

**STAFF MEETING MINUTES  
LANCASTER COUNTY BOARD OF COMMISSIONERS  
THURSDAY, JULY 18, 2019  
COUNTY-CITY BUILDING  
ROOM 113 - BILL LUXFORD STUDIO  
8:30 A.M.**

Commissioners Present: Sean Flowerday, Vice Chair; Deb Schorr, Rick Vest and Christa Yoakum

Commissioners Absent: Roma Amundson, Chair

Others Present: Kerry Eagan, Chief Administrative Officer; Ann Ames, Deputy Chief Administrative Officer; Dan Nolte, County Clerk; Cori Beattie, Deputy County Clerk; and Leslie Brestel, County Clerk's Office

*Advance public notice of the Board of Commissioners Staff Meeting was posted on the County-City Building bulletin board and the Lancaster County, Nebraska web site and provided to the media on July 17, 2019.*

The Chair noted the location of the Open Meetings Act and opened the meeting at 8:30 a.m.

**AGENDA ITEM**

**1) APPROVAL OF STAFF MEETING MINUTES FOR JULY 11, 2019**

**MOTION:** Vest moved and Yoakum seconded approval of the July 11, 2019 Staff Meeting minutes. Schorr, Vest, Flowerday and Yoakum voted yes. Amundson was absent. Motion carried 4-0.

**2) LABOR NEGOTIATIONS (EXECUTIVE SESSION) –** Doug McDaniel, City of Lincoln Human Resources Director; Kristy Bauer, Lancaster County Deputy County Attorney; Nicole Gross, City of Lincoln Compensation Manager; and Amy Sadler, City of Lincoln Compensation Technician

**MOTION:** Schorr moved and Yoakum seconded to enter Executive Session at 8:33 a.m. for the purposes of labor negotiations, and to protect public interest.

The Vice Chair said it has been moved and seconded that the Board enter Executive Session.

**ROLL CALL:** Schorr, Vest, Yoakum and Flowerday voted yes. Amundson was absent. Motion carried 4-0.

The Vice Chair restated the purpose for the Board entering Executive Session.

**MOTION:** Vest moved and Yoakum seconded to exit Executive Session at 9:12 a.m. Schorr, Vest, Yoakum and Flowerday voted yes. Amundson was absent. Motion carried 4-0.

**3) GRANT APPLICATION TO DEPARTMENT OF JUSTICE – OFFICE FOR VICTIMS OF CRIME (\$276,000 OVER THREE YEARS)–** Bruce Prenda, Lancaster County Chief Deputy County Attorney; Sara Hoyle, Lancaster County Human Services Director

Prenda reviewed the grant application for a Victim Assistance Specialist, who would coordinate assistance for victims primarily of child abuse, sexual assault and domestic violence, along with a facility dog (see agenda packet). He added Sarpy County has a facility dog in their courthouse (Exhibit A). The dog and the specialist would have specific training for use in the courthouse and would be available to the victims for the duration of the case.

**MOTION:** Vest moved and Yoakum seconded to approve the grant application.

Prenda said veterinary services have been included in the grant.

**ROLL CALL:** Schorr, Vest, Yoakum and Flowerday voted yes. Amundson was absent. Motion carried 4-0.

**4) BUDGET UPDATE –** Dennis Meyer, Lancaster County Budget & Fiscal Director; and Pam Dingman, Lancaster County Engineer

Meyer stated he needs the Board's direction regarding property tax funding used for the County Engineer's Office in order to file a proposed County budget.

Schorr asked why the request is now \$8,000,000 and not the previously discussed \$4,200,000. Meyer said it is driven by the fund balance which was lower than anticipated. Current fund balances have not been overspent and those not used are applied the following fiscal year.

Regarding encumbrances, Dingman said, while projects are approved in a fiscal year, they can take multiple years to complete. The Highway Fund and the Bridge Fund have \$7,200,000 and \$3,700,000 encumbrances, respectively.

Dingman added some projects have been delayed due to contractors defaulting. Bridge G-111 should be completed in two weeks, and Bridge K-121 may be added as an emergency project.

Flowerday suggested moving \$1,000,000 from the sinking fund for buildings into the roads and bridges projects (see agenda packet). Dingman expressed concern about the reliability of some facilities, stating maintenance funds for the facilities is necessary.

Regarding last week's staff meeting discussion of Full Time Equivalents (FTEs), Dingman stressed the need for increased employees for efficient day-to-day field maintenance, adding if the maintenance crew is funded, she would acquiesce the Survey Technician.

Schorr asked if the maintenance positions could be switched with existing unfilled engineering positions. Dingman answered no.

Meyer reviewed the requested funds for Fiscal Year 2019-2020 (see agenda packet and Exhibit B). Dingman added some of the funds are in sinking funds.

Schorr asked why the increased decrease in funds was not seen last fiscal year. Dingman stated \$1,000,000 in funds from the Raymond Road overlay and \$1,500,000 from Bridge C-91 were saved. Those funds were included in the 2018 budget; however, the environmental permit came later than anticipated causing the funds to not be spent. There are no savings in the fiscal year 2019 budget. For fiscal year 2020, Bridge F-88 is waiting for approval of environmental permitting. The estimated cost to repair the bridge is \$1,750,000. She also expressed concerns for bridges on North 14<sup>th</sup> Street.

When asked what projects would be delayed if the \$8,000,000 request is not funded, Dingman answered Bridges F-88, F-78, F-82, F-86, M-164 and Q-110 would be cut and North 14<sup>th</sup> Street could be at risk for being closed indefinitely.

Meyer stated if the \$8,000,000 were funded it could mean a property tax increase of close to \$.03.

Vest asked if the entire request is granted, are there enough resources to address the projects. Dingman said the people are available to do the projects, though some engineering may not be complete.

Vest reviewed the property tax amounts allocated to the Engineer's Office from Fiscal Years 2014 to 2019 (Exhibit B). Dingman stated the funds she is requesting are for less than 2% of the County's critical needs.

Flowerday said he would not be supportive of a \$.03 levy increase in order to grant the full \$8,000,000 request, adding he would be inclined to look at a \$.075 levy increase.

Dingman requested permission to purchase of six dump trucks, three motor graders, smaller equipment, salt, rock and gravel. These items would total \$5,600,000 to be spent in a two-week timespan. Meyer added the County Board can approve a one-time increase of the 1/12 spending limit as set in Nebraska State Statute 23-914.

Flowerday suggested starting with a \$3,000,000 increase to the Engineer's budget. Schorr added the funds could come from a reduction to the Railroad Transportation Safety District (RTSD) levy, a levy increase and cuts to other expenditure requests.

Dingman reiterated North 14<sup>th</sup> Street repairs will be put on hold, bridges M-164 and Q-110 will remain closed, and there is the possibility that bridges R-210 and R-248 will also remain closed.

Schorr requested the Engineer send the Board the bridge numbers and Average Daily Traffic (ADT) counts.

Eagan stated this issue highlights the importance of LB267 (Provide a duty for the county board relating to deficient bridges and authorize a tax levy).

Dingman added the current budget could reconstruct bridges E-171, Y-181 and S-179.

The Commissioners thanked Dingman for her commitment to the safety of citizens.

A staff meeting will be held next Tuesday, July 23 after the Board of Commissioners meeting.

## **BREAK**

The meeting was recessed at 10:25 a.m. and reconvened at 10:35 a.m.

### **5) 68th STREET & 148th STREET SAFETY STUDY UPDATE – Pam Dingman, Lancaster County Engineer; Larry Legg, Lancaster County Civil Engineer IV**

Adam Denney, Traffic Engineer with Felsburg, Holt and Ullevig, was present for discussion.

Denny reviewed the South 148<sup>th</sup> Street and South 68<sup>th</sup> Street safety studies (Exhibits C and D).

