## US Highway 16

CORRIDOR STUDY

## Public Involvement Meetings \#1 Summary, July 23, 2019

Pennington County, South Dakota

September 9, 2019

U.S. Department of Transportalion

Federal Highway Administration

Metropolitan Planning Organization

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### 1.0 Public and Stakeholder Meetings Overview

## Tuesday, July 23, 2019

Black Hills Energy, Event Center
Rapid City, SD
US16/US16B/CATRON BOULEVARD INTERSECTION: 10 A.M.
US16/Neck Yoke Road intersection: 1:00 p.m.
US16 CORRIDOR sOUth of Neck Yoke Road: 3:00 p.m.
Public Meeting: 5:30 P.M.- 7 P.M.

Study Website: www.US16corridor.com

### 1.1 Overarching Themes to Transportation Need Comments and Discussion

## Safety

> Intersection conflicts
> Roadway departure
> Vehicle-animal conflicts
> Winter Weather
> Tourist traffic
Traffic operations at US16/US16B/Catron Boulevard
Speed
Turn lanes (left and right-turn lanes)
Median width (too wide or too narrow)
Intersection traffic control, particularly signalization of select intersections from Neck Yoke Road northward

Large vehicle concerns: trucks, RVs, trucks with trailers
Future US16 cross-section (urban or rural) north of Moon Meadows
Future and existing development impacts
Local network connectivity, and connections to US16
Service roads/frontage roads
Bicycle and pedestrian facilities in the urban and developing areas (north of Moon Meadows)
Motorist information: cameras, advance warning (intersections, signals, weather, etc.), website, and message boards

### 2.0 Written Comments

Written comments provided to the study team through the following methods:

- Comment card (at meeting or following meeting)
- Email
- Website

Method: comment card
Comments:
Landscaping as Part of Plan? espechuly it we look at Lower speeds wyluy wound be goon FOR Commerce, Business, TRavellorer it Possiblirg of Becomovg A scenic byway cortices we ARE COWSIDORWg (Scenic RC.)

Method: comment card
Comments:


Method: comment card
Comments:

- Please include bicycle safety in all study ares.

SD is wAAl behind the curve on this.

- Parting at Stratobowl Rim trailhead. Parking aron is very small and cars over flow onto Hwy 16 shoulder. Very danger aus.
- Multiple signs - "Keep Risht-Let others Pass" B.C. Carreda has some of the best examples of these.

Method: comment card


## Method: comment card

Comments:

- Wildlife corridor, mitigationacrashez
- Bryyle a Pedestrian use - Commuting, tourism, Recreation


Please return by August 6, 2019.

- keep it

Comments can also be e-mailed to: jonathan.wiegand@hdrinc.com
Or visit the website www.us16corridor.com
Beaction \&
natural


Method: comment card


Method: comment card


Method: comment card
Comments:


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Comments:


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Comments:
Win Developonents on Aw 16, it


Method: comment card
Comments:

$\qquad$ of billboards going up Tho deTracts from the
beauTy of The Black rills ThaT visiters come here To see. Fid like resTrictions on billboards to be

Method: comment card
Comments:
$\qquad$
Shan this Corridor dome:
life Safety should be the primary goal!

Method: comment card
Comments:

1. Need to have over ass of Catroou
2. Close 2 Lett turns Near Neck luke what hone wo twvNlaves, There are 2 then turns

Method: comment card
Comments:
The right hand turn lanes to turn on to welling ton DF. need to be culled. They should have been added with the last project and traffic has only gotten worse since then

Method: comment card
Comments:


## Method: comment card

Comments:

* At the open house DOT seems behind and re-active
rather than proactive. As the corridor gets busier, frontage Roads Dol bite/wackiog trails need to be located along Mt. Rushmore Road from the to f of the hill to Moon Meadows.
* Dot needs to weigh in on future development proposals such as the proposed Apartment Complex Across from Enchanted Hills. Residents
$\qquad$
$\qquad$
Phone: $\qquad$ E-mail: $\qquad$
Please return by August 6, 2019.
Comments can also be e-mailed to: jonathan.wiegand@hdrinc.com Or visit the website www.usl6corridor.com
and developers need to know current in frost rulture Cant or Can sap
support additional traffic. Infrastructure heeds to be part of develop
needs to be Part of development, follow


## Method: comment card

Comments:

$$
\begin{aligned}
& \text { We have lived in this anew for } \\
& \text { Enchantment } R d \text { is our mAin -- Entionce }
\end{aligned}
$$

Method: comment card

## Comments:

- Cation B Lid. dPt. Rushmore Pd find devin indue lu Naos, 2019 meeting

STOve Gramme needs the city to commit to a higher low speed intersection.

- Who in the city of Rapid City needsto do this?
- North of Moon Meadows on MIIT Pushmod Red needs to be low spear far a35yir
- Keep Addison Ave access open - and put ina light. Tor sufpand pion.
Adrauate access.

Method: comment card
Comments:


Wo need access East on to Cation from
Dankristy Ln. Traffic Light there and on
Enchantment going to Hwy 16. Also they Left out
A turn Lane for exiting Catron Blvd on to Dankristy
Lane. Al son need a Right Turn Lane off Hiv 16
to Enchantment.

Method: comment card

- rearace/serviuroado would be highly desirable along the east side of they 16 between Patron: top of hill by Zion
- continuous flaw intersection to slaw traffic
- put in turn tiny s to exit off 16 onto other roadways lex:



## Method: email (8/1/19)

1 - Recommend for the Rte-16 and Neck Yoke Rd. intersection:

- Seasonal/temporary traffic light system. Reason: Well documented traffic issues.
- Webcams compatible with the SafeTravel USA website. Reason: This intersection is also subject to flash flooding from nearby Spring Creek. I've seen it underwater twice and especially dread the prospect of encountering high water at night.

2 - Recommend for Bear Country Exit intersection:

- Seasonal/temporary traffic light system. Reason: Frequent dangerous encounters during tourist season, as Bear Country visitors mis-judge the traffic, roadways and narrow median when turning across traffic leaving the park. Not much of a factor off-season. DO NOT give drivers any reason to stop in the road on this hill, under bad Winter WX conditions!
- Webcams compatible with the SafeTravel USA website. Reason: This portion of the long steep grade is especially critical when the road is snowy/icy. I will stay home if it looks bad and do not like to discover this scenario by driving into it.

