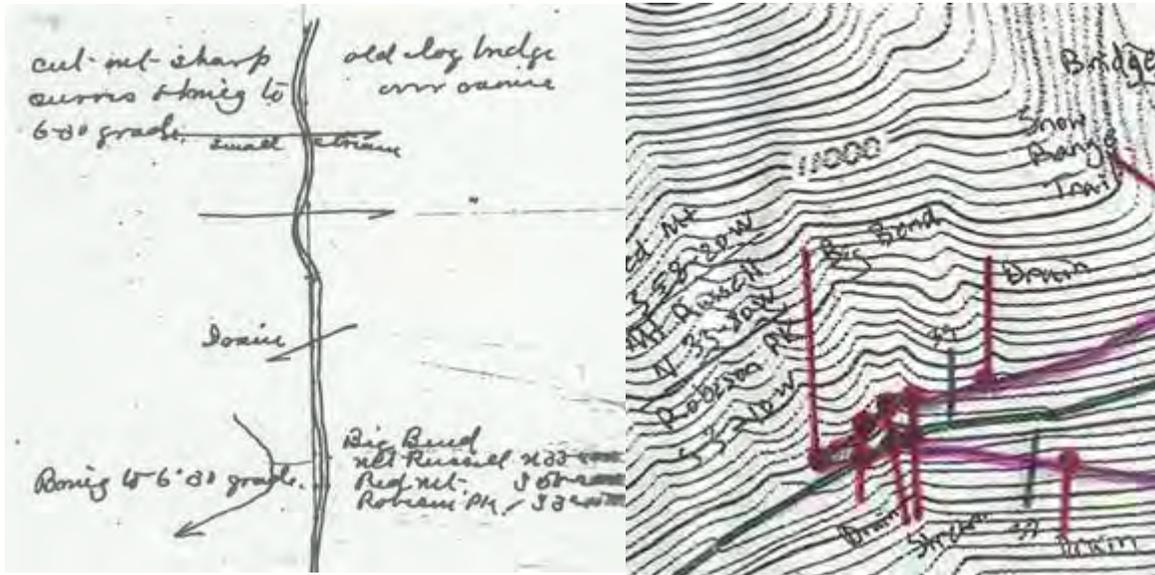


## MP 247 – 248: Maxwell’s Big Bend and the Upper Stanley Path

Between these two mileage posts is the location of Maxwell’s Big Bend, the only “switchback” or tight curve on the wagon road and the upper portion of the Stanley Avalanche slide.

Route	Mile Marker	X	Y	Longitude	Latitude
<sup>1</sup> U. S. Highway 40	247	432516.21	4403919.18	-105.788082	39.782544
	248	431155.03	4403068.51	-105.803887	39.774771

Frank Maxwell was hired by the State of Colorado to survey the Empire – Middle Park Wagon Road. He started at the tollgate located just west of Empire (MP 256) and surveyed the Pass using “100 foot chain” measurements. His survey journal dated August 10, 1891 was used by the *Team Pioneer* from the Colorado School of Mines



in 2004 to re-discover the location of the wagon road. The map on the left is from Maxwell’s journal, the map and worksheet on the right are from the students’ final report.

The following is a quote from their final report. It is included to show the amount of work that was done by these students to make this map of Berthoud Pass. Without this map, much that was learned with accuracy could not have been accomplished.

<sup>1</sup> Taken from the Colorado Department of Transportation’s website: <http://apps.coloradodot.info/dataaccess/Highways/index.cfm?fuseaction=HighwaysMain>

“We used data from Maxwell’s journal. We first had to learn how to read the journal. The first thing we learned was that you have to read the journal from the bottom of the page to the top. We discovered that the distances are listed on the left hand page in hundreds of feet, with bearings every time he changed directions. He also has data on the rise and fall of the land, and cost estimates for rebuilding and repairing the trail. The right page is a map of the area that coincides with the distances on the left page.

Maxwell’s data was translated onto a modern topographic map by hand. We then converted the data on the hand drawn map into UTM coordinates. From there we had to put our GPS coordinates into a database in Microsoft Excel, so we could then format it into ArcView.

