

Big Sky Transportation Review



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March 30, 2016

Acknowledgement

The author thanks Kitty Clemens, Executive Director, Big Sky Chamber of Commerce, along with her staff and the Board of the Big Sky Chamber of Commerce for this opportunity.

The author also thanks Steve Albert, Executive Director; and Pat McGowen and Taylor Lonsdale from the Western Transportation Institute for their assistance with this project.

Finally, the author thanks the more than 100 people from the Big Sky Community who attended the three meetings held in Big Sky to discuss the various transportation issues that exist in the community. The insight of the community helped to highlight the various issues noted herein, which will help us begin to address these issues in the near future.

Disclaimer

The views and opinions noted herein are those of the author, and are not necessarily those of the Western Transportation Institute, Montana State University, the Big Sky Chamber of Commerce or the Montana Department of Transportation.

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Introduction

The Big Sky Chamber of Commerce has led efforts to understand various issues affecting the community. The Chamber recently developed a study/plan addressing affordable housing issues. As part of this current effort, the Chamber is beginning a process to identify transportation issues in the community.

The community of Big Sky is unique in that it is an unincorporated area that straddles two counties, Gallatin and Madison. The “Canyon,” “Meadow Village” and “Town Center” are all in Gallatin County, while the “Mountain Village Center” is in Madison County. Big Sky Resort, Moonlight Basin and the Yellowstone Club are all within Madison County, while the Spanish Peaks Resort actually has property within both counties.

Given that it is an unincorporated area, Big Sky must rely on either or both counties to act on its behalf for many transportation issues. This is especially true when working with the Montana Department of Transportation (MDT), which is responsible for the main roads that access Big Sky, US 191 and MT 64 (Lone Mountain Trail).

The Chamber is concerned about transportation issues because there is tremendous growth within the community, which is leading to an increase in traffic. Figure 1 shows the Average Annual Daily Traffic (AADT) for traffic on US 191 (approximately 1.5 miles north of the US 191/MT 64 junction, RP 49.4). Figure 2 shows the AADT for traffic on MT 64 (RP 1.6, near the retention ponds). AADT is the total volume of vehicle traffic of a highway or road for a year divided by 365 days, and is a useful and simple measurement of how busy the road is.