Denney reviewed Drive Smart, an educational outreach program with schools on distracted driving, impaired driving and seatbelt safety. Additionally, Dingman discussed the national Toward Zero Deaths Program, which is a national program focused on having zero deaths on the roads. Program participants are encouraged to implement a safety plan. Dingman and Legg have been certified with the federal government.

Schorr asked if the some of the safety funds from the Saltillo Road project will be reallocated for other projects. Dingman stated those funds have already been designated, however, there could be funds from other entities that may be reallocated.

### **6) CHIEF ADMINISTRATIVE OFFICER REPORT**

#### **A. County Board Initiatives Update**

Ames stated most annual report items have been received. Schorr added several counties have substituted their annual reports with "day in the life of (the particular department/office)".

Regarding the Chief Administrative Officer (CAO) Search, the Commissioners will meet with Prothman next week.

Regarding the website, Ames said the consultant will be here next week to meet with the departments and discuss the upcoming migration.

#### **B. Appointments to Lincoln-Lancaster County Planning Commission (Shams Al-Badry and Cindy Ryman Yost)**

It was the consensus of the Board to move the appointments to the July 30 meeting.

#### **C. Amendment of Improvement Fund Grant Contract with Heartland Bike Share**

Eagan stated due to the late delivery of the equipment, the contract with Heartland Bike Share (C-19-0341) end date should be amended to October 31, 2019. The contract will be on a Tuesday agenda.



## 7) DISCUSSION OF BOARD MEMBER MEETINGS ATTENDED

### A. Information Services Policy Committee – Yoakum

Yoakum reported she was appointed as Vice Chair of the committee.

### B. Lincoln Parks and Recreation Advisory Board – Vest

Vest said a joint meeting was held with Lincoln Parks and Recreation Foundation Board members with informational displays on six projects under consideration for funding.

### C. National Association of County Officials Conference – Schorr

Schorr reported there was an election of the new National Association of County Officials (NACo) president. Conference sessions she attended focused on health savings accounts, Toward Zero program, immigration at the local level, and branding.

### D. Lincoln Independent Business Association Elected Officials meeting – Flowerday/Vest

Flowerday stated the budget, the National High School Finals Rodeo (NHSFR) and county wheel tax were discussed.

### E. District Energy Corporation – Flowerday/Schorr

The meeting was rescheduled for July 31.

## OTHER MEETINGS ATTENDED

Flowerday reported he attended the Human Services Joint Budget Committee meeting, where due to the lack of a quorum, it served as an informational meeting for the new members.

## 8) SCHEDULE OF BOARD MEMBER MEETINGS

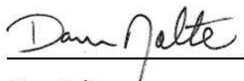
Informational only.

## 9) EMERGENCY ITEMS

There were no emergency items.

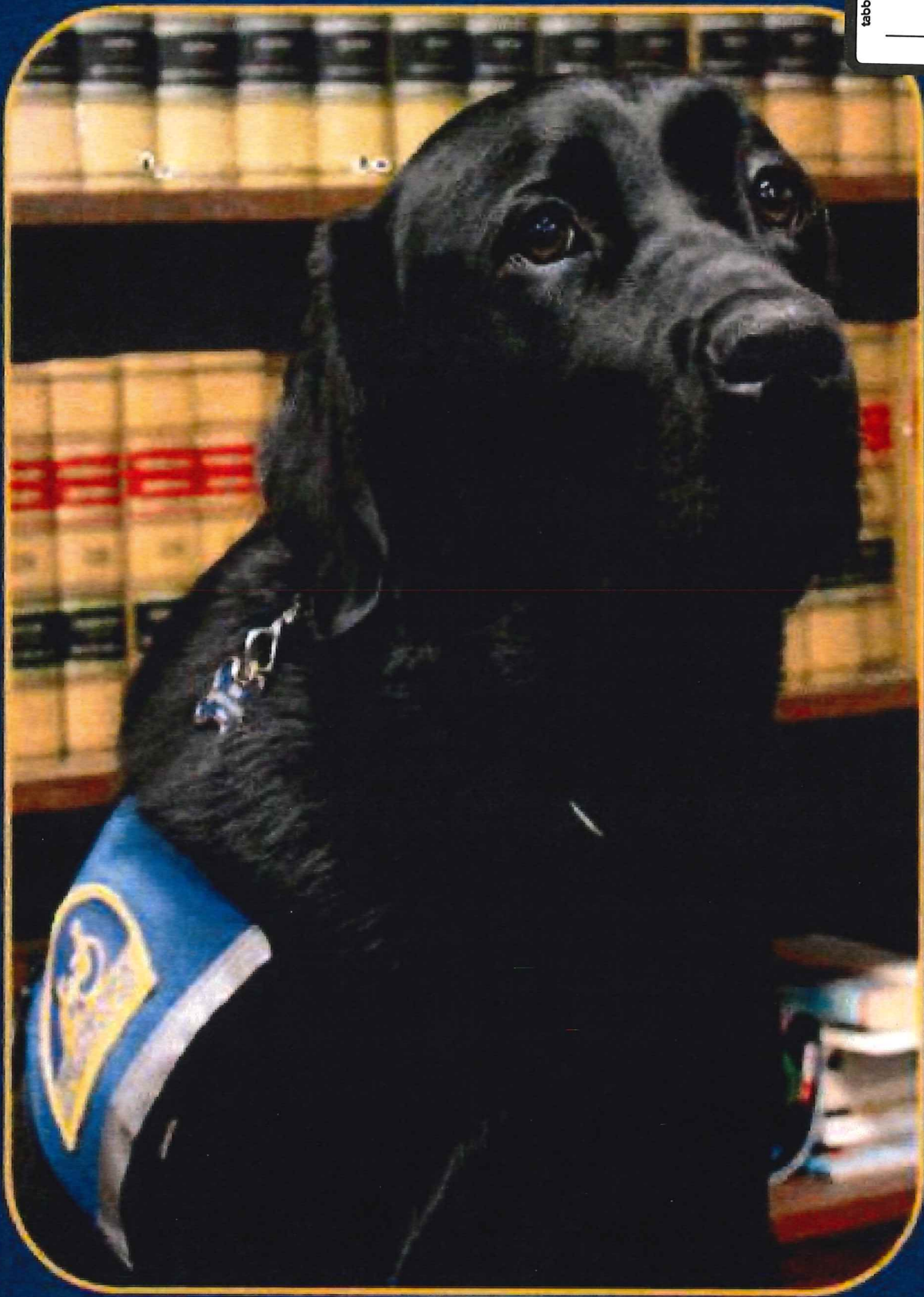
## 10) ADJOURNMENT

**MOTION:** Schorr moved and Vest seconded to adjourn at 11:24 a.m. Schorr, Vest, Flowerday and Yoakum voted yes. Amundson was absent. Motion carried 4-0.



Dan Nolte  
Lancaster County Clerk





*Harpy County Attorney's Office*

***Manny • Facility Dog***

Trained by Canine Companions for Independence



# *Manny*

**Date of birth:** 5-8-12

**Weight:** 65 lbs

**Breed:** Labrador/ Golden Retriever

**Hobbies:** I like chasing anything that rolls, chewing on my bones, playing with kids, taking long naps, and hanging out with my doggie pal.

