



Public Meeting/

Open House

May 20, 2014

Project NH 0081()155 PCN 04YQ

Codington County

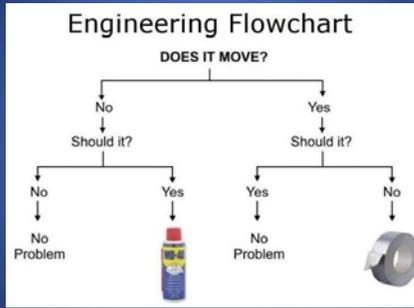
**US81 - Intersection of US81 & 20th Ave SE
(South Connector) in Watertown**

Intersection Improvements

The South Dakota Department of Transportation provides services without regard to race, color, gender, religion, national origin, age or disability, according to the provisions contained in SDCL 20-13, Title VI of the Civil Rights Act of 1964, the Rehabilitation Act of 1973, as amended, the Americans With Disabilities Act of 1990 and Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, 1994.

Any person who has questions concerning this policy or who believes they have been discriminated against should contact the Department's Civil Rights Office at 605-773-3540.

US81/20th Ave SE - Watertown



Mark Malone, PE

SD DOT



Why are we here?

- To discuss the intersection of US81 & the South Connector in Watertown
 - ✓ Traffic volumes
 - ✓ Safety Concerns
- To involve public in the design process
- Exchange ideas – listen and discuss concerns



SDDOT Intersection Review



Traffic



Crashes



Costs

Evaluate Alternatives



Crash Data 2004-2013

- 2004-2008 – 1 crash
- Build Segment 1 (East half) in 2009
- 2009 – 1 crash
- 2010 – 2 crashes
- 2011 – 3 crashes
- Build Segment 2 (West half) in 2012
- 2012 – 6 crashes
- 2013 – 3 crashes
- Predictive methodology – 1.31 crash/yr

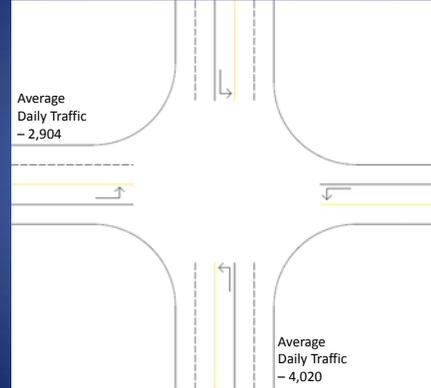
Crash Types

- Angle Intersection – 10
- Rear Ends – 4



- Injury – 10
 - ✓ This is cause for concern

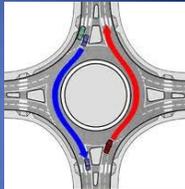
Existing Conditions at the Intersection



Intersection Analysis

- Existing 2 way stop controlled
 - ✓ High volumes on cross road
 - ✓ Safety concerns
 - ✓ Just not going to work.....

- Traffic Signals
 - ✓ Warranted during US212 reconstruction only



- Roundabout
 - ✓ Eliminates the need for signals
 - During US212 reconstruction
 - Future
 - ✓ Enhances safety
 - ✓ Most efficient traffic flow



Signal - \$200,000

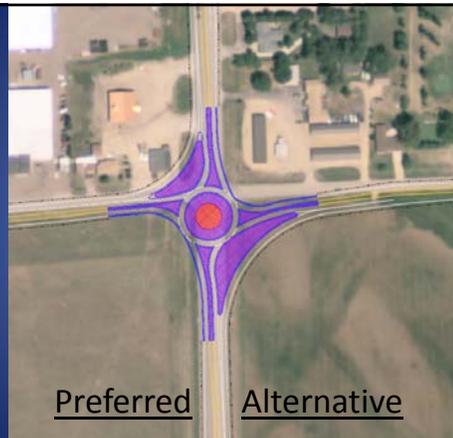
Roundabout - \$1 Million

Crash reduction – at least 1 crash/yr - \$158,200/yr

User cost savings – \$2.5 Million (20 yrs)

Roundabout vs Traffic Signal

- Cost
 - ✓ Roundabout is more expensive (construction costs)
- Traffic
 - ✓ Roundabout has a lower user cost
- Safety
 - ✓ Roundabout is much safer



Roundabouts, New Concept?