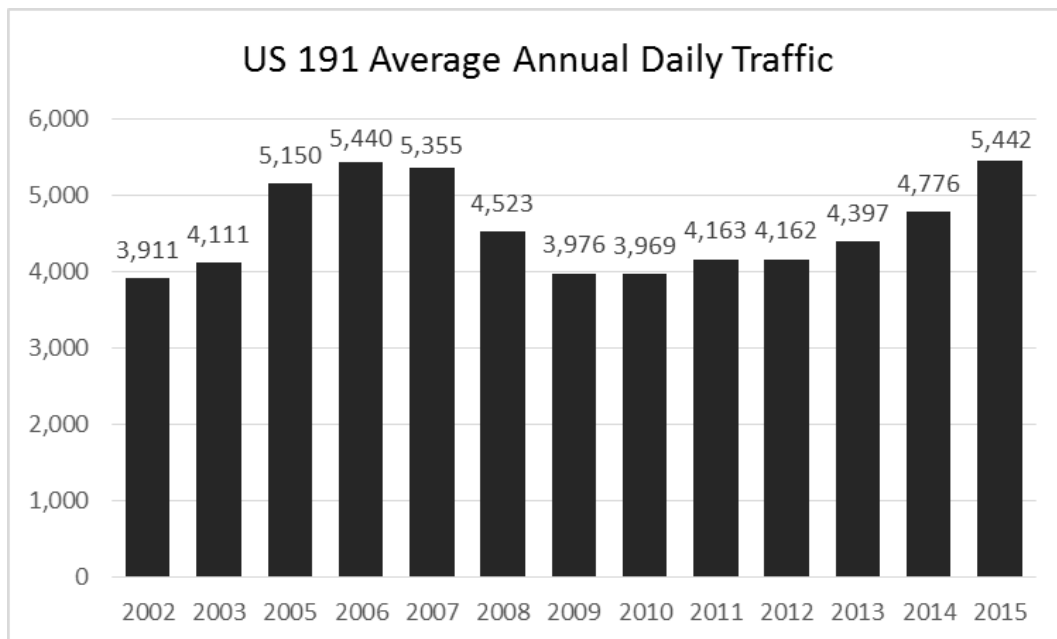


Figure 1: AADT on US 191

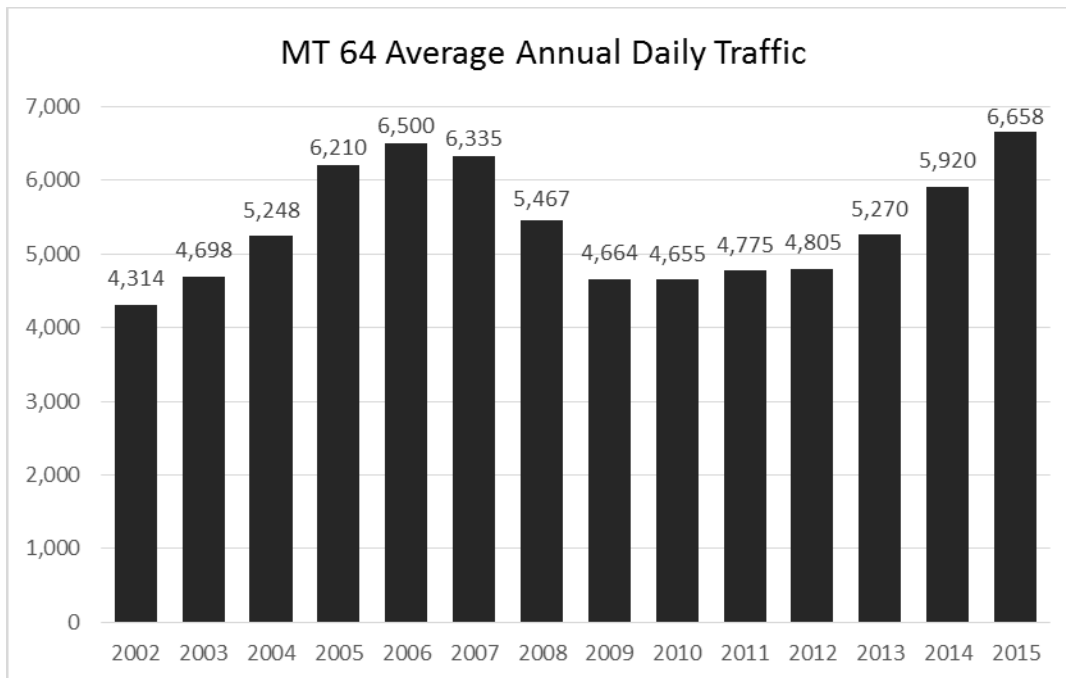


Figure 2: AADT on MT 64

From Figures 1 & 2, it is easy to see that the traffic levels in and near Big Sky have surpassed their pre-recession numbers. When noting the location of the traffic counters, and other locations in this report, the Reference Point or “RP” is noted. The RP is based on the location relative to the Mileage Marker or location on the roadway. For reference, the US 191-MT 64 intersection is at RP 47.9 on US 191, and the intersection of MT 64 and Little Coyote Road (into the Meadow Village Center), is at RP 2.0 on MT 64.

In order to determine the transportation issues in the Big Sky area, the Chamber of Commerce hosted three community meetings in early 2016. During these meetings, Kitty Clemens, the Chamber’s Executive Director, made a short opening presentation. David Kack from the Western Transportation Institute also provided some opening remarks. The main emphasis of the meetings, however, was to hear from those in attendance.

This report summarizes comments and concerns expressed at the community meetings. It also presents conclusions, recommendations, and next steps for how to address some of the principal transportation issues facing the Big Sky area.

Community Meetings

A total of three community meetings (listening sessions) were held in Big Sky on Wednesday, January 27 (from 9 to 11 am); Wednesday, February 3 (from 6 to 8 pm); and on Thursday, February 4 (from 4 to 6 pm). Two stations (tables) were arranged in the lower level of the Big Sky Chapel (Figure 3), and after a welcome and general overview, those in attendance were

split into two groups and asked to share their transportation related views and concerns with the WTI staff.



Figure 3: Big Sky Community Transportation Meeting

Meeting participants could provide comments through the group discussion (at each table/station), by writing comments on clipboards located at each table/station, or by sending an email to the Big Sky Chamber of Commerce, who passed those comments on to WTI. Discussion of transportation issues was focused on three main areas within the community: the “Mountain,” or the area around Big Sky Resort; the “Town Center – Meadow” area; and the “Canyon.” While US 191 from Bozeman (or Four Corners or Gallatin Gateway) was not an emphasis, there was some discussion of issues on that road, since it is the main road for accessing Big Sky. Further, those participating in the process were told that the purpose of the meetings was not to discuss “local streets” or those streets within a particular development, but to focus on the streets and roads that are used by a majority of the community.