To gather physical GPS data, went up to Berthoud Pass, and found a section of road that was well defined up near the Stage Station. We followed the road all the way down to where it met U. S. 40 below hoop creek (sic) and the ledges. All the way we collected GPS data in the form of latitude and longitude coordinates. We decided to submit the final project with data in UTM coordinates because they are simpler to understand and easier to use. Translating the data from one coordinate system to another was accomplished through our main mapping program. ArcView.”<sup>1</sup>



**The stage making the turn at Big Bend**

Photo provided by and used with permission from the Grand County Historical Society

Read more information on the [Georgetown-Empire-Middle Park wagon road](#).

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<sup>1</sup>Colorado School of Mines, Golden, Colorado 80401 EPICS 251 Submitted by Team Pioneer: Pamela Mencin, Tim Notz, Brooks Perry, Brad Stolz [Corridor Mapping Middle Park Wagon Trail Empire, CO to Winter Park, CO](#) Submitted to Carol Hunter – Partners for Access to the Woods  
Taken from the Executive Summary - April 29, 2004

The photos below were taken by the author to show the stone retaining wall that was part of the historic Maxwell's Big Bend. The wall is in the "Upper chute of the Stanley Avalanche". The orange fencing was put up during the widening project of the Pass.



The old U. S. Forest Service aerial photograph below on the left shows the wagon road in red, making the turn at Maxwell's Big Bend. The black line indicated the Snowy Range Trail which leads to an old mine and the foundations of a cabin.



The photo on the right is provided by and used with permission from Gregg Gargan: Colorado Department of Transportation Photographer



The map above, taken from the 1920 map used elsewhere in the Auto Tour, shows both the wagon road and the auto road. The auto road, called the Midland Trail, did not use the section of wagon road that went straight up to Maxwell's Big Bend, but instead, a new Big Bend was created that is now between mileage posts 248 – 249 and referred to as the Jones Pass Road or Henderson Mine turn-off.

Read more information on the [Midland Trail Auto Road](#).



These wonderful photos were part of the Construction Report of Berthoud Pass Forest Road Day Labor Construction written by Clyde E. Learned: Senior Highway Engineer and Approved by J. W. Johnson: District Engineer and dated 1920. The photos were provided by the Federal Highway Administration.

The caption in their report reads: “Steam Shovel #2 at work at Sta. 255. The new road crosses the old at this point.” The photograph on the right is numbered 3019. The new road is being built across the upper Stanley Avalanche chute.

Read more information on the [History of U.S. Highway 40](#).

Read more information on the [Midland Trail](#).



**Still photo from news video of Stanley avalanche crossing upper road  
January 18, 1998**

The letter below is dated January 23, 1998 and is written by John Unbewust, Regional Transportation Director for Colorado Department of Transportation to Ms. Pearsall who was President of the Berthoud Pass Recreation Corporation. Her husband, James Pearsall died on November 11, 1997 in a car accident just west of Empire, Colorado. Jim was 45 at the time of his death and he had been the driving force in opening the Berthoud Pass Ski Area in 1998. (See the Summit for more information about the ski history for Berthoud Pass.) *One of the slides that went that night was the Stanley.*

The following events could have been included in the section titled MP 249 – 250: Berthoud Falls, which contains information about the Stanley slide or in the section called MP 243: The Summit. It is included here, so that travelers can be aware of the immense power of this slide and the impact it has on travel over Berthoud Pass.

**Please do not stop in front of the slide area during the winter months.**

In summer months, or when there is no longer any snow in the chute, CDOT has created a wide shoulder, which is safe to pull over and enjoy the view of the valley below.