➤ NOT REALLY

- ✓ UK has an estimated 25,000
- ✓ France has more than 30,000
- ✓ USA – Currently there are about 3,500 in operation

- Brookings has one
- Sioux Falls has two



Brookings

Innovation Campus



Sioux Falls

69th St & Southeastern Ave



Sioux Falls

Career Ave at University Center



Roundabout Safety Facts

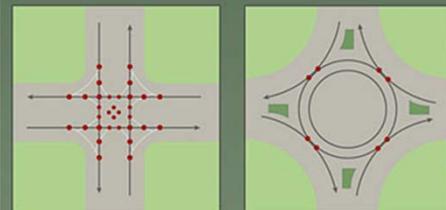
➤ According to Federal Highway Administration Intersection Statistics

- ✓ 90% reduction in fatalities
- ✓ 76% reduction in injuries
- ✓ 35% reduction in all crashes



- Single Lane Roundabouts are the safest at-grade intersection possible

With roundabouts, head-on and high-speed right angle collisions are virtually eliminated.



[Traditional intersection]

[Roundabout]

● Potential vehicle conflict point

32 CONFLICT POINTS

8 CONFLICT POINTS

Potential:
High Speed Angle
Crashes

Rear End

Sideswipe

Insurance Institute for Highway Safety

USE BATHROOM	0	EAT	21
WASH	13	LOS ANGELES	3
THEIR BELT	12	THEIR PANTS	15
950	3	900	10
DECEMBER	4		
		TOTAL	119

- Reasons cited for concern:
 - ✓ Fear of the unknown
 - ✓ Safety concerns
 - ✓ Confusion on how to maneuver

Before Construction

- ✓ 31% in favor
- ✓ 41% strongly oppose

After Construction

- ✓ 63% in favor
- ✓ 15% strongly opposed

Sisseton

Proposed Roundabouts in March 2013

Concerns Regarding Roundabouts

Why are folks opposed to Roundabouts?
- Most gave multiple reasons

Reason	Count
Total opposed	23
No reasons given	4
Truck Turning	10
Confusion	13
Traffic Concerns	14
Snow	3

Traffic Concerns

- Roundabouts (single lane) can handle much more traffic than what is expected
 - ✓ up to 25,000 veh/day
 - ✓ Watertown Existing – 6,900 veh/day
- Traffic Engineering is a science and an art
 - ✓ Our experts have sophisticated programs to aid in the analysis
 - ✓ As traffic increases, especially in the E/W direction, the advantages of a roundabout increase

Driver "UN" familiarity

➤ SDDOT follow up meetings

- ✓ There are opportunities for outreach meetings for education on roundabouts

- More folks are becoming familiar



- Provide comments if this is desired for your community

Rules of the road

Traffic Signal

1. If the signal is a red ball, come to a complete stop.
 - a) After stopping, you may turn right, but must yield to oncoming traffic, except if the sign says "NO TURN ON RED", you cannot.
 - b) After stopping, you may turn left on red from a one-way street onto a one-way street but must yield to oncoming traffic.
2. If the signal is a green ball.
 - a) you may go straight or turn right, but only if the way is clear - you must yield to vehicles still in the intersection.
 - b) you may turn left but must yield to oncoming traffic.
3. If the signal is a yellow ball.
 - a) you may go straight or turn right.
 - b) you may turn left but must yield to oncoming traffic.
4. If there is one signal head for several lanes, it applies to all those lanes; if there is a signal head for each lane, each lane is governed by its own signal head, and if there are multiple heads but not so many as there are lanes, generally a head centered above a lane governs that lane, a single head located above the line dividing two lanes governs both lanes, and a single head centered above three lanes governs all three lanes.
5. If the signal for your lane is a red arrow pointing left or right, come to a complete stop.
 - a) After stopping, you may turn right on red but must yield to oncoming traffic, except if the sign says "NO TURN ON RED", you cannot.
 - b) After stopping, you may turn left from a one-way street onto a one-way street, except if the sign says "NO TURN ON RED", you cannot.
6. If the signal for your lane is a red arrow pointing up, you may not go straight.
7. If the signal for your lane is a green arrow pointing left or right, you may turn in the direction of the arrow, after yielding the right-of-way to vehicles within the intersection, even if the red light is burning at the same time.
8. If the signal for your lane is a green arrow pointing up, you may go straight, after yielding the right-of-way to vehicles within the intersection, even if the red light is burning at the same time.
9. If the signal for your lane is a yellow arrow, it means the same thing as the yellow ball, but applies only to movement in the direction of the arrow.
10. If the signal is a blinking red ball, come to a complete stop and then enter the intersection, except you must yield to other vehicles already in the intersection.
11. If the signal is a blinking yellow ball, enter the intersection with caution, except you must yield to other vehicles already in the intersection.
12. If none of the bulbs on the signal head are illuminated (power outage), come to a complete stop and then enter the intersection with caution, except you must yield to other vehicles already in the intersection.