The following sections highlight the issues discussed about each area within the community.

Mountain

Participants noted that the issue of greatest concern in the Mountain area is the intersection of MT 64 (Lone Mountain Trail) and Big Sky Resort Road (also known as the “Dam Road”). It is the primary intersection on the mountain, and it provides the main access to the Big Sky Resort (Huntley, Shoshone and Summit buildings) and many of the condominiums in the area. As shown in Figures 4, 5 and 6, there are no turn lanes, and limited visibility for those who are making a left-hand turn to see other vehicles coming down the mountain.



Figure 4: Junction of MT 64 & Big Sky Resort Road



Figure 5: View of MT 64 and Big Sky Resort Road Intersection



Figure 6: Aerial View of MT 64 and Big Sky Resort Road Intersection

The intersection of Sitting Bull Road and MT 64 has the same issues as those noted for the intersection of MT 64 and Big Sky Resort Road (poor sight lines and no turning lanes). Further, there was a discussion of how people may access Big Sky Resort if the large “free parking” lot is developed into housing/lodging.

Finally, there was some concern about the placement of speed limit signs for those driving down the mountain. This is due to the fact that there is only one 45 mph sign just below (to the east) of the MT 64/Big Sky Resort Road intersection. With it being relatively easy to pick up speed heading down the mountain, participants recommended that MDT put speed limit signs in key locations coming down the mountain to remind drivers of the speed limit.

Town Center/Meadow

The highest concentration of intersections along MT 64 is likely in the Town Center and Meadow Village areas. Driving down the mountain, the concentration of intersections (or more heavily used intersections) starts at the Lone Mountain Ranch Road (RP 3.7), and continues down the mountain (to the east), past the new intersection into the Ace Hardware store (RP 1.5). There are roughly 10 intersections on one or both sides of MT 64 along this 2.2 mile section of road. There is a concern that something should be done with many of these intersections to control traffic, whether that be through the use of roundabouts or signaling the intersections. With the growth of the intersections along MT 64, participants noted that many of these intersections don’t have turning lanes to separate turning vehicles from the through flow of traffic.

Residents voiced concern about several specific intersections, including the new turn/access point to the Ace Hardware store, the turn into the Meadow Village (Market Place), the turn into the Bozeman Health Big Sky Medical Center and the turn into Huntley Drive. The intersection of Big Pine Drive and MT 64 could likely use turn lanes, as well as the intersections of MT 64 and Andesite/Lone Walker Road and MT 64 and Little Coyote Road. Residents are concerned about the intersection of MT 64 and Andesite/Lone Walker Road because when coming from the east, driving up the mountain, the sight line to the intersection is reduced as they are coming up over a hill. As a result, they don’t have a good view of the intersection upon approaching it. Participants also noted that the bridge on MT 64 between RP 3.4 and RP 3.5 was in poor shape.

Without much intersection control, except for the use of stop signs, and due to the increasing traffic volumes on MT 64, residents voiced a concern for those trying to cross MT 64 on a bicycle or walking. They also noted that wildlife tends to cross the road in this area, and given the speeds of vehicles, animal/vehicle conflicts can be an issue. There were a few comments noting that while there is a separated pedestrian pathway along the south side of MT 64 from Big Pine Drive to the intersection of MT 64 and US 191, this pathway is not plowed (kept clear of snow) in the winter.

In addition to issues with MT 64 and the various intersections along MT 64, participants noted specific concerns with other roads in this area. Given the increased traffic on MT 64, some residents voiced a concern that people were using Little Coyote Road as a bypass, and were driving too fast on the road (speeding).

In the Town Center area, Ousel Falls Road is the main roadway, and participants expressed many comments about that road. There were concerns about people speeding on the road, and not yielding to pedestrians. There are numerous businesses and residential units along Ousel Falls Road, with many pedestrians crossing the road. In particular, participants pointed out that the intersection of Ousel Falls Road and Aspen Leaf Drive is a particularly troubling intersection for pedestrians. As Ousel Falls Road is the main road used to access both the Spanish Peaks Resort and Yellowstone Club, it experiences a high level of construction traffic (large trucks). Some of this construction traffic is spilling over on to Aspen Leaf Drive, Rainbow Trout Run, Simkins Drive and Spruce Cone Drive, which are primarily neighborhood streets (Figure 7).

