



**Transportation Commission
Packet
April 26, 2018**

**IM 0292(50)63 PCN 1241
or
IM 0292(79)61 PCN 04VV**

LINCOLN COUNTY

Structure 42-065-130 over I-29 at 281st Street

Project Summary

At the July 27, 2017, meeting, the South Dakota Transportation Commission authorized the Department to proceed with the process to investigate removing the structure 42-065-130 located over I-29 at Mileage Reference Marker 63.34 (281st Street) between Exit 62 (US18/Canton Exit) and Exit 64 (SD44/Worthing Exit) in Lincoln County.

The Department investigated two options (replace and remove) in further detail and has developed cost estimates for each option. Removal of the structure is the least expensive option to the Department with an estimated cost of \$312,000. Replacing the structure has an estimated cost of \$2,009,000.

Given the low Average Daily Traffic using the structure (25) and the relatively close proximity of the adjacent crossroad structures over I-29 (approx. 1 mile South and 1 mile North), the results of the user cost analysis shows that it takes over 119 years for the increase in user costs to exceed the initial savings to the Department to remove versus replacing the bridge. This analysis did not include the reoccurring annual maintenance and next replacement of the structure should it be replaced, which would create an even greater difference.

The Sioux Falls Area Engineer discussed with the Lincoln County Highway Superintendent and met with Lynn Township officials on September 13th to notify them of the Department's preferred alternative to remove the structure. Neither entity expressed any concerns with the removal if the Department would furnish and install all signs needed to alert drivers of the roadway dead ends created by the removal.

A Public Meeting/Open House was held on November 16, 2017, at the Worthing Elementary School in Worthing, SD. Thirty-nine (39) non-SDDOT employees attended, including all three District 16 legislators and Commissioner Vehle. The hearing was advertised in the November 2, 2017, and November 9, 2017, editions of the Sioux Valley News (Canton) and Lennox Independent newspapers and the landowners within a 1 ½ mile radius of the bridge were sent invite letters. A handout was made available at the meeting to provide information and generate questions. The handout and presentation made are available for download from the SDDOT webpage www.sddot.com/dot/publicmeetings/pubmeet_129-281St.aspx. An overview of the comments / questions received at the meeting and the submitted written comments are attached. An acknowledgement of receipt letter has been sent to those that provided written comments.

Public Meeting Summary

South Dakota Department of Transportation
Public Hearing / Open House
November 16, 2017
IM 0292(50)63 PCN 1241
IM 0292(79)61 PCN 04VV
LYNN TOWNSHIP, LINCOLN COUNTY
Structure 42-065-130 over I-29 at 281st Street

The following individuals represented the South Dakota Department of Transportation:

Travis Dressen – Sioux Falls Area Engineer
Stacy DuChene – Road Design Engineer
Steve Gramm – Planning Engineer
Steve Johnson – Chief Bridge Engineer
Steve Kerr – Structural Engineer

The Public Hearing/Open House was held on November 16, 2017, at the Worthing Elementary School in Worthing, SD. Thirty-nine (39) non-SDDOT employees attended, including all three District 16 legislators and Commissioner Vehle. The hearing was advertised in the November 2, 2017, and November 9, 2017, editions of the Sioux Valley News (Canton) and Lennox Independent newspapers and landowners within a 1 ½ mile radius of the bridge were sent invite letters. A handout was made available at the meeting to provide information and generate questions. A copy of the handout is available from the SDDOT Project Development Office. An overview of the comments / questions received at the meeting and the submitted written comments is attached.

Six written comment letters and one phone message were received by the end of the public comment period set at November 30, 2017. Copies of the written comment letters and a transcript of the phone message are available from the SDDOT Project Development Office. An acknowledgement of receipt letter has been sent.

Overview of Informal Comments / Questions Received at the Hearing/Open House

Generally, most in attendance were against removing the structure, but understood the economic feasibility to the Department and the State of South Dakota of removing the structure.

Some questioned the safety aspect of diverting slower moving farm equipment to cross the Interstate at an interchange versus an overpass? This was the dominant theme of the comments made and questions asked at the meeting. Most of those in attendance that were vocal during the meeting believe that removing the bridge will result in more severe crashes at the two adjacent interchanges if the overpass bridge is removed.

SDDOT Response: As the number of crashes within a segment is proportional to the amount of traffic volume within that segment, given the very low number of additional vehicles that would be detoured to cross the Interstate at either of the adjacent interchanges, the increase in crashes at the interchanges due to that increase in volume is anticipated to be minimal. The volume and classification counts taken at the bridge indicate that 89% of traffic volume now crossing at 281st Street is either a car or pickup that should be capable of travelling at the speed limit. Farm equipment regularly crosses I-29 at the interchanges today with little impact to the crash rate. A review of the previous five years of crash data shows that of the eight crashes that occurred along the crossroads at Exits 62 and Exit 64, none involved farm equipment.