*Special Thanks to Ken Sales

Rules of the road

Roundabout

1. Yield to traffic already in roundabout.

Truck Concerns - Video

Kligerman, Thomas

Roundabout at NY
29&40, Greenwich, NY
Eastbound Modular
Home Turning Left
Recorded August 27,
2004

How many vehicles do you see go through the intersection while the mobile home is going through?

Kligerman, Thomas

Roundabout at NY
29&40, Greenwich, NY
Eastbound Modular
Home Turning Left
Recorded August 27,
2004

Truck Turning Tracks



Project Construction

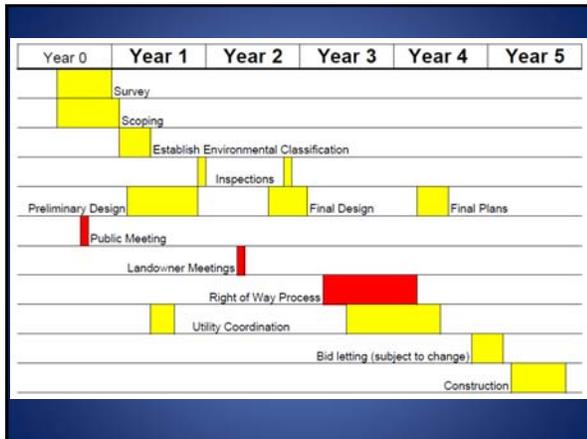
- Construction to begin in 2018
 - ✓ Pending Funding & Scheduling
 - ✓ 1 construction season



Traffic During Construction

- Area/Region Offices currently reviewing options

- ✓ Minor Impacts
- ✓ Access to businesses will be maintained



Design Review with Landowners

(based on 2018 construction)

- Approximately 12-18 months from now
 - ✓ Applicable to all affected Landowners
 - ✓ You will be contacted by SDDOT
 - ✓ Discuss your property
 - Design details such as driveway location and width, landscaping features, etc.
- Right of Way process approximately 2 years from now

- Website (project information)

✓ <http://sddot.com/dot/publicmeetings>

- Written Comments Due Tue. June 3, 2014

- ✓ Mail - 700 E Broadway Ave Pierre, SD 57501
- ✓ Email - mark.malone@state.sd.us
- ✓ Here - Now





Environmental, Social & Economic Impacts

and

Advanced Utility Coordination

Environmental, Social & Economic Impacts

- Project will comply with all state and federal environmental regulations
- Project will be coordinated with the following state and federal agencies:
 - SD Dept. of Environment & Natural Resources
 - SD Dept. of Game, Fish & Parks
 - US Fish & Wildlife Service
 - State Historic Preservation Office
 - No splitting of neighborhoods will occur as a result of this project

- For additional information, please contact :

Terry Keller, Engineer Supervisor
SDDOT Project Development Office
700 E. Broadway Ave.
Pierre SD 57501

Phone: 773-3721 E-Mail: Terry.Keller@state.sd.us

Advanced Utility Coordination

- Highway projects may require adjustments or relocation of existing utilities located along or crossing the highway project. The SDDOT has an "Advanced Utility Coordinating Process" in place that addresses all existing utility involvement. This process involves meeting with the utility owner and project designers to **review** any conflicts and determine the most cost effective option of changing the design to avoid the existing utility or adjusting the utility. If the utility is required to relocate, all replacement utility easement acquisition and relocation work will be addressed and coordinated between the landowner and the utility company.