During the winter, large trucks heading to Spanish Peaks Resort and/or Yellowstone Club must put on tire chains. Participants noted that there is only room for two trucks in the chain up area along Ousel Falls Road, so therefore many trucks will use other “unofficial” areas to chain up, which can cause traffic safety issues.



Figure 7: Construction Trucks Parked on Residential Street in Big Sky
(Photo Credit: Kitty Clemens)

Another major concern relates to wildlife. As MT 64 leaves the Town Center and Meadow Village Center heading east (toward US 191), there is a curve in the road at approximately RP 0.7 where there are issues with Big Horn Sheep. There can be animals on the roadway, or people stopped to look at the animals (Figure 8). Given the curve in the roadway and the speed (50 mph), it is no surprise that there are three white crosses in this area, indicating three fatalities. The Big Horn Sheep are a concern along the eastern section of MT 64, and are also seen on the roadway near RP 0.3



Figure 8: Big Horn Sheep on MT 64 (RP 0.5)

Finally, the bridge on MT 64 at RP 0.2 is in poor condition and many people noted the significant number of potholes on the bridge deck.

Canyon

In Big Sky, the “Canyon” refers to that section of US 191 that generally runs from RP 49 (about one mile before the US 191/MT 64 Junction) to roughly RP 42.9 (at the Corral/Rainbow Ranch area). Residents have several concerns about the speed along US 191. The speed limit is 60 mph, until slowing to just 55 mph at RP 48.1. The speed limit increases back to 60 mph at RP 47.4. There is a reduced speed zone of 45 mph for the area near Ophir School that is in effect when the lights are flashing (see Figure 9). This reduced speed zone is from RP 45.5 to RP 45.1.



Figure 9: School Speed Zone Sign on US 191 (heading north)

Residents also identified an issue about the intersection of US 191 and MT 64. There was discussion of the signal timing, and that there should be a left-turn arrow (left turn prioritization) for traffic heading north on US 191 making a left onto MT 64 (heading west, or up the mountain). Given the heavy amount of traffic turning up into Big Sky from the north, a few people indicated that they must often wait through two or three phases of the signal before they can take a left and head up MT 64.

Distracted driving is also a concern at that intersection. When coming from Bozeman (to the north), there is no cell phone coverage in Gallatin Canyon from approximately RP 68 until RP 48, the US 191/MT 64 Junction. Therefore, at a critical time when drivers should be paying attention to the intersection, many find their cellphones to be ringing or buzzing. Given the many turning movements at the intersection, cell phone distraction causes a serious safety issue. Wildlife can also be an issue on US 191 in this area, particularly from RP 49 to 47.8, near and through the US 191/MT 64 Junction.

While the main purpose of the community transportation meetings was to focus on issues within Big Sky, many people commented on issues regarding US 191, since it is the primary road used to access Big Sky. In addition to the issues noted herein, many people commented that drivers are not using the pull-outs along US 191 between Big Sky and Gallatin Gateway. It was also noted that there is no signage along US 191 on when drivers should use the pull-outs (or turn-outs). The use of turnouts is regulated by Montana Code Annotated 61-8-311 Minimum Speed Regulations (see Appendix B). It was noted that only a few of the turn-outs are large

enough to be used by larger vehicles (pickup trucks with trailers and semis), and those turn-outs should be specifically signed. Participants also noted that during the year, especially in the summer, the turn-outs are often used by people who park their vehicles there to fish in the Gallatin River. Therefore, some of the turn-outs are not available for slower vehicles who want to pull over and let traffic by.

Many of the people at the meetings commented on the heavy amount of truck traffic on US 191. They noted that while some of that traffic is coming to Big Sky (especially construction traffic), much of it is simply using US 191 as a through route. There was concern that hazardous materials may be carried on US 191, and many were interested in more enforcement by the Montana Department of Transportation's Motor Carrier Services division.

General Issues and Concerns

Many of the transportation concerns voiced by those at the meetings were focused on specific areas or intersections. However, participants also expressed some general concerns, which can be grouped into the following categories: Access/Parking, Funding, Speed, and General.

Access/Parking

Several of those in attendance wondered if Jack Creek Road (from Ennis) could be upgraded to a public road (County road), or if it could be improved for emergency access or evacuation purposes. Overall parking availability was noted as a concern, and several people wondered how people would access the Big Sky Resort (ski area), if the current free or day-skier lot was used in the future for the development of more buildings/condos. Someone also asked if at some point there would be a gondola from the Town Center to the Mountain Village Center.