3 - Recommend for northbound left-side entry to divided Rte-16 from Rockerville:

- Elevate the traffic entry roadway and clear vegetation to improve visibility of oncoming Rte16 traffic. A stop sign may, or may not help here, too.

4 - Please examine weather-related factors \& stats in the accident rates on your charts. The steep grades in both directions from the Rte-16 and Neck-Yoke Rd are especially prone to severe winter weather icing and effects that are not evident at the intersection itself. Both grades require some sort of aggressive, responsive and/or built-in icing mitigation measures. Again, do not force drivers to stop for any reason on these grades during off-season bad weather.

## Method: email (7/24/19)

There needs to be a traffic light immediately on Neck Yoke and Hwy 16

## Method: email (7/22/19)

I do have concerns about the traffic on Hwy 16 and on Catron as I live in Enchanted Hills. We need a turn off on both if those streets into the development before someone gets killed. I also think it's a bad idea to build a new apartment complex on 16 right across from Enchanted Hills. They'll use Enchantment Dr to go to Walmart.

## Method: email (7/24/19)

Thanks for receiving comments from the public in regards to the US Highway 16 Corridor Study. I am a resident of Enchanted hills (Enchantment Rd.), and would love a turning lane going into our subdivision off of Highway 16 when driving north.
I've also heard that a 350 unit apartment building will be going in across from us so it might be worthwhile to look into putting a stoplight at our intersection.

## Method: email (8/5/19)

Recently I saw that overhead illumination was installed near Reptile Gardens, a very much needed improvement for obvious reasons. Regarding Busted Five Ct and Ln, access to Busted Five from Highway 16 and access to Highway 16 from Busted Five is very bad. There are three major entities that have access from the Busted Five intersection:

1. Old MacDonald's Farm, a busy tourist destination during the summer,
2. Rushmore Shadows RV park/campground, primarliy serves large motorhomes and campers.
3. The subdivision of private homes behind both Old MacDonald's Farm and Rushmore Shadows.

The current access from Busted Five from and to Highway 16 is mearly a crossover. There are NO turn lanes and there is NO overhead illumination. This situation causes difficulty entering and leaving Highway 16 and potentially can cause serious accidents. Many in our neighborhood believe upgrading the highway to have adequate turn lanes (turn bays existing Highway 16) and overhead illumination are desperately needed.

Large RVs often pulling an additional trailer or vehicle are attempting to enter and leave Busted Five to the RV park and also Old MacDonald's Farm. They have difficulty getting through the cross over to the Rapid City bound lanes, and also attempting to enter Busted Five from the highway, have to slow down to virtually a stop on the highway because there are no turn lanes.

Many children live in the subdivision and there is a school bus that enters Busted Five.
Old MacDonald's Farm has high traffic volume in and out of their parking lot. This traffic too tends to be slow in entering and leaving the highway not being familiar because they are primarily tourists.

I will actually drive on the narrow shoulder when exiting the highway (coming from Rapid City) to avoid causing traffic behind me to slam on brakes or worse, to crash into me as I make my exit turn.

At night there is NO illumination and very difficult to negotiate the intersection.
I urge you to consider these issues and build turn lanes and install overhead illumination at the Busted Five intersection. Some signage would be helpful too.

## Method: email (8/3/19)

We are just a few of the homeowners in the Busted Five community. Regrettably, we were unable to attend the public meeting on the US Highway 16 Corridor Study that took place on July 23, 2019. However, this study and the improvement projects that will result from it are very important to us. We would like to take this opportunity to express some of the concerns that we have in this study area, as all of us travel it multiple times every day and see firsthand the risks, the accidents that have occurred, and countless near or potential accidents that may have occurred. Our children are also on the buses during the school the year, and there are currently 4 new teenage drivers in our neighborhood with many other children growing up quickly.

Our biggest concern is at the intersection of US 16 and our community, Busted Five Court and Busted Five Lane. There are 45 homes and 2 businesses that use this intersection Rushmore Shadows Resort and Old MacDonald's Farm. Like many places along this corridor, both of these businesses are family-oriented, with vehicles carrying many children every day in and out of our community. However, there are several factors that combined make our intersection unique and especially dangerous.

- We have two businesses, where as many of the other intersections just serve one.
- We are one of only a few private home communities that are located off of this highway. We believe the only other intersection that has more than one business AND a community is at Stratosphere Lane (by Putz n Glo, Miner's Maze, gas station).
- Visitors don't just turn directly into the businesses - in order to get into Old MacDonald's Farm, they have to turn off of the highway and then immediately turn left into the parking lot. When there are others waiting to pull out onto the highway, this can block the entrance into the Farm, especially if it is a large RV that is waiting to pull out, and can (and has) caused entering traffic at times to back up into the highway.
- There are MANY RVs, many of which are quite long, that are entering and exiting daily from spring to fall. They require significant time to slow down and speed up. What is most concerning is when they are entering from or exiting to the northbound lanes. The median is not large enough to accommodate a lot of them. They often stick out into the main lanes of the highway as they are waiting to turn. In addition, if there are others waiting to turn left when approaching from the south, it causes them to have to stop in the main lane of the highway as well. This has happened to several of us more than once.
Due to these reasons, we would like to see two main changes to this intersection: the addition of turn lanes from all directions and a widened median. This would greatly improve the safety at this intersection. As you presented in the materials that are available on-line from the meeting, this has been a high-accident prone area. We have all seen accidents occur here, and many, many near accidents.