**Handler:** Jean Brazda, Executive Director Sarpy County Victim Witness Unit and Diversion Services

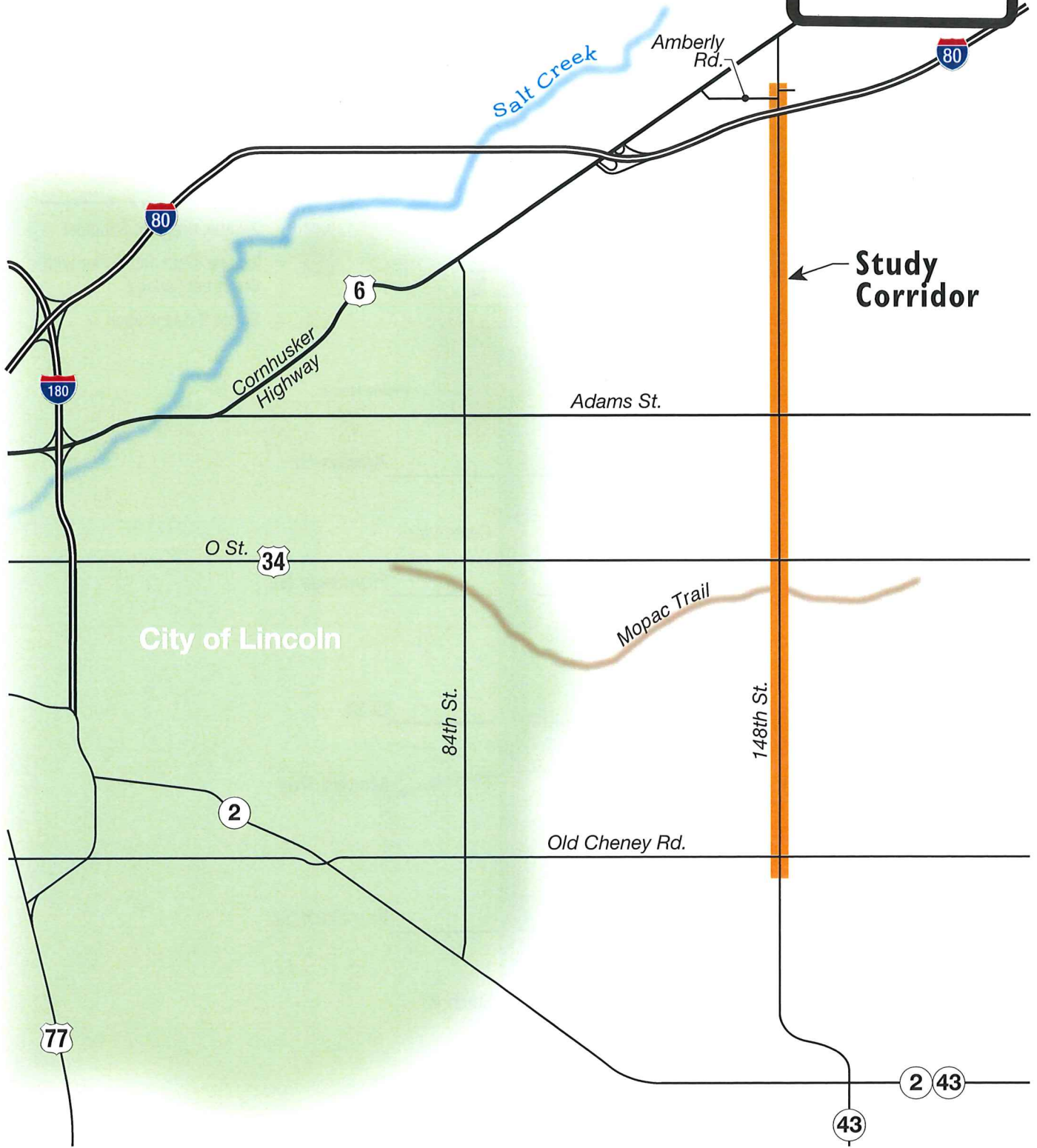
**Duties:** I assist crime victims, witnesses and others during stressful stages of the criminal justice process.

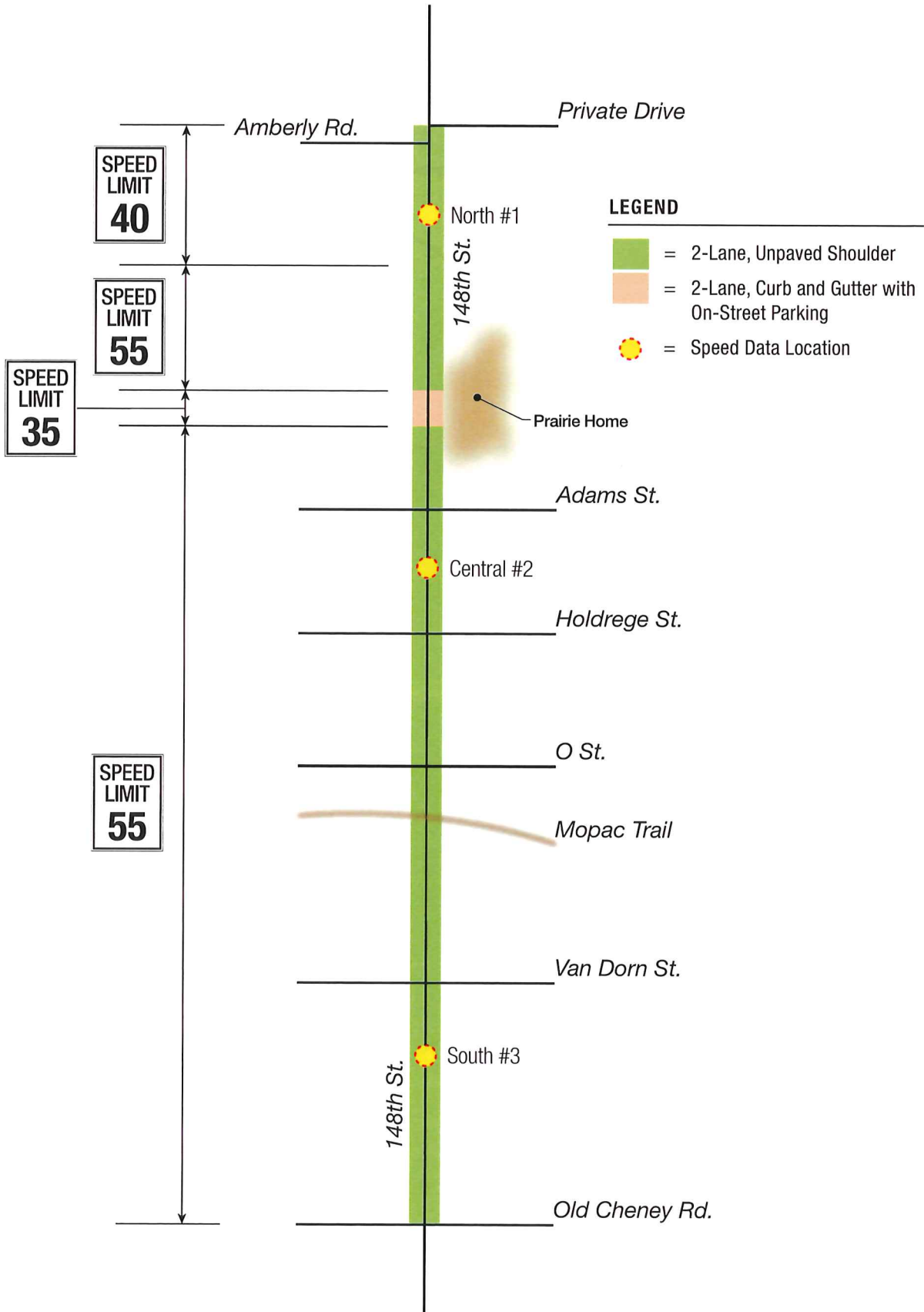
[www.sarpy.com/attorney/manny](http://www.sarpy.com/attorney/manny)