When looking at the safety impact of removing the bridge, the safety benefit of removing the bridge pier, abutments, and the related guard rail and embankment from within the Interstate right-of-way also needs to be taken into consideration. Removing those obstacles out of the Interstate mainline's clear zone will reduce the severity of any run off the road crashes along I-29 near the location of the bridge. A review of the previous five years of crash data shows that the lone crash that occurred in the vicinity of the 281st Street overpass involved hitting the guardrail.

Given that the volumes of traffic travelling along I-29 are much greater than the volumes on both SD44 and US18 at the interchanges, the safety benefit of removing the structure will be much greater than the negative safety impact of increasing the volumes along SD44 and/or US18 by 25 vehicles.

Some wanted to know whether or not the structure had adequate vertical clearance?

SDDOT Response: The structure has adequate vertical clearance.

One questioned the effect removing the bridge would have on emergency response time from the fire department in Worthing to areas west of I-29?

SDDOT Response: Other than for the ½ mile of 281st Street between I-29 and 470th Avenue, the distance of travel from Worthing is the same, so response time should be the same, if not quicker, given that emergency vehicles can generally travel quicker on paved roadways.

The removal of the overpasses at 272nd Street (1989) and 284th Street (2008) was brought up by a member of the audience. Some in the audience recalled being at the public meeting held for the removal of the overpass at 272nd Street and how that meeting resulted in the overpasses at 281st and 278th Street being repaired rather than removed at that time. They then questioned why this bridge and the bridge at 278th cannot be repaired again?

SDDOT Response: Although almost any bridge can be repaired rather than replaced, these bridges have reached the point in their life cycle that it is more cost effective to replace rather than repair. Since they have reached that point, it becomes a question of the cost effectiveness of replacing the bridge versus removing the bridge.

Some questioned why have a public meeting when the Department has already made its decision to remove the bridge?

SDDOT Response: Although the Department has made its recommendation, the Department is not the ultimate decision maker. Per the SDDOT policy DOT-P&E-PD-4.0: Removing an Interstate Highway Crossing Structure, the Transportation Commission makes the ultimate decision. The public meeting was held to inform the public of the Department's plans and give them the opportunity to provide their input for the Commission's consideration.

One questioned should the bridge be replaced, how much of the replacement project would be federally funded rather than state funded?

SDDOT Response: As a project on the Interstate System, the project will more than likely be 90% funded by federal funds allocated to the state. This is true whether the bridge is replaced or removed.

One asked the legislators in attendance if they could stop the removal and force the Department to replace the bridge?

SDDOT Response: It is up to the legislature if they want to involve themselves into SDDOT project decisions.

One asked why the timing of this bridge's removal was scheduled to occur ahead of the reconstruction of the Harrisburg interchange (Exit 71), which is in obvious need of improvement?

SDDOT Response: Although the capacity and functional needs are greater at Exit 71, the structural condition of the bridge at Exit 71 is much better than the structural condition of the bridge at 281st Street.

One asked that if this bridge does need to be removed, could it at least wait until after the SD44 crossroad at the Worthing interchange (Exit 64) is widened so that the 281st Street bridge can be used as a local detour route during that construction?

SDDOT Response: The on-going I-29 Exit 62 to Exit 73 Corridor Study is currently looking at determining the timing of when Exit 64 will be replaced. Depending upon that timing, the bridge at 281st Street could still be physically in place when the time to replace Exit 64 and removed as part of the overall project. However, it is anticipated that the bridge at 281st Street would need to be closed to traffic or at least load restricted by that time due to its structural condition. Considering that 281st Street is currently a gravel township road, the official detour (if one is needed) for Exit 64's replacement would more likely use paved county or state highways. It is also believed that additional embankment will be needed for the reconstruction of Exit 64, and the embankment at the 281st Street bridge could be used for part of that additional embankment needed.

One asked whether or not Worthing's growth plan and the impact that growth will have on future traffic in the area was taken into account?

SDDOT Response: Although not specifically done for the decision on the 281st Street bridge, the I-29 Exit 62 to Exit 73 Corridor Study is projecting traffic levels for the area to the year 2045 using the Sioux Falls MPO's travel demand model, which takes into account the projected land use plans within the entire model area, which includes the Worthing area. The model indicates that the majority of the traffic growth in and around Worthing centers on 280th Street east towards SD115. The 2030 Worthing Comprehensive Plan prepared by SECOG indicates that all of Worthing's projected growth will be along 280th Street / 1st Street east

towards SD115 and west towards I-29, but nothing beyond ½ mile south of 280th Street / 1st Street except for along SD115.

Unrelated to the bridge, there were also complaints made about a recently completed signing project on county roads in Lincoln County being a hindrance to the agriculture industry and a waste of tax payer dollars.