The other intersections that we have witnessed as a concern along this corridor are:

- At Wilderness Canyon - there are a lot of homes that are accessed at that intersection, and this is another area that we have seen many near accidents. Plus, the Rockerville Fire Station is right there as well.
- At the entrance to the Croell Pit - we anticipate that this area will become increasingly active with large trucks and equipment pulling in and out. This is potentially a dangerous area, since it is located on both a large curve and a large hill.
- At Moon Meadows - this is an intersection that is busy year-round, especially during the morning and afternoon commute times. This is probably the one that is at least as much or busier during the school year than the summer. This is most busy from local commuters, as many of the people that live all along and off of Sheridan Lake Road outside of town take this route into Rapid City and back home.
- We all recognize the dangers at the Neck Yolk Rd. intersection, as has already been identified. We believe that at the very least, there needs to be turning lanes at every entry and exit for both directions for each business that is in that area.

We thank you for providing us this opportunity to share our concerns and provide our comments and suggestions. We have recognized these risks for many years, but did not know who to take them to. We are very thankful that this study is taking place and that the safety of all the travelers along this corridor is being taken seriously. Thank you for taking into consideration the input from the local public, those of us who travel this corridor the most. We are hopeful for the results of this study. Please feel free to contact any of us with any questions or concerns. We would be happy to help.

## Method: mail (8/7/19)

 Oh the west than 3 yeats, there hello bun signvisiant changes dong the corilior? Ot t appends one US or core issus has been recognized, that bung the spue inuits for the caridor. We are anneng tho os aha blue it is seasonable So yous "ts y ever pan
 uppombions ave booming along the corridor and bill continue tees. Rapid City "city

 butikis so aspen move cast usfyective than any share term solutions. Businissoos,
 rather then later.
















Aero oxample of significant change) is what was originally called the Sports Wedioine) Conker at Bucssono Crossing. As it turns out, it is now called a hospital with numerous \& varied Specially Clinics, including the Rehabilitation hospital for Rapid Cay y and the region. All of this increases the brass sic to \& from the facility/ hospital. Recently, we've heard of the possibility of a school oping into the) northwest corner' (quadrant) ox the intersection property. Shat means quite v a let os coming es going near the intersockion. Certainly designating the corridor" as "low speed" does make sense e that would be preservable for the Addison crossroad area, as well - considering expansion of y loon Meadows appearing sooner rather than) later' in a 35 year plan.
questions:
Os it reasonable to naive only 1 or 1 '2 endrin levies sop all the existing businesses $\$$ residential housing at Wussalo Crossing? And that it is lecaceed on a Rapid City ByPass highway y io. rapidly moving trasssio designed to avoid normal city trasfyic slew? What is the difference in the number os accidents (\$soverizey) at the intersection since s) the approach changes of $2017 \$ 2018$ ?
Do yow have an esokimated \#t by patients / day foo the new hospital? And for the
 the new goo station?
City limits have eckpanded into the County. Low practical is a 60 mph speed limit withinthe Rapid City Cary limits?

She number of cross roads off diahway 16 between the "city" \& the US $16 / 45163$ intersection is 10 in less than 4 miles Sop churches, dental sSyices, retirement home, restawant, entertainment businessess, housing development, cemetery, \& fire protection. Clearly, Rapid City ness expanded to the south \& those businesses have been provided
 others such as the Orthopedic 4 Spine ( Conker) be denied that same access? We basically have 2 types of customers. those who are e repeat and for local, and those tourists who respond to a 35 foot tall "Rock Supp" sign. They see this from the intersection at the nowt \& simply two $\eta$ in; from the south, they see a sign alerting them to turn) Lose in $1 / 8$ mile for the Pock Shop. Access from bort directions is critical Sow our business \& we've never seen) and accident at his kern. (an you imagine) the damage to our business with access from only 1 direction? offs access is not easy, apparent, safe \& convenient, potential customers / tounsks cont wasted their time, energy, "resources on confusion. Alow can we present them with "back roads ' complex directions's \& expect them to take their time to sind us? Let's remain. Friendly to our tourists!
S.Alwyill changed to Mex. Rubtomore) Rd. What are the jurisdiction issues we should be wave of? What are the varying regulations \& financial ramifications involved? What laws apply \& who is responsible for Srinancial losses to our business? What are the skate laws that protect us as S.O. citizens \& business owners? Who is able to answer such questions?

Consider the valued os the properties along the corridor as in the billon of dollars. Lewrism is owe of the top econemies in S.D. Not only is this corridor booming and ripe Sop expansion of tourism, but also Sore expansion os housing, services \& hearth cared which serve the expanding Rapid City community. We need to concenbate) on easy, aye, \& convenient access to existing \& coming services for both residents of Rapid City \& $\psi$ for tourism trades. Keep Addison Awe open both directions \& ald a signal light now rather than later, please.

## Method: email (6/20/19)

At the meeting, most, if not all, of the stakeholders in attendance support slowing down traffic in this segment of Highway 16, the portion from Catron to Moon Meadows Road. Although two alternatives were carried forward from the 2016 study for the Catron intersection, it became apparent at yesterday's meeting that the Single Point Interchange option is not consistent with slowing down traffic and the Single Point Interchange is further not consistent with the development of both commercial and residential communities in this area.

The 2016 recommendation of displaced left-turn intersection (Continuous Flow Intersection) at Catron is more in line with the desire to slow traffic, support development of this area of Rapid City, and allow access points to the businesses and communities along this portion of Highway 16. Black Hills Orthopedic \& Spine Center, P.C., Orthopaedic Building Partnership, LLP and the physician owners request that additional assessment and concepts focus on the Continuous Flow Intersection and also focus on the development of other potential alternatives that support reducing speeds on this portion of US16.

Because the community and stakeholders are seeking to slow down traffic on this segment from Catron to Moon Meadows Road, Black Hills Orthopedic \& Spine Center and Orthopaedic Building Partnership requests a review and new analysis of the Catron Intersection, and Addison intersection, with US 16.