- For additional information please contact:

Dave Hausmann, Utility Coordinator
SDDOT Project Development Office
700 E. Broadway Ave.
Pierre, SD 57501

Phone 605-773-6593; E-Mail: Dave.Hausmann@state.sd.us



Wetland Mitigation Registry Form

Federal regulations require that unavoidable wetland impacts caused by highway construction be mitigated. Wetland mitigations may be from 1) wetland creation – typically, at a borrow pit; 2) wetland restoration – plugging an existing, drained wetland; or, 3) by small dam construction.

The South Dakota Department of Transportation (SDDOT) may participate in the cost of wetland creation/restoration, if the wetland can be used to mitigate wetland impacts caused by highway construction.

If you are interested in creating or restoring wetlands on your property, please complete the attached form and mail to: Terry Keller, Engineering Supervisor SDDOT, and 700 E. Broadway Ave., Pierre, SD 57501. Your name will be added to the SDDOT Wetland Mitigation Registry and a SDDOT representative will contact you with additional information.

Yes, I am interested in assisting the SDDOT to mitigate wetland impacts by creating or restoring wetlands on my property.

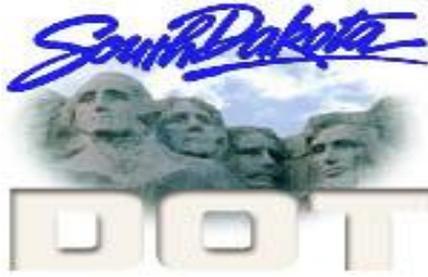
Name: _____

Address: _____

Phone #: _____

Legal Description of property: _____ 1/4 of Section _____
Township _____, **Range** _____, **County** _____

Please note: Completion of this form does not commit either you or the SDDOT to a mitigation project. It is a statement of intent only.



Right of Way Information

Individual Landowner Meetings: During the early stages of the project's design, SDDOT will schedule a meeting with individual landowners having property adjacent to the project. See the following page for an explanation of the landowner meeting.

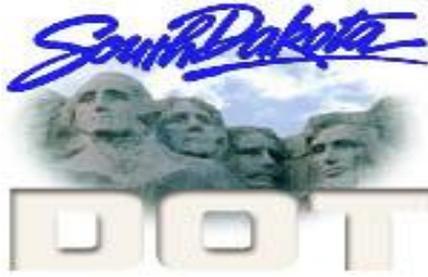
Property Acquisition Offer: After the project construction plans have been prepared and the right of way limits have been established, you will be contacted by an appraiser or negotiations agent to visit with you for that portion of your property that is needed for construction of the project. Your property will be valued and a written offer presented to you by a negotiating agent who will contact you for an appointment to make the written offer.

Relocation Assistance Program: This program provides a variety of services and payments to owners and tenants who have personal property affected by the right of way being acquired for the project.

Relocation payments are in addition to payments made for the real property being acquired. To preserve your eligibility for payments, do not move property until you have received a written relocation offer or have contacted Andrew J. 'Andy' Jackson of the SDDOT Right of Way Program in Pierre. His phone number is 773-2911. Anyone not satisfied with the relocation offer made to them may appeal using the procedures described in the Relocation Brochure.

The landowner may be reimbursed for various fair and reasonable incidental expenses that may be incurred during the transfer of property to the State depending on impacts to personal property and qualifications.

Right of Way Information Brochures: Two brochures have been prepared which explain the SDDOT's Right of Way process. They provide information on your rights regarding the acquisition of your property and the benefits available to you with regard to the Relocation Assistance Program. These brochures are available at this meeting on the "Sign-in" table. Please feel free to take a copy of each with you.



Individual Landowner Meetings

The purpose of this meeting is to provide you with an opportunity to comment on various issues pertaining to the design of this highway project as it relates to your property.

The following topics will be discussed at the meetings. Please note that not all topics will apply to every property owner.