As noted earlier in this document, cell phone coverage does not exist in Gallatin Canyon. Therefore, many drivers may be distracted as they approach the US 191/MT 64 Junction, when they once again obtain cell phone coverage, and their phones ring or buzz. When this occurs, many truck drivers (and other drivers) pull off to the side of the road (MT 64) by the Conoco gas station and Chamber of Commerce to check their cell phones. This leads to a safety hazard as it creates for poor sight lines for other drivers, especially those trying to turn in or out of the Conoco and/or Chamber of Commerce parking lots (Figures 10 & 11).



Figure 10: Trucks Parked on MT 64 (Near Conoco & Chamber of Commerce)



Figure 11: Sight-Line Issues Caused by Trucks Parking on MT 64

Funding

Many people asked about funding for all of the potential projects that may come about after a potential transportation plan is completed. Several people also asked how additional funding for Skyline could be obtained to expand the public transportation services in the area. In a related topic, some participants wanted to discuss the ownership of the road, and who is responsible to pay for the maintenance (and possible refurbishment) of the roads. Other than MT 64 and US 191, most roads in Big Sky are funded through Home Owners Associations or Road Improvement Districts.

Participants commented that there are property taxes being assessed in Big Sky by both Gallatin and Madison Counties for “road taxes.” However, neither County is currently responsible for any roads in the Big Sky area.

Speed

Speed was expressed as a concern, as noted in the discussions of many of the roadways/areas highlighted earlier in this document. Many residents thought that Big Sky would be safer if the current speed limits were enforced. Several residents also thought that in addition to enforcement, speed could be controlled through placement of more speed limit signs (primarily on MT 64). Traffic calming techniques were discussed, and several residents asked about the use of speed trailers, which show the speed limit and an approaching vehicle’s speed, on US 191 and MT 64.

General

Given that Big Sky is a resort community with many visitors, residents at the meeting voiced their concern at the level of drinking & driving in the area. Several residents recommended enhanced enforcement of the DUI (Driving Under the Influence) rules and promotion of alternative modes (public transportation, taxi rides and shuttles), so that there were safe ways for people who shouldn’t be driving to get home.

Some people expressed concern about the condition of the bridge decks, and the general maintenance of the roads in Big Sky. As noted elsewhere in this document, traffic levels have increased significantly and there is a high level of construction traffic on roads in Big Sky. Given the amount (and type) of traffic along with the funding and road ownership issues noted, there will be continued discussion of how to maintain the road network in Big Sky. As expressed by one resident, “there needs to be a major discussion about jurisdictional issues and cooperation of relevant parties if we are going to fix all the transportation issues in the community.”

While some participants expressed a need for more speed limit signs, especially along MT 64, others commented that there may be too many signs, leading to sign clutter, on US 191 and MT 64. Some noted that there are numerous signs near the US 191/MT 64 Junction in the Big Horn Center area (RP 48).

Further, given how road conditions can change rapidly in the area, there was a discussion of using technology to implement variable speed limits on US 191 and MT 64.

Conclusions & Recommendations

Based on the input of more than one hundred Big Sky residents, it is obvious that there are transportation problems within the community. These issues range from concerns about speed and safety, to worries about how to pay for the maintenance and on-going improvements of the transportation network (system) in Big Sky.

During the meetings, it was noted that Big Sky is a unique community. It is an unincorporated area that covers two counties (Gallatin and Madison). Participants discussed that the main roads used to access Big Sky (US 191 and MT 64) are the responsibility of the Montana Department of Transportation (MDT), and the remainder of the roads are funded (maintained) through Home Owners Associations and/or Special Improvement Districts (or Road Improvement Districts).

While this report documents numerous specific issues, in general the concerns are related to overall level of traffic within Big Sky, and the impact that increasing traffic has on safety. New access points (intersections) have been added along MT 64 without corresponding turning lanes, and there is a concern that more crashes will occur in these locations. One resident at the meeting bluntly asked, “Does someone have to die before we take action to address the problems?”

Given the critical issues that have been identified, combined with the level of community concern, there is clearly local interest in addressing these issues and improving transportation in the Big Sky area. To address the issues, two specific recommendations are proposed:

- An immediate speed and safety study; and
- A full transportation study of the Big Sky area.

One of the most immediate solutions that could be implemented would be to reduce the speed through the Town Center and Meadow Village areas. The current speeds in these areas vary between 45 mph and 50 mph. Given that this section of MT 64 has a high number of intersections, it seems prudent to lower the speed through this area. This is especially true given the fact that there are no turn lanes on MT 64 at these intersections (such as at the Hospital, Huntley Lane, and Ace Hardware). A Speed and Safety Study could be implemented fairly quickly, and it is relatively easy to change speed limit signs.