- First, this portion of US 16 from Catron to Moon Meadows Road should be reclassified away from a "other freeway or expressway" designation and should be reclassified as "Other Principal Arterials" and the speed limit should be reduced at least consistent with the segment of US 16 from Cathedral to Enchantment if not reduced further.
- Second, because the community and stakeholders are seeking to slow down traffic in this segment from Catron to Moon Meadows Road, the apparent planned need to completely close/remove the median between north and south bound traffic at the Addison intersection is not necessary.
- Rather, further assessment should focus on whether the median between southbound and northbound traffic on US 16 at Addison should remain given the intent to reduce traffic speeds and promote access to communities/developments along this portion of the corridor.
- Alternatively, assessment should focus on whether the left hand turn onto Addison for traffic traveling southbound on US 16 should remain while possibly disallowing left hand turns from Addison onto the southbound lane of US 16. This would (i) allow access to this portion of the community, (ii) promote the distribution of traffic to multiple, safe access points, and (iii) contribute to the long term development of the area. This further takes into consideration the safety of both pedestrians and vehicle/passengers utilizing this segment. As part of this assessment, consider extending the length of turning lanes for both southbound and northbound traffic at the Addison intersection.

Thank you again for listening to community and stakeholders concerns and comments regarding this segment of the US 16 corridor. This portion of US 16 has drastically changed over the past 5 years and the concepts for this segment of US 16 previously recommended should be flexible to this change.

## Method: website (7/18/19)

...are VERY concerned about the fact that there are no turning lanes from Hwy 16 at Tablerock. We start using our turn signals a good distance before the turn into the median crossover (going southbound) or turning right (going northbound). Inevitably, no matter the use of turn signals and brake lights, so many cars pretty much end up RIGHT on our tails as we are turning. Common sense says that they should slow down but it just doesn't seem to happen; they have their cruise control on at 60 mph and think we just need to get out of their way. In addition, there have been several close calls when some decide to change to the other lane without looking in order to avoid running into us. After years of having the turning lanes (to Tower frontage road) to use on Hwy 16 in front of the Calvary Baptist Church, we KNOW what a difference it makes when you don't have the lanes to decelerate in when turning.

As you are no doubt aware, the winter conditions in this area often bring extremely dense fog that can last for quite a while. The foggy conditions make turning off 16 even more nerve wracking and dangerous. Entering 16 is no picnic either in the fog.

The above described issues are pertinent to ANY turn off from Hwy. I know that the residents of the Enchanted Hill area have been dealing with this for years. It's ridiculously dangerous.

PLEASE incorporate turning lanes into the corridor plan and the SOONER THE BETTER before someone is seriously injured or killed. The traffic count isn't going down, it is going up.

## Method: website (8/3/19)

In my opinion the biggest problem facing traffic safety onUS16 is that the SDDOT cannot decide whether this corridor is to be a highway (the principal objective being for the safe and efficient movement of traffic with access to adjacent properties as a secondary objective) or a collector/distributor road (principally for access to adjacent properties with a secondary objective being slower movement of traffic). The existing geometrics of the roadway (horizontal and vertical) are not conducive to the addition of signalized intersections. The median is not wide enough to allow for large vehicle storage (gravel trucks, travel trailers motor homes) trying to turn across lanes of high-speed traffic. If local access is the desired objective, then a frontage road system should be considered and required as a part of development of adjacent properties. South of Moon Meadows, pick one or two good locations where signalization or grade separation can be accomplished and require local properties to access at those locations. Where there is direct access, widen medians, increase the radius for higher speed exit turns and consider deceleration lanes.

## Method: website (8/5/19)

In the short three months that we have commuted to and from both office and home within the area we have observed that the current 60 mph speed limit along the stretch from Addision Ave to Promise Road is really freaky fast. Turning across US16 is an experience where you almost feel like you are back in drivers ed going oh crap now what! We recently had one of our co-workers get into an accident crossing 16 at Promise Road. I notice the proposed plans for US16 seem to address the future needs but I'm not seeing where there is any thoughts of managing the traffic flow until there comes a time for changing the intersection. Slowing the current traffic down now would help create a safer environment that would also have a longer term effect helping the overall situation through future construction and management of traffic after the improvements. Regarding the alternatives that are being presented between the single point urban interchange vs. a continuous flow in my humble opinion the continuous flow loans itself to the least impact to the neighboring areas with a result that allows more movement of the traffic. I do have a concern about Healing Way and Addison Ave and the traffic increase that would occur with the single point urban interchange in that area. Making Addison Ave. into a cul-de-sac would not be favorable to those of us in the adjoining neighborhood.

## Method: website (8/5/19)

My wife and I have always been disappointed in the intersection with Catron Blvd. The design of the intersection at the bottom of a hill was a great disappointment. We have seen numerous vehicles and trucks have near misses at the stop light while traveling on Hwy 16 because they had difficulty stopping in time, especially with poor weather conditions, i.e., fog, snow, ice. We believe an intersection similar to the one at Catron Blvd and Hwy 79 would be a good solution if the Hwy 16 traffic didn't have to stop like Hwy 79 doesn't. At the Neck Yoke Road intersection, additional turn lanes and certainly acceleration lanes would be a huge improvement. Make better use of the existing frontage road on the east side. Certainly don't want a traffic signal at the bottom of that hill. We don't think pedestrian or bicycles lanes on the roadway should be encouraged. If a bike/walking path is desired, make it well away from vehicle traffic.

### 3.0 Public Meeting Notes

Tuesday, July 23, 2019
Black Hills Energy, Event Center
RapID CITY, SD
Public Meeting: 5:30 P.M. - 7 P.M.

The following lists notes from study team member discussions with public meeting attendees.
Recommendations stated by meeting attendees:

- Left-turn lane for NB US16 at the south intersection with Silver Mountain Road. Meeting attendee had to go to Rockerville and use the north intersection because he was afraid he was going to be rear ended at the south intersection.
- Improvements to both the Croell pit entrance and the Bear Country exit. One recommendation noted a service road be built for the area.
- Maintain access US16 access to Addison. Concern for increasing traffic along Healing Way through the residential area. Maintaining access to US16 via Addison Avenue would decrease traffic on Healing Way.
- Meeting attendee stated opposition to current and potential future U-turns on Catron/US16B.
- More advanced warning for WB traffic on US16B approaching US16 to head to Mt Rushmore. Meeting attendees stated that by the time out-of- town drivers on US16B see the sign for Mt Rushmore, they have a hard time getting left because of the amount of traffic. If they were notified a half mile ahead of time they could get in the left lane in plenty of time.
- Left turn lane for traffic turning in from the north (Enchantment Road/Tablerock Road area). Traffic bears down on them very fast with little time to slow down and get in the median. There is a new apartment complex built here that has increased the need for the turn lane.
- Bike/pedestrian accommodations needed for the entire corridor because of tourism. Discussed Michelson trail. Meeting attendee also noted concern for bicycle safety on US16.
- The FS trail access is full and needs more parking.