SDDOT Response: The laws and program requirements of the MUTCD has led to more signs along township and county roads than there were in the past. While there have been cases where the plans or the contractor did something that was unintended, these locations would need to be addressed on a case by case basis. Suggest bringing the location(s) in question to the attention of the county highway superintendent.

WRITTEN COMMENTS RECEIVED

There were six written comment letters received. While all reiterated questions and comments made at the public meeting, there was one comment in the written comments that was not reflected at the public meeting.

A new bridge with a 75 year life expectancy at a net cost of approximately 1.7 million equates to \$22,000 per year. Replace.

SDDOT Response: While the initial estimated construction cost of replacing the bridge is \$1.7 million more than cost estimate to remove, the annual cost to the Department over the life of the bridge would be more than \$22,000 per year. When determining the annual costs of the bridge's life cycle, one needs to use both the total cost (\$2 million) to replace the bridge and the annual maintenance and future preservation projects needed to support the bridge to the estimated 75 year life expectancy. Taking those items into account brings the annual cost to the Department over the 75 years to \$95,000 per year.

WRITTEN COMMENTS RECEIVED

WRITTEN TESTIMONY

IM 0292(50)63 PCN 1241

LYNN TOWNSHIP, LINCOLN COUNTY

Structure 42-065-130 over I-29 at 281st Street

1. NOT ENOUGH CONSIDERATION TO POPULATION GROWTH
OVER THE NEXT 50-75 YEARS

2. SAFETY CONSIDERATIONS OF FARM EQUIPMENT
MOVING TO HWY 44

GOOD MEETING - GOOD PEOPLE RUNNING IT

RESPECTFUL DISCUSSION, BUT FRUSTRATION
OBVIOUS IN THOSE WHO BELIEVE IT'S A DONE
DEAL AND THE MEETING WAS JUST TO
LET EVERYONE KNOW.

Name: KEVIN JENSEN (STATE REPRESENTATIVE) DIST 16

Address: 27808 484TH AVE, CANTON

Email Address: KEVINJ@IW.NET, KEVIN.JENSEN@SOLLEGISLATURE.GOV

I would like to be notified when this project will be presented to the

Transportation Commission (If Yes, you must provide your name and address or email address):

Yes No

Written testimony received by November 30, 2017, will be included in the meeting transcript.

Please submit testimony by **November 30, 2017** to:

Steve Gramm, Planning Engineer
SDDOT - Project Development Office
700 East Broadway Avenue
Pierre, SD 57501-2586

WRITTEN TESTIMONY

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LYNN TOWNSHIP, LINCOLN COUNTY

Structure 42-065-130 over I-29 at 281st Street

- ① Safety - removal moves ag. equipment to 65mph roads
- ② Growth in the Sioux Falls area squeezes ag. equipment further south. Exit 7~~1~~ is bridge deficient. Exit 68 is 65mph. Exit 64 is 65mph. Exit 62 is 65mph. Driving a tractor at 18mph with impatient drivers behind you is often life and death decisions. Come ride with me.
- ③ I-29 Corridor Study proposes Exit 71 and Exit 64 are being looked at for replacement. All traffic will be diverted. Leave the overpass on 281st St. Replace.
- ④ A new bridge with a 75 year life expectancy at a net cost of approximately 1.7 million equates to \$22,000 per year. Replace.

Name: Marilyn Riemback

Address: 27722 471st Ave Lennox SD 57039

Email Address:

I would like to be notified when this project will be presented to the
Transportation Commission (If Yes, you must provide your name and address or email address):

Yes No

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There are many reasons not to close this bridge. Safety is the primary reason as it keeps farm equipment off the Canton exit and the Waltham exit. That is what this bridge accomplishes. It allows farm equipment to move across the interstate in a safe manner and avoid the Canton & Waltham exits. It is valuable to the farmers in the area. Please invest in this bridge and keep it open. It is worth the 1.7 million -

Name: Jim Bolin - State Senator -

Address: 403 W. 11th - Canton, S.Dak. 57013

Email Address: jimbolin@gmail.com

I would like to be notified when this project will be presented to the Transportation Commission (If Yes, you must provide your name and address or email address):

Yes No

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When I see all the money that has been spent on safety (signs on township roads and rumble strips on state highways) I question why the state would do something that would make I busy in other ~~ways~~ ~~ways~~ more ~~ways~~ unsafe. Highway 18 is going to be rebuilt ~~as~~ as a 4 lane divided highway why would you want more farm traffic on it? As ~~see~~ a farmer who lives on Hwy 18 I ~~can~~ have first hand experience on how unsafe ~~this~~ road can be. Although it may not make ~~an~~ economic sense to replace the bridge it does make sense from the safety aspect.