During the community meetings, an individual reported writing to the Gallatin County Commissioners to ask that the Board submit a speed study request to MDT. The Commissioners voted 2-1 against requesting the study. With the information noted herein, it is anticipated that

the Commissioners will recognize the need for a speed and safety study, and will reconsider submitting a request to MDT to implement such a study.

Given the growth in the area, it is also important to implement a full transportation study that will examine the build-out of the community, and how that will impact the transportation system. For example, it may be recommended that in five, ten or fifteen years, certain intersections should be signalized, or that turning lanes be installed on MT 64 at certain intersections. A full transportation study will likely take a year or so to complete, and will likely recommend many projects/solutions. Given the nature of the community, it is likely that the study will need to be a joint effort between Gallatin and Madison Counties along with MDT. It is likely that each of these partners will have to provide some funding for the study, although the process of hiring a consultant to complete the study would be managed by MDT.

If projects/solutions are identified and recommended for implementation (specifically those on MT 64 or US 191), they would need to be added to the Statewide Transportation Improvement Plan (STIP). This document highlights all of the projects to be implemented on roads controlled by MDT. The STIP has a five-year project timeframe, and is updated on an annual basis. The STIP is available online at <http://www.mdt.mt.gov/pubinvolve/stip.shtml>

The findings and recommendations of this report can be used by the Chamber of Commerce and other groups, agencies and organizations within Big Sky to plan and implement actions to address critical transportation issues within Big Sky. Two proposed immediate actions are: 1) To request that Gallatin and/or Madison Counties submit a request to MDT for a speed and safety study (and that study be conducted); and 2) To conduct a full (long range) transportation plan in the Big Sky community to highlight current and future transportation issues, and to develop and plan solutions to address those issues.

Appendix A: Speed Zone Information

This section provides information on the various speed zones (speed limits) along the major roadways in Big Sky (primarily US 191 and MT 64).

When coming from the north, the speed limit on US 191 is posted at 60 mph, until just about 2/10th of a mile from the US 191/MT 64 Junction (RP 47.9). At RP 48.1 the posted speed decreases from 60 mph to 55 mph. The posted speed of 55 mph remains for approximately 0.7 miles, until it returns to 60 mph at RP 47.4 (intersection of US 191 and Frenchman Road). Figure 12 highlights this section of US 191.



Figure 12: Speed Zones Along US 191

The only other location within Big Sky where the speed limit along US 191 changes is the “School Zone” where the speed limit is 45 mph when the zone is active (when the lights are flashing). Figure 13 indicates the area of this speed zone.