## Preference for Single Point Interchange (SPI) and Displaced Left Turn Intersection

 (DPI)/Continuous Flow Intersection (CFI) alternatives:- Preference stated for CFI option because meeting attendee believes it would slow traffic on US16/US16B.
- Preference stated for SPI option because meeting attendee believes CFI will be confusing to drivers and that people don't know how to drive the existing US16/US16B intersection.
- Recommendation for a new expressway/bypass for high speed traffic. US16 could be urbanized with lower speeds.
- Heavy fog was noted at the US16/US16B/Catron Boulevard intersection and should be considered in selecting the intersection/interchange alternative.
- Preference stated for SPI at US16/US16B intersection. Meeting attendee wanted to maintain high speeds on US16 and noted safety concerns with signalizing an intersection on a high speed roadway and fog.

Other comments or information stated by public meeting attendees:

- New cabins are planned along Pine Haven (Rockerville area), with access off of US16. Currently 30 homeowners in Pine Haven.
- When "unknown" road near Catron Boulevard was removed, it become much harder to pull out onto US16 at Moon Meadows than before road removed. Meeting attendee asked if there has to be a second access for all the apartments as Moon Meadows is the only access now.
- At Neck Yoke Road, it is tough to access because the turn lanes are short or there are none. The narrow median is restricting access to US16 and turning movements
- Wildlife is really important and meeting attendee would like to see collisions reduced.


### 4.0 Stakeholder Meeting Notes

Tuesday, July 23, 2019
Black Hills Energy, Event Center
Rapid City, SD
US16/US16B/CATRON BOULEVARD INTERSECTION: 10 A.M.
US16/NeCK Yoke Road intersection: 1:00 p.m.
US16 CORRIDOR sOUth of Neck Yoke Road: 3:00 P.M.

A fourth group of stakeholders was identified to possibly have an interest in multiple segments throughout the US16 corridor. These stakeholders were invited to attend any of the three US16 corridor stakeholder meetings.

The following notes summarize transportation need-related discussion and stakeholder comments/questions during each of the three stakeholder meetings. The notes are generally summarized as a comment and/or question. Subsequent discussion points are also noted to provide additional information and context. Study advisory team questions to the stakeholders are also noted.

### 4.1 US16/US16B/Catron Boulevard Intersection Stakeholder Meeting

## US16/US16B/Catron Boulevard Intersection

Overall, there was considerable discussion on speed through the corridor, with lower speeds generally favored by the stakeholders in this group. These discussions typically broadened out to an overarching consideration to what the US16 corridor looks like in the future and how that relates to the US16/US16B/Catron Boulevard intersection alternatives.
> High speed vs. low speed?
> Future facility: expressway or principal arterial?
> Future cross-section: more of an urban feel with raised median and curb and gutter or a rural feel with ditches and depressed grass median?
> Does the Single Point Interchange mean a high-speed expressway corridor and Displaced Left Turn mean a lower speed principal arterial?
> Focus on safety - stakeholders stated the need for safety many times, and that safety needs to dictate future improvements.
Q. Is there an example of displaced left turn in South Dakota?
> There is none currently in SD. The displaced left movement is similar to a DDI, which is going in at the I-90 and Lacrosse Street interchange.
Q. Is there a cost difference between the two alternatives?
> Yes, Displaced Left $\$ 12-15 \mathrm{mil}$ and Single Point Interchange is $\$ 30 \mathrm{mil}$ (2016 study costs).
Q. Which interchange can handle the highest capacity to deal with tourist peaks?
> Both alternatives can handle LOS adequately.
Q. Will there be any change in speed limit between Cathedral Drive and Moon Meadows if there is a signal at Moon Meadows?
> Nothing planned to reduce speed limits, but SDDOT will continue to evaluate as the area is urbanizing.
> This study will evaluate future US16 corridor cross-sections, which will include looking at the pros and cons of a more urban vs. rural corridor. This future cross-section will have play a role in a future speed recommendation.

Comment: maintaining access during and after construction is important for the commercial development along the frontage roads and the residential behind the commercial.

## Other US16 Intersections (Moon Meadows and north)

There were several comments regarding a need for US16 right and left-turn lanes and difficulties making left-turns out of the minor access approaches. Other questions were asked about access, potential for access restrictions, and future local network connectivity in the area.
Q. Will there be turn lanes north of Catron Blvd?
> Yes, left-turn lanes are planned at Promise Road and Enchantment Road intersections as part of an upcoming project (currently in design). There are additional locations, but the study team members in attendance didn't have the entire list of locations.

Comment: Concern regarding Fox Run intersection (Echo Drive), speed, and turn restrictions.
> The traffic pattern is changing here with urbanization. It is no longer entirely through traffic heading out of Rapid City. Type of trips are changing to more local trips.

Comment and Question: At Enchantment Road, 350-unit apartments are planned and the current intersection can't handle safety today. So how do you deal with more development without turning lane and acceleration lanes?
> The developers will need to prepare a traffic impact study to determine recommendations on what improvements will be needed to address increased traffic.

Comment: At Enchantment Road, when making a right hand turn there is no acceleration lane going to the north. You can't see the traffic and it is hard to get to $65 / 70 \mathrm{mph}$ and you can't ahead of the traffic.
Q. What will happen at Promise Road?
> Will continue to travel through signal like today.

Comment: The fire station needs their own entrance. With the housing in the area around the fire station there needs to be signal control because of the queuing.
> The intersection has not yet met traffic warrants; could consider a signal for access to fire station if there is an issue.
Q. With the Displaced Left turn Build Option, why do you have to close Addison?
> Closure is due to volumes and left traffic conflicts.