Thank You

Name: Craig Stearns

Address: 474 Du US Hwy 18 Worthing SD 57071

Email Address: craigandlee.stearns@live.com

I would like to be notified when this project will be presented to the

Yes No

Transportation Commission (If Yes, you must provide your name and address or email address):

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WRITTEN TESTIMONY

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LYNN TOWNSHIP, LINCOLN COUNTY

Structure 42-065-130 over I-29 at 281st Street

I am Clifford Brian Abbas my wife Cheryl and I live on our farm at 46965 281st St Worthing SD. We attended the meeting in Worthing on 11-16-17 regarding the condition and possible removal of the overpass on I-29 along 281st Street and we do understand the concerns the state would have about its condition and the replacement costs.

We have a family farm operation that has farms on both sides of I-29. The overpass on 281st St is a vital crossover for our grain hauling and farm machinery along with a lot of other crossings we make during the year. There are a lot of other farm operations that use the 281st bridge with some of them coming quite a distance such as east to Canton and beyond to those from Hennox, Chancellor and west from there. Some have come to the 281st crossover to safely cross because of the previous bridge removals.

Continues on attached sheet

Name: Clifford Brian Abbas

Address: 46965 281st Street Worthing SD 57077

Email Address: cbrian.abbas@gmail.com

I would like to be notified when this project will be presented to the

Transportation Commission (If Yes, you must provide your name and address or email address):

Yes No

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Pierre, SD 57501-2586

We all cross on 281st St for good reasons not only just convenience and economics but especially for safety reasons. Much of the machinery can be large and slow moving compared to most vehicles so with the congestion and the impatience of many drivers we are all very concerned about safety for everyone when and if we are forced to cross on Hyway 44 and Hyway 18 bridges.

It is very unnerving to think in the future we may have to send our family or workers to cross at those very busy overpasses, that will only continue to get busier with the commercial and residential development that will continue in the future.

In this situation safety is a huge issue and we hope for everyone concerned not only the farmers but for all those who use these busy bridges that you will consider not removing the overpass on 281st St or if it must be that a new bridge would replace it.

We appreciate your time and consideration in this matter.

Thank you

C. Brian Ahnes

Steve Gramm of
To DOT Personnel.

Just read in the Lennox Paper of possible change on the I-29 281 street bridge. We are 7 miles west of bridge on a farm and are over that road some time several times a day with our custom haying equipment in the summer, and again with wagons and harvest equipment in the fall. With overpasses only 1 mile in either direction I know it seems crazy to stick money in the saving of the bridge. Even ten years ago it would not of been as much as a concern, but with large car dealerships, RV dealerships, large fertilizer plant, worthing S.D growth and Truck stops on our other option Roads ~~It~~ purposely try to avoid with our over width equipment, as it seems I always have a "close call" on the other overpasses. I hope you can consider lives over money in this hard decision, and as growth of Sioux Falls expands the bridge will be even more of an asset for many.

Charles + Elaine Bruns
and Family

28069 464 Ave Lennox S.D



PHONE COMMENT RECEIVED

Phone Messages Received:

November 9th. 8:29 am

Ah this is Don Abbas at Worthing, South Dakota, and for the meeting coming up a week from today. Some of the concerns for taking out that bridge on 281 are the use of it by the local elevators the Farmers Coop Society and the Eastern Farmers and for many of the farmers who go across there with machinery to provide a safe overpass rather than getting into the heavy traffic on highway 44 and highway 18. And then we also have fire issues there. The fire truck gets out on the road to get across there. The school buses, and the ambulance service, the mail service and this time of year, there was a one gentleman probably took 30 loads of grain across there in one afternoon. So at times it really has its many uses.

Thank you very much.

PRESS COVERAGE

Citizens meet with DOT on bridge future

November 22, 2017 | By Wendy Sweetser



Citizens in the Worthing area gathered at the Worthing Elementary School Nov. 16 to hear about a bridge in the area.

The South Dakota Department of Transportation presented information about replacing or removing the bridge over Interstate 29 at 281st Street. Steve Gramm, planning engineer for the DOT, said the bridge was built in 1958. Bridges built at that time were built to last for about 50 years and this one is approaching 60.

"The bridge is beyond what is its service life. We've gotten its life out of it. It's not like it's prematurely failing or anything like that," Gramm said.

The bridge is classified as structurally deficient. The sufficiency rating is 53.1 on a

1-100 scale. The deck rating and superstructure rating are both a 4 on a 1-9 scale. There is exposed steel and the deck overlay is starting to crack. He is most concerned about water leakage through the abutment wall on both ends of the bridge. The department did some traffic counts on the bridge during the end of May and October of 2016. They came up with an average daily traffic count of 25 vehicles.

Some residents in attendance disagreed with that finding.

The department is recommending removing the structure to the state Transportation Commission. The commission will meet sometime in the next few months to talk about what to do about the bridge. A date has not been set, but the meeting will likely be in Pierre.

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