1. Permanent purchase and/or temporary use of your property.
2. Locations and widths of entrances to your property: The standard South Dakota Department of Transportation (SDDOT) entrance-width for rural highways is 24 feet. Note: In general, existing entrance widths along rural State Highways are 24 feet or smaller. A maximum width of 40 feet is allowed at locations where it is deemed appropriate and necessary. Entrances in urban areas can vary from 16 feet to 40 feet.

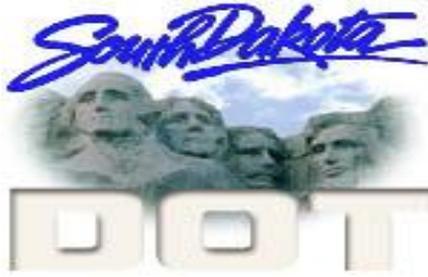
The goal of the SDDOT is to provide property owners located adjacent to the project with the access they need, and at the same time, enhance highway safety and reduce project costs. In some instances, the SDDOT may seek to combine duplicate entrances. For example, if your property has two or three entrances to the same property that are located close to each other, we would ask you to assess your current entrance needs and consider one entrance location that will meet those needs.

3. Permanent fencing adjacent to the highway: SDDOT's fencing policy allows for the replacement of all disturbed fence with like-kind fence.

Two fence types are typically installed: **Type 2:** 4-strand barbed wire with 8-inch wire spacing, and **Type 6:** 32-inch woven wire with 1 strand of barbed wire on the bottom and 2 strands of barbed wire on the top. Page 12 of the "Better Roads Brochure" contains added discussion of your permanent fencing options. This brochure will be available at the meeting.

4. Temporary fencing adjacent to the highway: Do you anticipate having livestock in pastures located adjacent to the proposed project during highway construction activities?
5. Are you aware of any waterlines, drainfields, septic tanks, underground storage tanks, underground power lines, etc. that are located adjacent to the project and may be impacted by construction activities?
6. Are there any highway-related drainage or flooding problems located along your property or elsewhere along this section of highway?
7. Possible sites for gravel and additional fill material: Are you aware of potential material available for construction that might be located adjacent to the highway?
8. Temporary access during construction activities.

Please review your property and be prepared to discuss the above issues, as well as any other issues that you feel are unique to your property. No offers to acquire property will be made at these meetings since revisions to the plans may occur from your input.



Access Management

South Dakota's Commitment to Safety and Smart Investment Decisions In Transportation

What is Access Management?

Access Management is the process of providing highway entrances only at locations where they can be provided safely and efficiently.

Consider that each access point added to an undivided highway in an urban or suburban area increases the annual accident rate by 11 to 18 percent on that highway segment. In rural areas, each added access point increases the annual accident rate by 7 percent. Overall, driveway-access accidents alone cost South Dakota approximately \$36.5 million each year.

Each additional access point also contributes to congestion. The more driveways on a street the more places where people are slowing, changing lanes and turning. A five-lane street can quickly become a parking lot when there are many driveways in each block. When that happens, our valuable transportation investments are wasted and access to adjacent businesses is restricted.

Controlled access facilities are segments of highway where either no access or only limited access to the highway is allowed. Interstate highways are an example of controlled access facilities where no access to the highway is allowed.

Good access depends on the following:

- Limiting the number of conflict points (places where there is a potential for crashes)
- Separating conflict areas
- Reducing interference with through traffic
- Providing good on-site circulation and storage
- Properly spaced traffic signals

How does Access Management affect businesses?

Studies have shown that access management can provide three benefits to businesses adjacent to highways:

- Making sure that drivers can get in and out of businesses without being blocked by other traffic
- Making the highway more attractive by reducing congestion
- Extending the business' effective service area by reducing travel times

These benefits come not from having many driveways, but by having well-planned, well-located, high-capacity access points on the highway.

Even skeptical business owners have found that proper access management results in an improved business climate, as customers can easily get in and out of their business establishment.

For more information on Access Management, contact:

Brooke White, SDDOT Access Management Engineer, 5316 W. 60th St Sioux Falls, SD 57107

Phone: 605-367-4970 Ext. 2114; E-Mail: Brooke.White@state.sd.us