Comment: At section line road between Moon Meadows and Addison Avenue, there is a lot of development and you have to look out 35 years. You don't want to make a decision to close now and have to re-open in future with development.
> Will look at right in / right out or $3 / 4$ access vs. closing to best match planned future development.

Comment: By removing Addison Avenue access to US16, there is less local business access to businesses at Buffalo crossing. The only access becomes Catron Blvd which is a bypass with high-speed traffic. This changes the business access and the types of businesses.
> We will be looking at volumes now as partially developed and with future plan. Will also look at adjacent intersections (Moon Meadows and Healing way)
> The removal of access brings all traffic to a single point which can increase queuing, but decreases overall number of conflict points. Counter-point is that this moves/relocates conflicts to a different location. Safety will be part of the analysis.
> Will consider travel-related impacts with access closures, determining potential impacts from additional travel distance and travel time.

## General US16 Corridor Questions and Comments

Q. What do you do with extra trucks from Croell operations?
> Truck impacts will be reviewed.
Q. Is US16 a designated scenic byway?
$>$ No
Q. Why is US16 called Rushmore Road?
> It is called Rushmore Road within the city limits.
Q. Why aren't there service roads on both sides ofUS16? Will the service road be removed?
> The service road is the old US16.
> Service road access (during and after construction) will be evaluated.
Q. Will the service road be removed and who owns it?
> SDDOT currently owns and maintains, but would be open to a transfer.
> There are safety issues with a high concentration of intersections and high traffic volumes but it is difficult because you still have to accommodate existing access.
> The spacing between frontage road and US16 is 83 ft . Frontage road is in US16 ROW.
> Working with staff regarding growth issues such as frontage road and lessons learned.

Study team question: does the group see benefit to motorist information/ITS (both during and before a trip)?
> Fog alerts, motorcycle traffic/crash alerts.

Study team question: are there any locations with frequent or surprising issues?
> On Catron andUS16 if it's icy trucks or motorists can stop for the light.

## Bicycle/Pedestrian Questions and Comments

Comment: need bike/pedestrian or trail along corridor.
> Sidewalks will be incorporated into the alternatives.
> Currently, no multi-use trails; bikes are using the shoulders and that would continue.
> Any future bike routes would be part of city plan.

Comment: bicyclists are using the shoulders from Spring Creek to Rapid City and it is dangerous.

### 4.2 US16/Neck Yoke Road Intersection Stakeholder Meeting

## Neck Yoke Road Area

Neck Yoke Road area, through the Spring Creek valley, discussion focused on safety and operational issues. Intersection conflicts, turn lane design or absence of turn lanes, and large vehicles were common concerns noted by the stakeholders. The feasibility of potential concepts, such as access closures, auxiliary lanes, various types of intersections, and potential right-of-way impacts were also discussed.

Comments: Reptile Gardens initial safety discussion summary.
> The lighting and radar on the hills have worked to reduce speed.
> Reptile Gardens hears lots of honking for cars waiting to pull out.

- Impatient drivers and lack of adequate gaps.
> Tell staff to use farthest north or middle access, not to use the Neck Yoke Road intersection.
> The speed limit drops to 60 right before Reptile Gardens. They would like even lower speed limit even it's only for a short distance and only in the summer.
> The fatality and injuries in this section are more related to speed of cars and impatience, i.e. making poor judgments in pulling out.
> Residents have asked for no left or right turn and go across to service road at farthest south (\#3 Reptile Gardens entrance).
> The traffic signal timing at US16/US16B/Catron Blvd intersection helps provide gaps in traffic for vehicles for traffic turning onto US16.

Study team question: how many access points would Reptile Gardens be ok with?
> Prefer the eastern (northern) two accesses to remain.
> OK with the approaches being regarded to increase visibility.
> Reptile Gardens traffic:

- $65 \%$ from Rapid City area (east)
- 35\% from Keystone area (west)
> Would like to see auxiliary lanes at these intersections, both turn/decal and acceleration lanes.
- Indicated they are open to participating in construction of turn lanes.

Comments regarding RVs and other larger vehicles have difficulty making left-turns from the minor access approaches.
> Back end of longer vehicles stick out into passing lanes of US16.
> Acceptable gaps for longer, slower accelerating vehicles are sometimes limited.
> Cars will often seek out the access location without a large vehicle trying to turn.
> Stakeholder recommendations include:

- Stripe an angled turn lane/acceleration lane so longer vehicles can fit completely in the median and not extend out into a through lane.
- Reduce/consolidate number of intersections.
- Right-in right-out with U-turns (reduced conflict intersections)
- Stakeholders would like to see this concept developed.
- Study team showed two reduced conflict intersection examples along US169 in St. Peter, MN.

Comment: South Dakota Highway Patrol noted line of sight issues for Neck Yoke Roadapproach vehicles and eastbound US16 traffic, particularly motorcycles. The most serious crashes they see are at the $3^{\text {rd }}$ (south) access.
> Suggested that sight lines could be improved if the intersection is built up.

Comment: Heading northbound, lack of right-turn lane(s) are a concern.
> Tight right-turn from EB US16 to Neck Yoke Road.
> The US16 bridge southwest of Neck Yoke Road is a constraint for turn lanes.
> Discussion regarding various routes of Neck Yoke Road and existing structures in the area. There is potential developable land in the area to be coordinated.
> Discussed potential concepts to be developed through this study.

Comments regarding potential right-turn lane impacts (eastbound and westbound directions):
> Right turn lanes would widen the cross section and thus potentially impact adjacent property.
> Study team talked about Brookings US14-US14 Bypass corridor example where minor approach motorists have difficulties seeing around oncoming right-turn lane traffic. This has led to serious crashes at the intersection.
> In this instance with turn lanes you would have to offset the lanes to increase sight distance. The width needed to make this accommodation will be determined.

Comments and Questions: What are the pros/cons of a signal at US16/Neck Yoke Road intersection?
> US16 speeds are a safety concern, for both current conditions and signalizing the intersection.
> Intersection does not meet signal warrants. To be determined if/when it is anticipated to meet warrants in the future; will review as part of this study.
> Grades are an issue in the area and a concern if intersection is signalized.