<b>Property Tax:</b>	Budget <u>FY19-20</u>	Budget <u>FY18-19</u>	Budget <u>FY17-18</u>	Budget <u>FY16-17</u>	Budget <u>FY15-16</u>	Budget <u>FY14-15</u>
County Engineer Engineer - GIS	4,300,892.00	4,178,107.00	4,166,669.00	3,897,511.00	4,127,804.00	3,981,077.00
Bridge and Road Fund		5,234,067.00	6,049,438.00	6,585,671.00	4,467,672.00	6,246,436.00
Highway Fund		<u>5,613,387.00</u>	<u>4,411,741.00</u>	<u>2,875,508.00</u>	<u>3,872,265.00</u>	<u>-</u>
TOTAL		15,025,561.00	14,627,848.00	13,358,690.00	12,467,741.00	10,227,513.00
		<b>397,713.00</b>	<b>1,269,158.00</b>	<b>890,949.00</b>	<b>2,240,228.00</b>	<b>(69,726.00)</b>
		2.72%	9.50%	7.15%	21.90%	-0.68%
<b>Expenditure Budget:</b>						
County Engineer Engineer - GIS	4,300,892.00	4,178,107.00	4,166,669.00	3,897,511.00	4,127,804.00	3,981,077.00
Bridge and Road Fund	14,646,868.00	8,949,489.00	6,282,183.00	14,054,159.00	10,259,916.00	10,118,511.00
Highway Fund	<u>20,023,053.00</u>	<u>16,617,603.00</u>	<u>14,093,804.00</u>	<u>15,420,789.00</u>	<u>12,458,352.00</u>	<u>8,200,508.00</u>
TOTAL	38,970,813.00	29,745,199.00	24,542,656.00	33,372,459.00	26,846,072.00	22,300,096.00
		5,202,543.00	(8,829,803.00)	6,526,387.00	4,545,976.00	1,532,456.00
		21.20%	-26.46%	24.31%	20.39%	7.38%
<b>Actual Expenditures:</b>						
County Engineer Engineer - GIS		3,888,938.52	4,009,440.36	3,795,626.36	4,023,757.49	3,900,289.93
Bridge and Road Fund		8,483,404.46	5,794,082.80	9,469,022.42	8,341,611.18	5,552,865.80
Highway Fund		<u>16,291,210.95</u>	<u>13,088,441.52</u>	<u>13,302,754.21</u>	<u>11,368,158.66</u>	<u>7,934,397.29</u>
TOTAL		28,663,553.93	22,891,964.68	26,567,402.99	23,733,527.33	17,387,553.02
Under budget Percentage spent		1,081,645.07	1,650,691.32	6,805,056.01	3,112,544.67	4,912,542.98
		96.36%	93.27%	79.61%	88.41%	77.97%







# 148<sup>th</sup> Street Operations and Safety Study

07/18/19



## Speed Study

A speed study was completed at three locations and the results are shown in **Table I**.

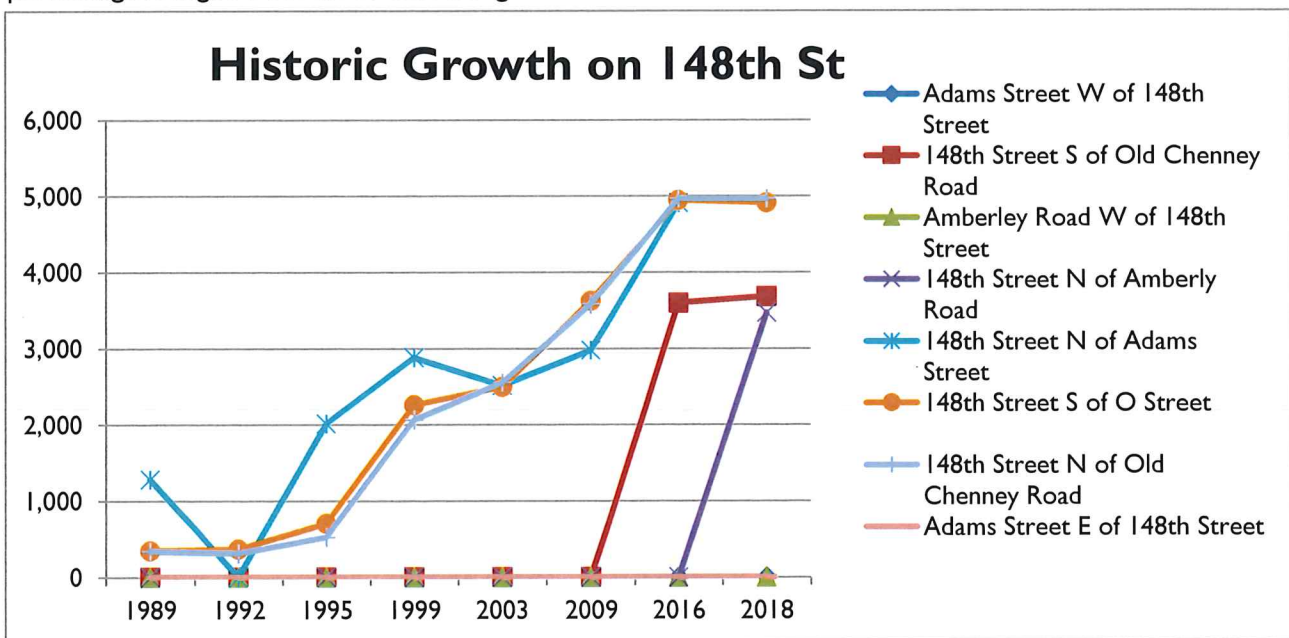
**Table I. 85<sup>th</sup> Percentile & Median Speed**

Roadway	Location	85 <sup>th</sup> Percentile Speed (mph)		Median Speed (mph)	
		NB	SB	NB	SB
148 <sup>th</sup> Street	North #1	70.82	57.39	55.48	53.69
148 <sup>th</sup> Street	Central #2	68.81	72.89	59.73	60.26
148 <sup>th</sup> Street	South #3	61.67	59.04	53.75	56.27
Directional Average		70.35	67.10	63.11	56.32
Overall Roadway Average		65.10		57.14	

Recommendations are to keep the posted speed limit (55 mph) but provided additional speed limits signs along the corridor.

## Historic Growth

Average annual growth rate along 148<sup>th</sup> Street in the study area was approximately 4.5%. Heavy vehicle percentages ranged from 8% to 12% along the corridor.



## The Operations Problem...

Currently, ADT's on 148<sup>th</sup> Street range from 5,850 in the north to 4,960 in the south. In 2040, it is estimated the ADT's will grow and range from 15,410 in the north to 13,065 in the south. Existing and future ADT volumes for the corridor are shown in **Table 2**. The LOS C threshold, per the Lincoln - Lancaster County Planning Department, for a 2-lane surfaced street without turn lanes is of 6,000 ADT.

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# 148<sup>th</sup> Street Operations and Safety Study

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With turn lanes added the capacity jumps to 14,000 ADT. If the roadway is widened to a 4-lane street with turn lanes included the capacity increases to 24,000.

**Table 2. Roadway Capacity**

Roadway Segment		Facility Type	Threshold ADT (LOS C)	2018 Existing ADT	2040 Future ADT
148 <sup>th</sup> Street	Amberly Road – O Street	2-lane surfaced street, without turn lanes	6,000	5,850	15,410
		2-lane surfaced street, with turn lanes	14,000	5,850	15,410
		4-lane surfaced street, with turn lanes	24,000	5,850	15,410
	O Street – Old Cheney Road	2-lane surfaced street, without turn lanes	6,000	4,960	13,065
		2-lane surfaced street, with turn lanes	14,000	4,960	13,065

An auxiliary turn lane analysis was completed for the major study area intersections and the results are shown in **Table 3**.

