showing the site location (s).

Duplicate all pertinent information about the site (s) at the top of each supplemental sheet by include the duplication block under this sentence.

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Applicant:	County:	State:	Inspection Date:
Location of Damage <small>(Route No., Name of Road, and Mile Post)</small>			ADT (existing):

FEDERAL HIGHWAY ADMINISTRATION <i>Federal Lands Highway</i> DAMAGE SURVEY REPORT (Title 23, Federal-Aid System/Federal Domain)			Sheet No. <u> 2 </u> of <u> 3 </u> Site No. <u> GP26-10.6 </u> Disaster No. <u> WA 96-2 FS </u>
Applicant: Gifford Pinchot NF	County: Skamania	State: WA	Inspection Date: 4/18/96
Location of Damage (Route No., Name of Road, and Mile Post) Road 26, Ryan Lake Road, Mile Post 10.6 at Quartz Creek			ADT (existing): 188



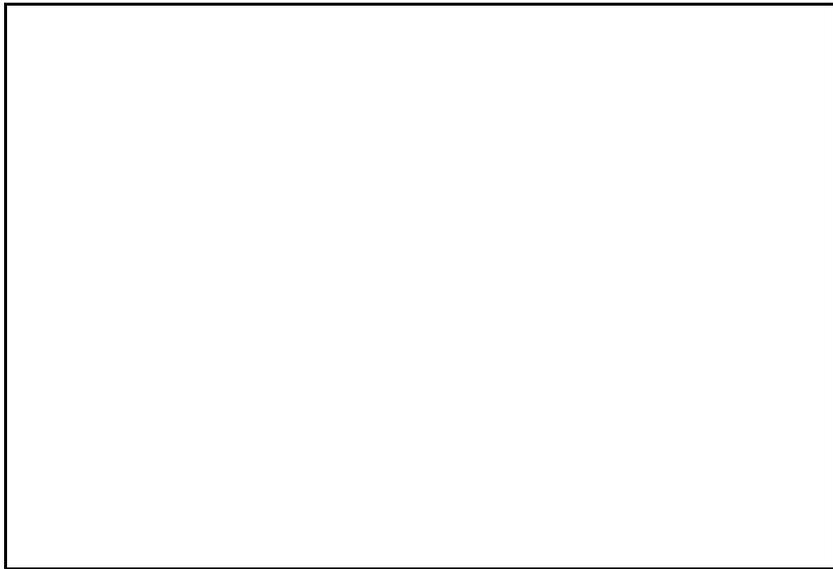
Site

Location Map

FEDERAL HIGHWAY ADMINISTRATION <i>Federal Lands Highway</i> DAMAGE SURVEY REPORT (Title 23, Federal-Aid System/Federal Domain)			Sheet No. <u> 3 </u> of <u> 3 </u> Site No. <u> GP26-10.6 </u> Disaster No. <u> WA 96-2 FS </u>
Applicant: Gifford Pinchot NF	County: Skamania	State: WA	Inspection Date: 4/18/96
Location of Damage (Route No., Name of Road, and Mile Post) Road 26, Ryan Lake Road, Mile Post 10.6 at Quartz Creek			ADT (existing): 188



Road 26, milepost 10.6
 Both ends of multi plate
 culvert visible



Road 26 milepost 10.6,
 Stream scour below
 road shoulder