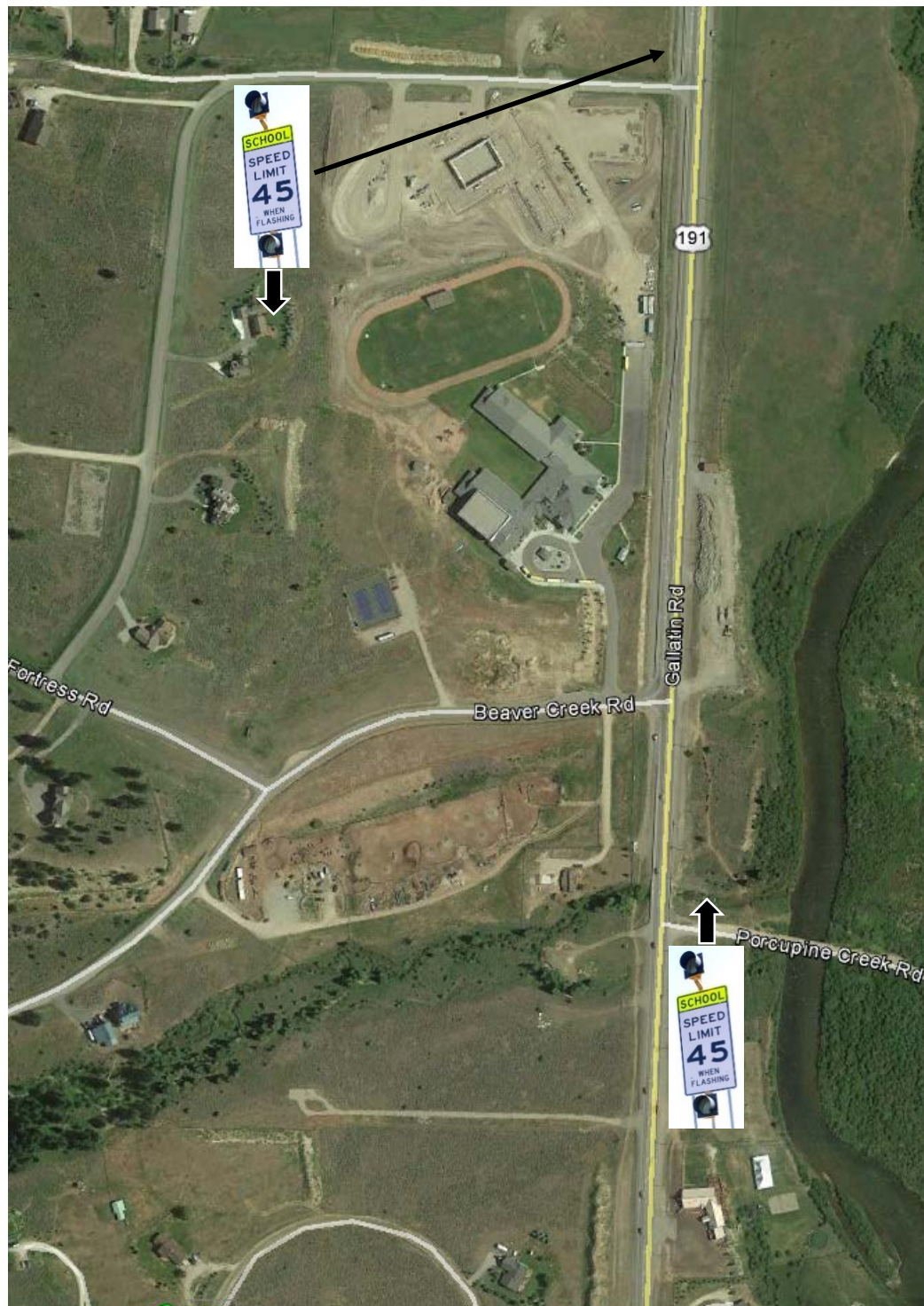


Figure 13: School Speed Zone on US 191

When coming from the south, the reduced speed limit is in effect for approximately 2/10th of a mile before the turn into Ophir School (Beaver Creek Road). However, with the construction of the new Elementary School (the construction visible in the Figure 13 photo), when approaching from the north, the school speed zone starts right at the turn to the new facility.

When turning from US 191 onto MT 64, the posted speed limit starts at 35 mph, and increases to 40 and 50 mph, before dropping back to 45 mph (see Figures 14 & 15).



Figure 14: Speed Zones on MT 64



Figure 15: Speed Zones on MT 64 (Town Center Area)

The 45 mph speed limit is in effect until after the intersection of MT 64 and Big Sky Resort Road, where the speed limit drops to 35 mph at the intersection of MT 64 and Sitting Bull Road (Figure 16).