**Table 3. Auxiliary Turn Lane Analysis Summary**

Intersection	Warrant	2018 Existing		2040 Future	
		AM Peak	PM Peak	AM Peak	PM Peak
148th Street & Old Cheney Road	NB Left-Turn Lane	NO	NO	YES	YES
	NB Right-Turn Lane	NO	NO	NO	NO
	EB Approach	One Lane	One Lane	Two Lanes	Two Lanes
	SB Left-Turn Lane	NO	NO	YES	YES
	SB Right-Turn Lane	YES	YES	YES	YES
	WB Approach	One Lane	One Lane	One Lane	One Lane
148th Street & Adams St	NB Left-Turn Lane	YES	NO	YES	YES
	NB Right-Turn Lane	NO	NO	NO	NO
	EB Approach	One Lane	One Lane	One Lane	One Lane
	SB Left-Turn Lane	NO	NO	YES	YES
	SB Right-Turn Lane	YES	YES	YES	YES
	WB Approach	One Lane	One Lane	One Lane	One Lane
148th Street & Amberly Road / Private Drive	NB Left-Turn Lane	Existing LT Lane	Existing LT Lane	Existing LT Lane	Existing LT Lane
	NB Right-Turn Lane	NO	NO	NO	NO
	EB Approach	One Lane	One Lane	Two Lanes	Two Lanes
	SB Left-Turn Lane	NO	NO	NO	NO
	SB Right-Turn Lane	NO	NO	YES	YES
	WB Approach	NO	NO	NO	NO

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# 148<sup>th</sup> Street Operations and Safety Study

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MUTCD traffic signal warrant analysis was completed for the major study area intersections and the results are shown in **Table 4**.

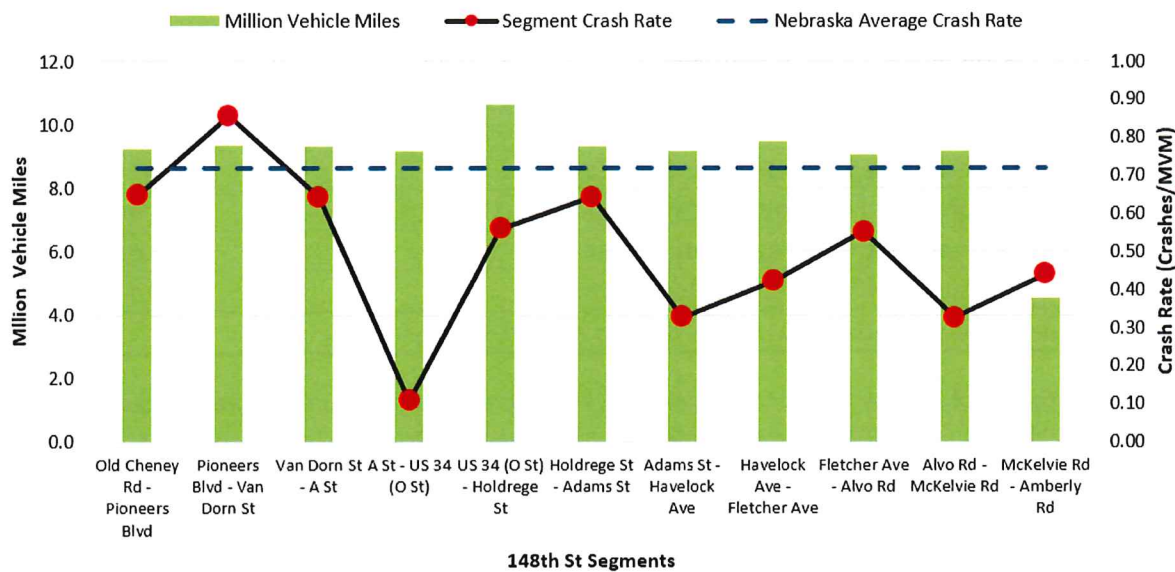
**Table 4. Traffic Control Device Warrant Summary**

Intersection	MUTCD Warrant	Is Warrant Met?	
		2018 Existing	2040 Future
148th & Amberly Road	Warrant 1	NO	NO (0% EB rights)
	Warrant 2	NO	YES (0% EB rights)
148th & Adams Street	Warrant 1	NO	YES
	Warrant 2	NO	YES
148th Street & Old Cheney Road	Warrant 1	NO	YES
	Warrant 2	NO	YES

## The Safety Problem...

The crash history for the period of 1/1/2013 to 2/28/2018 was examined between Old Cheney Road and Amberly Road (including intersections) to locate crash patterns and identify crash causality. Over the 5-year 2-month analysis period 50 crashes occurred in segments along with another 35 at the intersections for a total of 85 accidents. **Figure A** and **Figure B** display the crash rates for roadway segments and intersections along 148<sup>th</sup> Street compared to the Nebraska statewide average crash rates.

**Figure A. 148<sup>th</sup> Street Segment Crash Rate Summary**



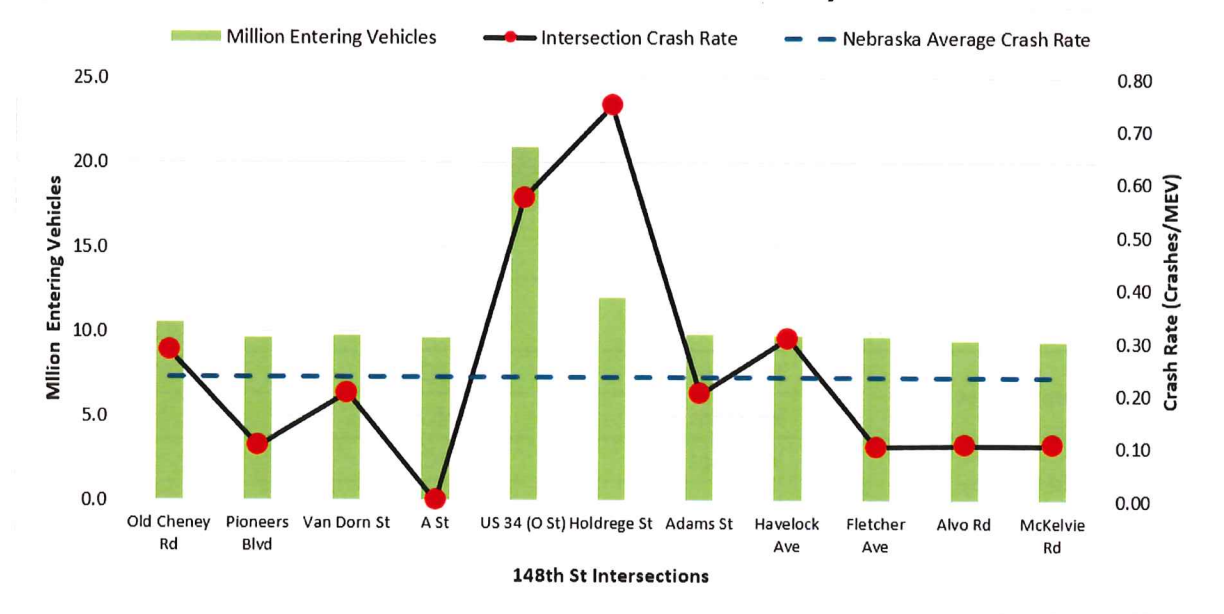
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# I 48<sup>th</sup> Street Operations and Safety Study

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**Figure B. I 48<sup>th</sup> Street Intersection Crash Rate Summary**



## Safety Countermeasures

Table 5 summarizes the B/C results for the proposed safety countermeasures.