# STATE OF COLORADO

DEPARTMENT OF TRANSPORTATION  
Region 1  
18500 East Dolfax Ave.  
Aurora, Colorado 80011  
(303) 757-8371  
(303)366-1324 FAX



January 23, 1998

Ms. June Pearsall, President  
Berthoud Pass Recreation Corporation  
P.O. Box 3314  
Winter Park, Colorado 80482

Dear Ms. Pearsall:

I am writing to formally acknowledge and thank you for your staff's fine efforts on behalf of the Berthoud Pass travelers stranded at the top of the Pass during the January 17-18, 1998 severe snow storm. As you know the severity of this blizzard (winter hurricane may be more appropriate given the 80+ mph winds we experienced) was so intense that even our plows and avalanche forecaster were stranded on the Pass as well. Avalanches on both sides of the Pass precluded any travel off the mountain until avalanche control could be conducted in the morning and the roads cleared. I do not have an accurate length of road buried by snow slides, but I understand that it was several thousand feet given the bank slides and major avalanches that ultimately came down. The video captured the following day at the Stanley Slide by local news teams certainly was evidence of how bad the conditions were on the Pass during that night.

The public was indeed fortunate that your lodge and operation afforded them a safe haven through the night. I understand that your staff went out of their way to keep the atmosphere light and lively, while caring for the needs of these folks. I did not learn the actual number of motorists stranded, but understand it was somewhere between 70 and 100 people.

It is our intent to keep Berthoud Pass open and safe to travel 100% of the time. However, storms like this remind us that we will likely face the rare storm that requires the road be closed in the interest of public safety.

Thank you so very much for your fine efforts on behalf of the public. Please pass on my gratitude to your staff for the fine job they did.

Sincerely,

A handwritten signature in dark ink, appearing to read "John M. Unbewust".

John M. Unbewust  
Regional Transportation Director

## *Authors' Memories of January 17 – 18, 1998*

A fact according to the dictionary is something that existed or occurs, while a memory is a recollection or remembrance. Ray Mumford and I have tried hard to present the events of January 17 – 18, 1998 to the best of our ability, but as we both have said, it was a long time ago...

In doing the research for the Auto Tour, I found the letter (above) by accident that was written by John Unbewust of CDOT to June Pearsall, owner of the Berthoud Pass Ski Area, in the museum's archives in Hot Sulphur Springs. It brought back memories of a very special night at Berthoud Pass. In talking to Ray about the letter, he said he was on the chopper that brought the medicine and I said I was in the parking lot when it landed...we never knew. He agreed to write his memories to include here.<sup>1</sup>.

***But I am getting ahead of the story.***

First, Ray Mumford has included his memories (Ray was working for CDOT as an avalanche specialist) of that night and the following day.

On January 17, 1998 a major winter storm was hitting the northern and central mountains of Colorado hard. The Colorado Avalanche Information Center had issued an avalanche warning for the backcountry for the weekend and predicted the winds to increase over the area until dawn on the 18<sup>th</sup>. The weekend was the Martin Luther King Birthday holiday and the traffic count was very high.

The afternoon or evening of the 17<sup>th</sup> I had just gotten home from working on Loveland Pass which we had to close earlier in the day because of the winds that reduced visibility to near zero. I received a phone call from the CDOT dispatcher saying the Stanley avalanche path had avalanched putting a small amount of snow on the highway. At the same time several banks on the west side had slid making Berthoud Pass virtually impassable. An Avalanche Forecaster from CAIC was on the Pass when the Stanley avalanched and recommended that the highway remain closed along with I-70 from Georgetown to Vail until control work could be conducted the next day. This left many motorists stranded on the pass for the night. Luckily, the Berthoud Pass Ski area was still in operation and they opened the doors for the motorists for shelter through the night. When I got the call, I was requested to respond to Berthoud Pass in case of any emergency that might come up during the night and to prepare for avalanche control in the morning. A helicopter was already at the CDOT facility at Empire Junction but the wind and snow conditions looked like it would prevent the helicopter from flying. The crews brought the 105 mm howitzer cannon to the firing location at dawn to wait for a clearing to shoot. The snow fall ended shortly after day break on the 18<sup>th</sup> but the winds were still too high to fly the helicopter, so the Howitzer was set up and was shot. On the second shot a large avalanche released depositing 15 to 20 feet of snow on the upper highway. Shortly after that the winds calmed down enough to fly the helicopter so we loaded the charges on the helicopter and took off for Berthoud Pass. Ed Fink was in charge of the mission and I was flying as the bombardier. While we were conducting control work on the west side of Berthoud, we received a call from our dispatcher that one of the parties stranded at the ski area was in need of medication. Arrangements were made with the Grand Co. Sheriff's department to have the medication brought to the road