- Difficulties slowing down when coming down the hill.
- Difficulties accelerating when going up the other side.
- Creates weaving concerns with cars and motorcycles trying to pass slow trucks.
- Concern with icy conditions.


## Study team question: are pedestrian crossings an issue?

> Yes, crossings are limited and most run across US16.

## Comments regarding Neck Yoke Road area speeds.

> Support for reduced speeds.

- Buses go down the hill fast, and sometime on purpose, to help with the upgrade on the other side.
> Vehicles seem to be slowing down through the Neck Yoke Road area.
> SDDOT comments on speed limits through the area.
- Decreasing speed on a roadway designed for higher speeds, it becomes an enforcement issue. Motorists still feel comfortable driving at that higher speed.
- Frequently changing speed limits can be an issue if motorists are not paying attention to speed limits. Don't want to create a speed trap.

Study team question: Should US16 be a high speed corridor or urban arterial?
> SD79 extending under US16 Bypass was used as an example. It was reconstructed with a bit more of an 'urban' feel with the raised median, but still has a rural cross-section to the outside with shoulders and road side ditches.
> One recommendation noted lowering to 50 mph from Constitution Hall northward into Rapid City. 55 mph was also supported.
> Another comment noted that this area is developing and the lower speed could be extended southward through the Neck Yoke Road intersection.
$>$ SDDOT noted that if the roadway looks like an expressway and people feel comfortable driving at a higher speed, they will drive at the higher speed unless there are changes to the crosssection.
> SDDOT noted that the US16 roadway will need to be reconstructed in the next 30 years, so that would be the time for potentially raising the median, adding curb and gutter, etc. and slowing traffic.

## US16/Moon Meadows Intersection

## Q. Will there be a traffic signal at Moon Meadows?

> Right now the intersection doesn't meet warrants but will as development continues. The infrastructure is in place.
> The intersection has been evaluated annually, multiple times the last year or two.
> Discussed traffic signal warrants in the Manual on Uniform Traffic Control Devices (MUTCD). There are currently nine warrants that look at such things as vehicle volumes, pedestrians, and roadway geometrics/features.
Q. Other US16/Moon Meadows intersection discussion:
> Blind spot when approaching Moon Meadows.
> Why can't you put digress lanes at Neck Yoke?

- Cost is a factor.
- Turn lane warrants are also a consideration.
> Discussion regarding another location where a land owner constructed a right turn lane. In this case, the owner chose to put the lanes in at own cost/discretion. The lane wasn't required per warrants.
Q. What is the expected growth at Moon Meadows and Neck Yoke Neighborhood 30-40 years?
> After the meeting, stakeholder noted planned development around the Heart Ranch area.
> The study team is incorporating city future land use plans, traffic impact studies, and other sources of future development information (i.e. school district).


## General US16 Corridor Comments/Questions - Safety

Question and Comments: Can you put up median barrier to separate EB/WB because between Bear County and Reptile Gardens? The median is narrow and vehicles are crossing the median into oncoming traffic.
> The barrier will be investigated. Five-year crash history doesn't show any head-on crashes from vehicles crossing the median, however, it shows vehicles are crossing the median.
> Vehicles crossing the median are ending up in the far ditch or back in the median, without hitting any vehicles in the opposite direction.
> If a barrier is installed, number of crashes would be expected to increase due to vehicles hitting the barrier that would have otherwise stopped in the median.
> However, the crashes wouldn't be as severe as severe.
> The narrow, depressed, paved median seems counter to most design criteria.
> SDDOT indicated volumes are there for further evaluation.
> A current I-90 study west of Rapid City is developing median barrier warrant methodology.

Comment: South Dakota Highway Patrol noted that methods of creating awareness are effective methods of decreasing speeds.
Q. South Dakota Highway Patrol asked stakeholder group, is there enough law enforcement along US16?
> General consensus was yes, there has been a noticeable increase in enforcement presence along the corridor.

Comment: Several comments regarding the benefits of recently installed intersection lighting at Neck Yoke Road.

Comment: Concern with the speed of traffic and motorcycles. The fatalities that have occurred at Neck Yoke were motorcycles.

## General US16 Corridor Comments/Questions - ITS and Traffic

Study team question: about ITS and reliability or other concerns such as travel time, cameras, etc.
> Advance warning for speed changes and traffic signals.
> Motorist information, particularly for weather.

Comment: Traffic concerns are really only a three month issue at Neck Yoke between June and August, but notes study team needs to consider these concerns during planning.
Q. Are you looking at mining trucks?
> Yes, will be considering. The truck traffic doesn't affect the peak hour volumes but can affect whether acceleration or deceleration lanes are needed and when to consider a turn lane.

Comment and Questions regarding the future signal at US16B and Healing Way. This area has been a trouble spot. Will the signal back traffic back onto US16?
> The signals will be interconnected and spacing between the Healing Way and signal spacing is adequate.
> Northbound Healing will have dual left-turns, which reduces overall green time of the minor street approaches. Provides more green light time for US16B traffic.
Q. Will Les Hollers road be extended?
> This study accounts for extension of Les Hollers northward and southwestward (to Sheridan Lake Road).

## US16 Vehicle-Animal Conflicts

## Comments regarding wildlife:

> High propensity for vehicle-animal crashes in the Neck Yoke Road area, particularly along Spring Creek.
> Deer are crossing under US16 Spring Creek bridges. Possibly crossing under Neck Yoke Road when water is low.
> Deer are also crossing through area parking lots.