**Table 5. Summary of Benefit-Cost Calculation by Crash Type**

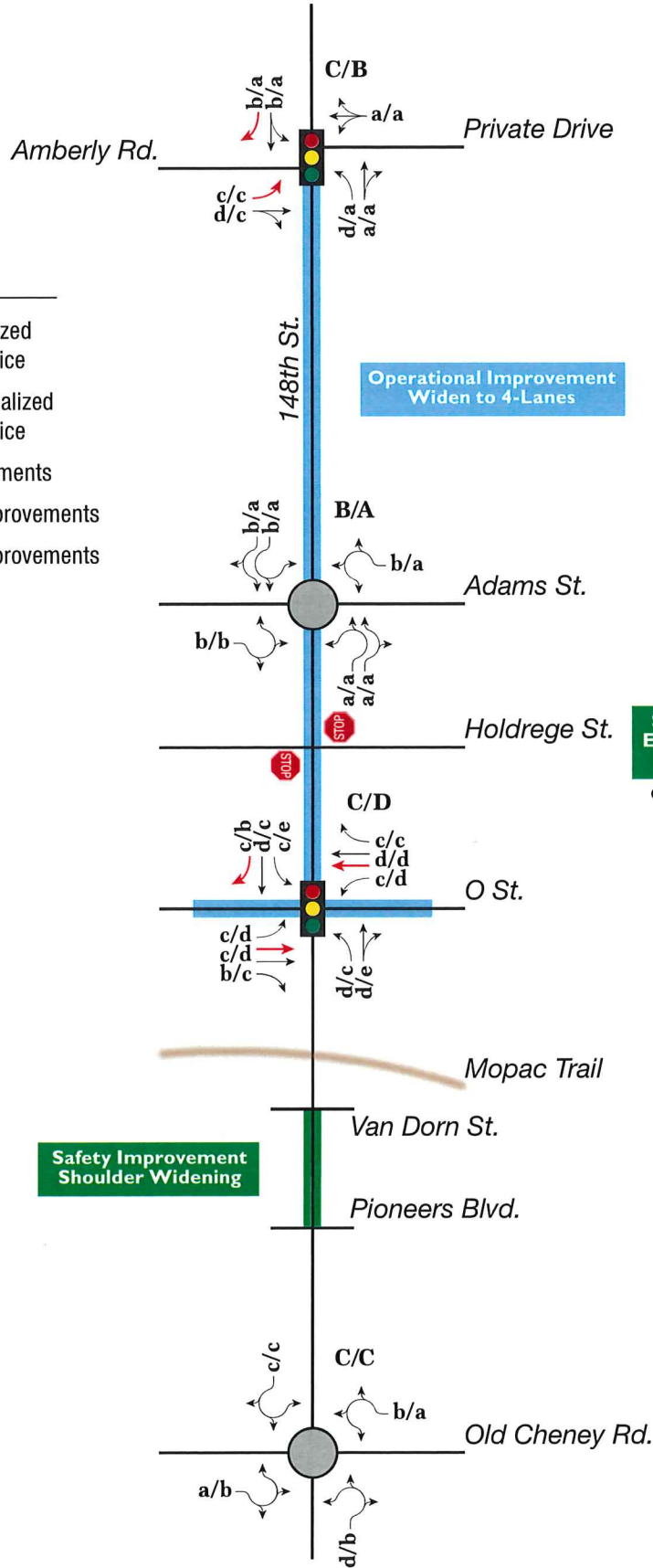
Countermeasure	Benefit/Cost Ratio
Pioneers Boulevard to Van Dorn Street: Construct 6' Paved Shoulders & Roadside Rumble Strips	2.36
Holdrege Street: Enhanced Intersection Signage	54.06
*O Street to Hooper Road: Widening and Overlay with Rumble Strips & Safety Edge Improvements	6.11
*Holdrege Street: Installation of Left-turn Lanes on I 48 <sup>th</sup> Street	7.14
*Holdrege Street: Roundabout at I 48 <sup>th</sup> Street and Holdrege	1.40
*Adam Street: Installation of Left-turn Lanes on I 48 <sup>th</sup> Street	1.60
*Adams Street: Roundabout at I 48 <sup>th</sup> Street with Adams Street	0.47
* Improvement analyzed with additional Crash Data to April 4, 2019	

With the recent paving of Adams Street to the west of I 48<sup>th</sup> Street traffic volumes have increased significantly. A predictive crash analysis was completed, and it was determined the crashes would more than double at this intersection if no improvements are made. It is recommended that as a preventative countermeasure, turn-lanes be added on I 48<sup>th</sup> Street at Adams Street. With this improvement, it is recommended it be graded and ROW purchased to accommodate a future roundabout.

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**LEGEND**

- X/X = AM/PM Peak Hour Signalized Intersection Level of Service
- x/x = AM/PM Peak Hour Unsignalized Intersection Level of Service
- = Proposed Safety Improvements
- ↗ = Proposed Operational Improvements
- = Proposed Operational Improvements Widen to 4-Lanes
- ⊙ = Roundabout
- STOP = Stop Sign
- 🚦 = Traffic Signal



**2040 Future Operations  
with Roundabout**

**FIGURE 6**



# 148<sup>th</sup> Street Operations and Safety Study

07/18/19



## Systemic Improvements

According to the Federal Highway Administration (FHWA), systemic improvements focus on high-risk roadway features rather than specific locations. This leads to widespread implementation of projects to reduce the potential for severe crashes. Due to the significant number of run off the road crashes and high truck percentages, it is recommended that 148<sup>th</sup> Street in the study area be widened to a 28' top with earth shoulders should the road ever need to be repaved due to pavement conditions.

It is also recommended that educational programs like Drive Smart Nebraska be implemented at area high schools. These types of programs are committed to eliminating injuries and deaths on Nebraska roads.

## The Cost...

Cost estimates were prepared for the operational, safety, and systemic improvements. Summaries are provided below for each improvement. All cost estimates were completed using 2018 unit costs.

### Safety Improvements

Improvement	2018 Cost
148th St – Van Dorn Rd to Pioneers Blvd – Shoulders	\$ 1,223,530.00
148th St and Holdrege St – Enhanced Intersection Signage	\$ 5,000.00
*148th St – O St to Hooper Rd – Widening and Overlay with Rumble Strips & Safety Edge Improvements	\$ 1,579,900.00
*Installation of Left-turn Lanes on 148 <sup>th</sup> Street at Holdrege Street	\$ 500,000.00
*Roundabout at 148 <sup>th</sup> Street with Holdrege Street	\$ 3,800,000.00
*Installation of Left-turn Lanes on 148 <sup>th</sup> Street at Adam Street	\$ 361,110.00
*Roundabout at 148 <sup>th</sup> Street with Adams Street	\$ 1,800,000.00
* Improvement added as part of supplemental analysis	

### Operational Improvements

Improvement	2018 Cost
148th St - O St. to Amberly Rd Widening to 4 Lanes	\$ 28,939,380.00
O St - 98th St to 148th St Widening to 4 Lanes	\$ 14,619,390.00
148th St and Amberly Rd – SB Right Turn Lane	\$ 126,070.00
148th St and Amberly Rd – Eastbound 2-Lane Approach	\$ 313,710.00
148th St and Amberly Rd – Traffic Signal	\$ 176,500.00
148th St and Amberly Rd – Roundabout	\$ 791,350.00
148th St and Adams St – Roundabout	\$ 764,470.00
148th St and O St – SB Right Turn Lane	\$ 141,450.00
148th St and Old Cheney Rd – Roundabout	\$ 825,490.00