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<sup>1</sup> . I have contacted the Clear Creek and Grand Counties sheriff departments and the Colorado State Patrol. The year 1998 was when most of them began to put their information on computers, so it would be difficult to find the records, if there were any for this event

closure gate at the bottom of the pass on the west side and we would pick up the medication and fly it to the ski area for the person that was in need of it.

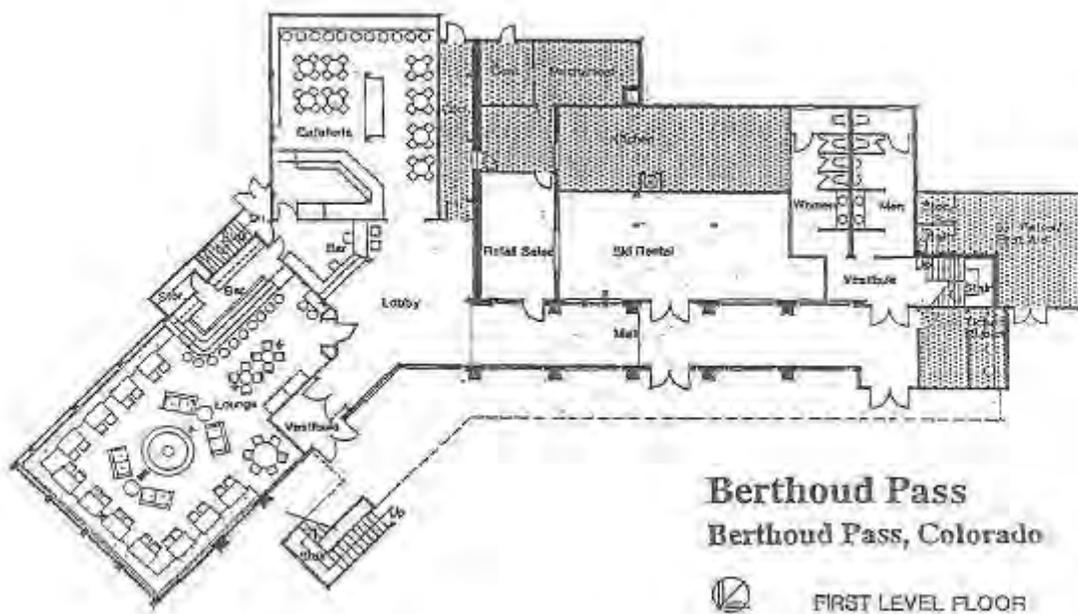
Thank goodness the Berthoud Pass ski area was in operation and the trained personnel from the ski area were there to handle the emergency. If they weren't there, the outcome would not have been nearly as good.



Now for the author's....

I was working at the Ski Lodge then as the retail manager. We had been open for only a short time. It had been a busy but good day. We had closed for the day and some of us were just visiting on the deck before heading down the mountain for our homes. I don't remember how we knew the Pass had been closed on both sides and that CDOT wanted us to take in those stranded between the slides that had happened on both sides of the Pass. I do recall that we were in touch with CDOT throughout the night and the next day. The general manager had already left for the day. He would help later in the event by being at the bottom of the hill. I just remember that people just kept coming and coming. It was estimated that by night fall we had taken in 90 people, including many young children and DOGS, lots of dogs. The remaining staff seemed to be everywhere, helping all and seeing to their needs as well as checking the operation of the Lodge. There were at least two ski patrol groups and they would play an important part in the well-being of one of our own the next day. We even had some CDOT workers who had been caught between the two slides and could not get down.