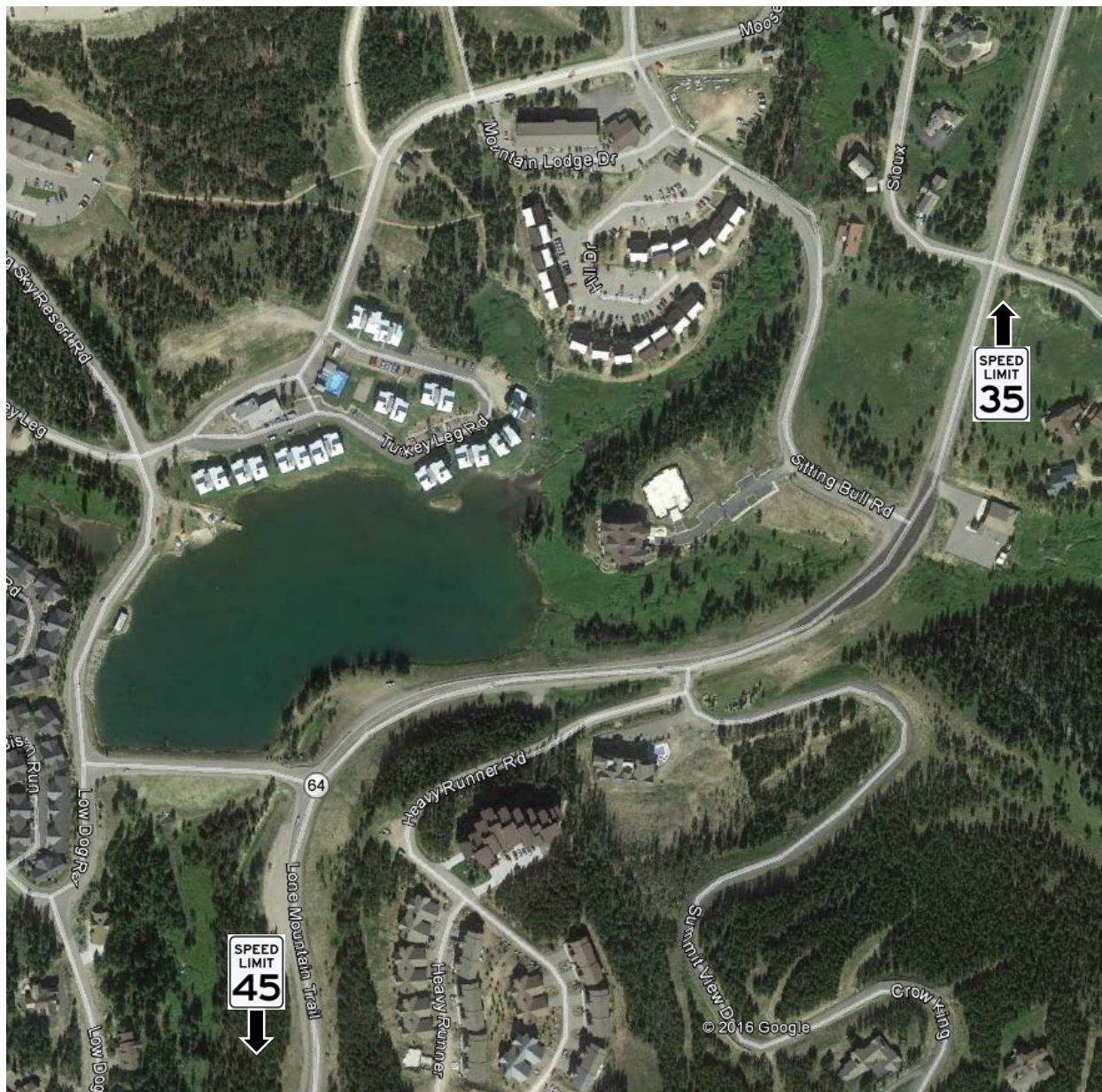


Figure 16: Speed Zones on MT 64 (Big Sky Resort Area)

When driving down from Moonlight Basin, the speed limit on MT 64 is 35 mph until just after the intersection with Big Sky Resort Road.

Appendix B: Minimum Speed Regulations

As noted in this document, several residents at the Big Sky Community Transportation meetings mentioned that there is no signage to indicate when people should use the turnouts on US 191. Montana Code Annotated 61-8-311 Minimum Speed Regulations note when someone should use a turnout. In general, these regulations state that turnouts should be used when a slow moving vehicle has four or more vehicles behind it.

61-8-311. Minimum speed regulations. (1) A person may not drive a motor vehicle at a speed slow enough to impede or block the normal and reasonable movement of traffic except when reduced speed is necessary for safe operation or in compliance with law.

(2) On a two-lane highway where passing is unsafe because of oncoming traffic or other conditions, the operator of a slow-moving vehicle behind which four or more vehicles are formed in line shall turn off the roadway at the nearest area where a sufficient and safe turnout exists in order to permit the vehicles following it to proceed. If the shoulder of the highway to the right of the slow-moving vehicle is wide enough and is in a condition allowing safe travel, the operator of the slow-moving vehicle may drive onto the shoulder and proceed at a safe speed until passed. As used in this section, a slow-moving vehicle is one that is proceeding at a rate of speed less than the normal flow of traffic at the particular time and place. The department of transportation is authorized to designate and construct turnouts and to erect official traffic control devices at appropriate places advising motorists of this statute.

(3) If the department of transportation or local authorities within their respective jurisdictions determine on the basis of an engineering and traffic investigation that slow speeds on any part of a highway impede the normal and reasonable movement of traffic, the commission or the local authority may set a minimum speed limit below which a person may not operate a vehicle except when necessary for safe operation or in compliance with law.

History: En. Sec. 44, Ch. 263, L. 1955; amd. Sec. 1, Ch. 387, L. 1973; amd. Sec. 58, Ch. 316, L. 1974; R.C.M. 1947, 32-2147; amd. Sec. 1, Ch. 15, L. 1983; amd. Sec. 3, Ch. 512, L. 1991; amd. Sec. 3, Ch. 352, L. 2003.