### Systemic Improvements

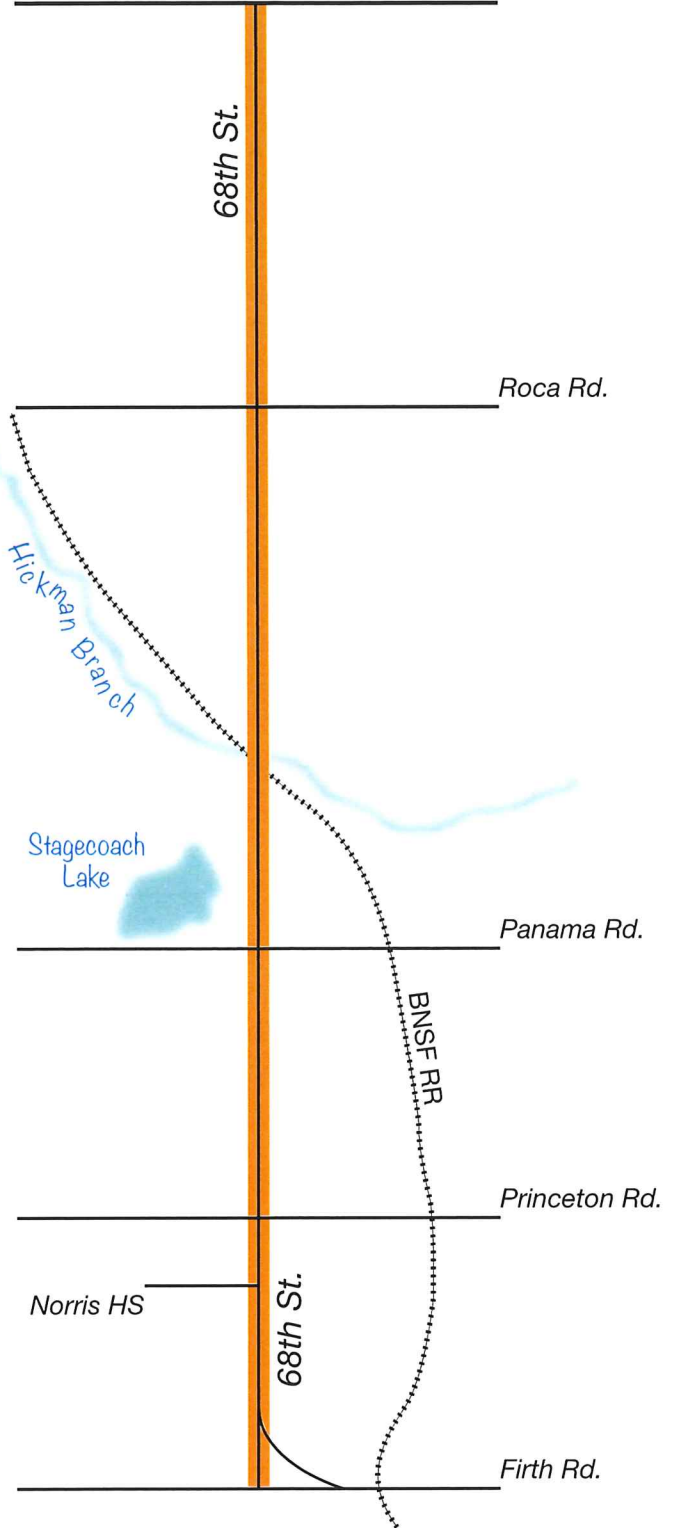
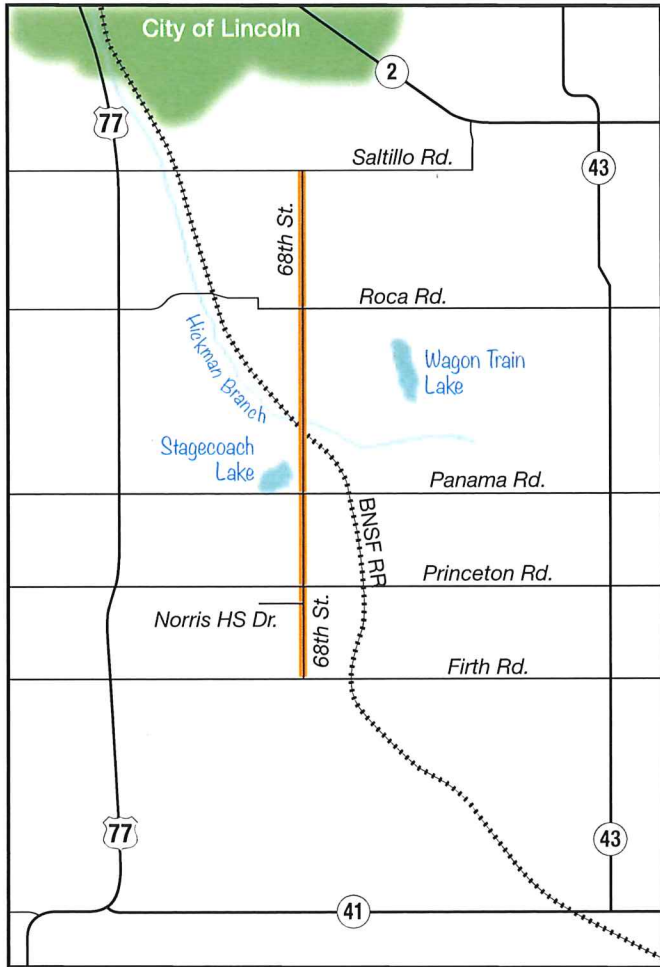
Improvement	2018 Cost
148th St – 28' top with earth shoulders and rumble strips	\$ 9,545,200.00

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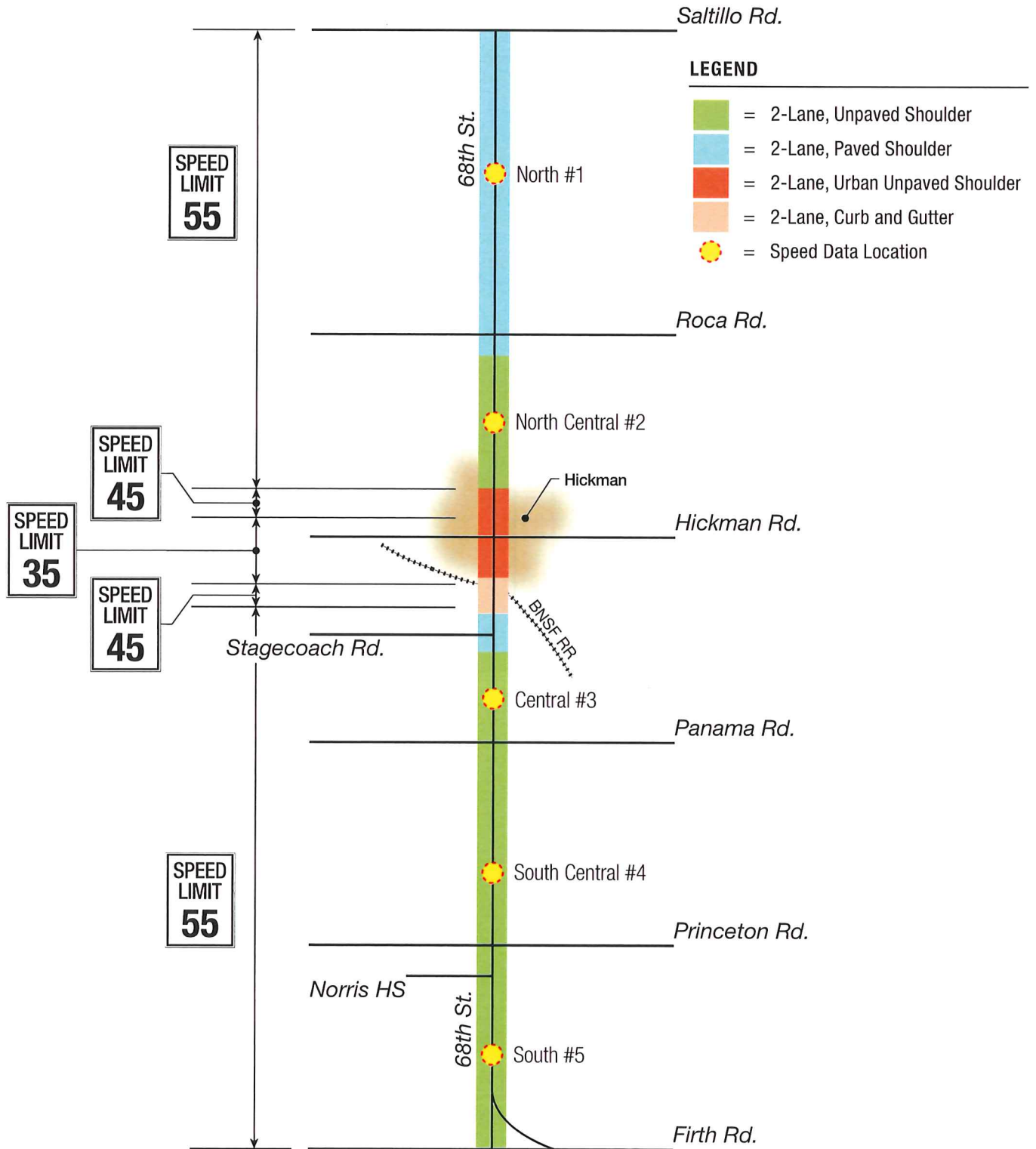
Study Corridor