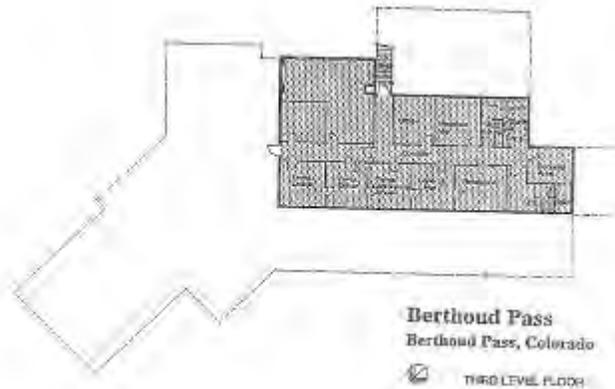
There was a phone in the retail office and this was put in the hall with a ski patrol lady manning it. Guests were allowed one 5 minute phone call to family or friends to reassure them they were fine, before they would have to go to the end of the line, as others took their turn. The long hall where the telephone line was located was also lined with dogs. I was amazed at how well behaved they were.



I remember with a smile, two very well dressed men, who came up to me and said that they had been short-order cooks in college and they would be glad to handle the kitchen and they did. There had been a wedding at the Lodge before we opened and there was a keg of beer with some left. This was used and enjoyed by the young adults in the bar that night. Beer pitchers were put out for donations to cover the cost of food that was served that night and for breakfast the next day. I recall being relieved that the donations covered the cost of the food that had been used.



The second floor was turned over to families with young children. The ski patrol gave out blankets and helped make them comfortable for the night. The third floor was used by the Lodge personnel and the guest ski patrol. I remember walking the halls at midnight and people were asleep. Looking in on the second floor, the floor was a sea of bodies, with only soft whispers of parents reassuring their children. In the bar, the young people were gathered around the fireplace swapping stories and some snoring.



Our crew took out the big front end loader and closed the entrance to the Lodge after dark, out of concern that people would try leaving in the night and going down the Pass, creating a danger for themselves and others who might have to rescue them. As soon as CDOT gave the word, it was opened again in the morning.

In the morning of the 18<sup>th</sup>, there was a lot of activity. CDOT was trying to open the Pass on both sides. It was learned that the head of maintenance<sup>1</sup> of the Ski Lodge was without his heart medicine and was not doing well. He needed his medicine. We contacted CDOT and others, including the general manager who was at the base of the Grand County side of the Pass. We were told to clear the parking lot for a space for the chopper to land, and also of people as the chopper was loaded with dynamite. I remember what a very short time they were on the ground.

Then it was over, the road was open on both sides of the Pass. How quickly they went after saying thank you, “We’ll never forget” and off they went.

I remember the event as one where complete strangers came together, helped one another and enjoyed each other’s company. It is one of those special memories of Berthoud Pass.

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<sup>1</sup> In talking with him about the event, he says he remembers only a little. He is now a great-grandfather who is alive and well enjoying Colorado.



Photo by author – date not known

Information has been provided about the *Stanley Avalanche* in the section for MP 249 – 250.



The two CDOT photos above were taken on January 18, 2011 of the upper Stanley, thirteen years after the one told about above.



The photo on the left was taken by George O'Neil, Jr. who works for CDOT.

The front end loader is parked in front of the upper Stanley slide as a size comparison.



The CDOT crew at Berthoud Falls, answers the question, ***“How tall is that thing?”*** asked by the author.

Answer: 11 feet 8 inches!!!

**Avalanche Path:  
Stanley Banks**

**Location:** 247.3

**Terrain Specifications:**

Starting Zone elevation: **10,300 ft.**

Vertical fall to roadway: **60 ft.**

Runout Zone elevation: **10,240 ft.**

Maximum vertical fall: **60 ft.**

Length of path: **140 ft.**

**Avalanche Data:**

Length of road affected: **2,000 ft.**

Average avalanche activity/year: **N/A**

Average avalanche activity affecting road/year: **0.05**

**Control Methods:**

Static Control: **None**

Mobile control: **None**

**Comments:** This bank slide was created when the highway was widened in 1987 and the hazard was nearly eliminated when the highway was reconstructed and retaining wall built in 2008.



Photo of the Stanley cut bank by Raymond T. Mumford - 2011