### 4.3 US16 Corridor South of Neck Yoke Road Stakeholder Meeting

## US16 Corridor Comments: Neck Yoke Road to Busted Five Lane

## Comments:

> Trucks with double trailers don't stop but pull out without waiting for vehicles. It doesn't give enough reaction time for other vehicles and right now there are a lot of near misses. The trucks also block both lanes (all four lanes to turn in).
> Are there adequate gaps in summer traffic? The WB dual lefts at US16B/Catron Boulevard, the gaps in traffic are less with two lanes of vehicles approaching this area.
> At Bear Country:

- Crossing cars are not pulling all the way into the median and stick out into WB passing lanes.
- Median is too narrow for (crew cab pick-up doesn't fit); the Fire Department sees a lot of accidents here.
- During cub fest, traffic backs up around the corner (also on weekends) on US16. Cars try to pull off $1 / 4-1 / 2$ mile past Croell pit.
> People don't realize there are ditches in this location and so driving through them.
> During winter/bad roads drivers are not paying attention; driving too fast is causing the accidents. Sometimes the accidents are caused by changing road conditions, particularly ice.
> Between the gas station and fire station, the combination of cold winds and warm roadway surface leads to icy conditions.
> The new signs indicating speed limit at Neck Yoke is helping to slow vehicles.
> Study team noted there will be a high friction treatment at horizontal curve (similar to West of 16 Wye).
> On the inside lane of truck traffic loses traction on curve so pull off and block lane. They are using it as a staging point to get up the hill. This condition has increases over the last few years.
> Request for Bear County turn lanes to be extended.


## US16 Corridor Comments: Strato Rim - Busted Five Area

## Comments:

> High US16 speeds and motorists trying to make a left-turn towards Rapid City is resulting in angle crashes.
> Alcohol is also contributing to a number of crashes in this area.
> The one fatality in this area was a driving pulling out on near side and couldn't see around the truck; angle crash.
> Don't have a lot of RVs causing crashes; small cars and impatient drivers tend to be causing crashes.
> Near Rushmore Shadow, there dense fog which seems to be increasing in frequency.
> RVs with cars don't have enough space in median for left-turn towards Rapid City.
> Rushmore Shadows is seeing greater RV demand
> Daylight crashes are common in this area.

## US16 Corridor Comments: Neck Yoke Road Area

## Questions and Comments:

> Why are there no right turn lanes at Neck Yoke Road?
> People making turns from opposing directions competing to use the median for turning.
> RVs create challenging situations.
> At Happy Holidays, people don't know where to turn in/out; there are too many intersections. Would prefer the north intersection be removed.
> At Neck Yoke Road intersection, it can be confusing who is turning when/where with the high intersection demand.
> Recommendation for not signalizing the intersection.

- In Rockerville area, $72 \%$ of the crashes are vehicle-animal.
> There is more residential plans north and south of Spring Creek. There is about 150 units now with another 200 within $5-10$ years expected.
> It can take 8-10 minutes to make a left hand turn at Neck Yoke to get to Rushmore Shadows. The property manager for Rushmore is physically located at Heart Ranch properties and goes back and forth several times a day.

Study team presented an example of reduced conflict intersections along US169 in St. Peter, MN. Noted that this type of intersection would add approximately $1 / 2$ mile or 1 min of travel time to make U-turn.
> Rockerville Fire Department likes this idea for Neck Yoke area. Felt it might helpful at Wilderness but there would still be impatient locals.

## US16 Corridor Comments: Rockerville Area

## Comments:

> Impatient traffic and the speed of the traffic are the problems. This is really an issue at Sturgis Rally.
> There needs to be more sight distance/and open up the area both in and out of Rockerville.
> The Rockerville Road and US16 E intersection.

- Would expect more crashes at this intersection.
- Vehicles need to angle at intersection to make safe turns.
- Speed differentials/high speeds of EB US16 can create unexpected conflicts.

Study team question: are there any issues with left-hand entrances or exits?
> The issue is not on ramp out (but need more visibility on ramp).

Study team question: thoughts about combining EB and WB lanes on one side of Rockerville (north or south)? Preference?
> Stakeholders saw benefit.
> New development (rental cabins) is proposed around Pine Haven. Recently, duplexes have been constructed, but are mostly used on weekends.
> Will need to pay attend to closed roads. People continue to travel those routes, such as old Pine Haven Drive between US16 W and Main Street.
> Would be ok with either side of Rockerville.

- South side doesn't have the Pine Haven intersection concerns.
- North side doesn't have the drop off into Rockerville.


## US16 Corridor: Keystone Wye to Rockerville Area

Manager from Hillside Cabins commented about several items specific to this section of US16.
> Concern about noise: truck jake brakes and rumble strips.
> The median is too narrow and the median and road look the same.

- Longer trucks can't wait in median.
- Similar situation at Cosmos Road intersection.
- Creates a conflict, particularly for larger, slower vehicles that can't turn into the (often) occupied passing lane to go around turning vehicles.
> Signage is either lacking or difficult to see.
> Speeds are high.
> Noted motorcycles have tipped out in front of cabins.
> Drainage issues with highway runoff heading towards cabins.
> The cabins have been in place since 1931.
$>$ Noted that they have had to pull deer off the road in this location; doubts they are getting reported because the cars are just leaving.


## US16 Corridor: General Items

Study team question: ITS - what information and where?
> More information would be good but not near Reptile Gardens. There are already too many signs and clutter.
$>$ Information about ice and weather at the top of the hill.
> Signs about reliability: Neck Yoke Road area, slow traffic at Keystone Wye, and slow traffic at the US16/US16B/Catron Boulevard intersection.
Q. Why is the speed limit 65 and not 55 mph ?
$>$ All state highways have to be 65 unless there is a reason not to. The speed limit is set by the $85 \%$ of the motorists and their speed. We need to design the road to be the speed we want it to be.
Q. Can we up fence to decrease deer collisions?
> This will be investigated as part of the study.

### 5.0 Additional Outreach

Commuter and tourist informational surveys are being conducted during the months of August and September. Findings will be compiled and presented in a separate summary memo.

Public meeting media coverage: https://www.newscenter1.tv/dot-to-conduct-study-for-overhaul-of-highway-16/

Dustin Hamilton with HDR provided an introductory presentation to the Mt. Rushmore road group at their monthly meeting in August. Media coverage from this meeting:
https://rapidcityjournal.com/news/local/department-of-transportation-to-discuss-mount-rushmore-road-plans/article_6956c9bf-6442-5045-92d2-7eb1f26f4af4.html
https://www.newscenter1.tv/major-road-changes-proposed-from-mount-rushmore-road-to-keystone-wye/
https://www.kotatv.com/content/news/557706741.html