Saltillo Rd.

Vicinity Map



Study Area | FIGURE 1





# S. 68<sup>th</sup> Street Operations and Safety Study

07/18/19



## Speed Study

A speed study was completed at five locations and the results are shown in **Table 1**.

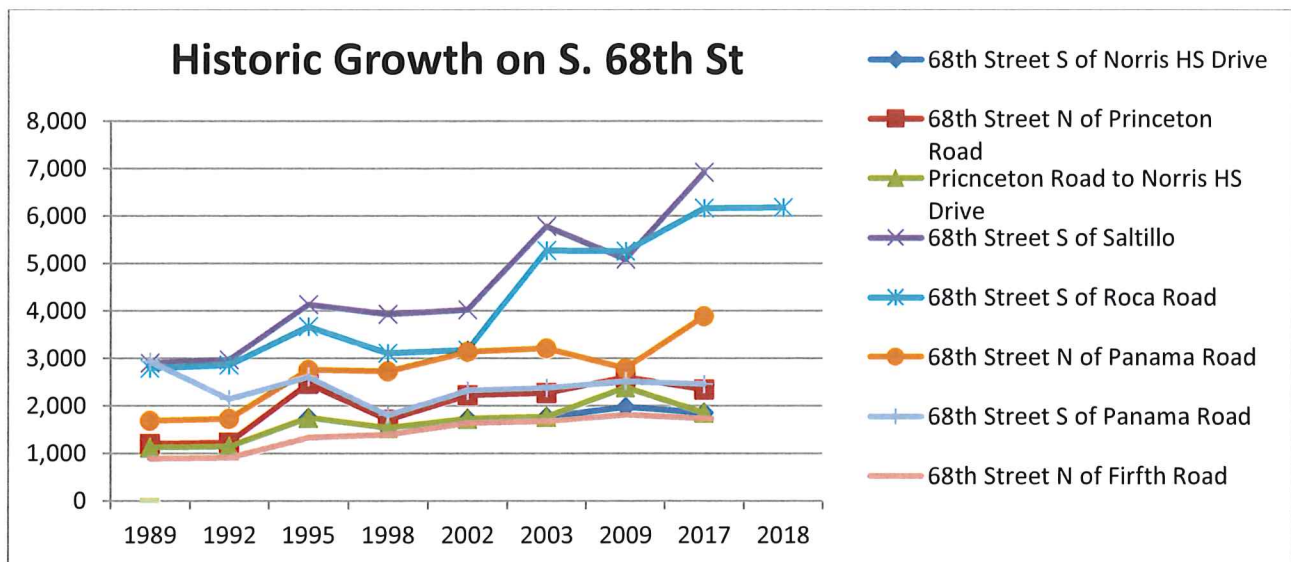
**Table 1. 85<sup>th</sup> Percentile & Median Speed**

Roadway	Location	85 <sup>th</sup> Percentile Speed (mph)		Median Speed (mph)	
		NB	SB	NB	SB
S. 68th Street	North #1	66.95	65.65	58.39	48.93
S. 68th Street	North Central #2	59.09	59.50	53.91	56.00
S. 68th Street	Central #3	54.60	66.90	52.00	54.55
S. 68th Street	South Central #4	69.72	66.16	55.18	48.68
S. 68th Street	South #5	62.01	61.60	59.37	54.14
Directional Average		62.47	63.91	55.77	52.46
Overall Roadway Average		63.19		53.92	

Recommendations are to keep the posted speed limit (55 mph) but provided additional speed limits signs along the corridor.

## Historic Growth

Average annual growth rate along S. 68<sup>th</sup> Street in the study area was approximately 2.5%. Heavy vehicle percentages ranged from 2% to 3% along the corridor.



## The Operations Problem...

Currently, ADT's on S. 68<sup>th</sup> Street range from 6,600 in the north to 6,175 in the south. In 2040, it is estimated the ADT's will grow and range from 11,360 in the north to 10,630 in the south. Existing and future ADT volumes for the corridor are shown in **Table 2**. The LOS C threshold, per the Lincoln - Lancaster County Planning Department, for a 2-lane surfaced street without turn lanes is of 6,000 ADT. Will turn lanes added the capacity jumps to 14,000 ADT.

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**Table 2. Roadway Capacity**

Roadway Segment		Facility Type	Threshold ADT (LOS C)	2018 Existing ADT	2040 Future ADT
S. 68 <sup>th</sup> Street	Saltillo Road – Roca Road	2-lane surfaced street, without turn lanes	6,000	6,600	11,360
		2-lane surfaced street, with turn lanes	14,000	6,600	11,360
	Roca Road – Firth Road	2-lane surfaced street, without turn lanes	6,000	6,175	10,630
		2-lane surfaced street, with turn lanes	14,000	6,175	10,630

An auxiliary turn lane analysis was completed for the major study area intersections and the results are shown in **Table 3**.

**Table 3. Auxiliary Turn Lane Analysis Summary**

Intersection	Warrant	2018 Existing		2040 Future	
		AM Peak	PM Peak	AM Peak	PM Peak
Saltillo Road & S. 68 <sup>th</sup> Street	EB Right-Turn Lane	Existing RT Lane	Existing RT Lane	Existing RT Lane	Existing RT Lane
	NB Approach	Existing Two Lane	Existing Two Lane	Existing Two Lane	Existing Two Lane
	WB Left-Turn Lane	Existing LT Lane	Existing LT Lane	Existing LT Lane	Existing LT Lane
S. 68 <sup>th</sup> Street & Roca Road	NB Left-Turn Lane	Existing LT Lane	Existing LT Lane	Existing LT Lane	Existing LT Lane
	NB Right-Turn Lane	NO	NO	YES	YES
	EB Approach	Existing Two Lane	Existing Two Lane	Existing Two Lane	Existing Two Lane
	SB Left-Turn Lane	Existing LT Lane	Existing LT Lane	Existing LT Lane	Existing LT Lane
	SB Right-Turn Lane	NO	NO	NO	NO
	WB Approach	Existing Two Lane	Existing Two Lane	Existing Two Lane	Existing Two Lane
S. 68 <sup>th</sup> Street & Panama Road	NB Left-Turn Lane	Existing LT Lane	Existing LT Lane	Existing LT Lane	Existing LT Lane
	NB Right-Turn Lane	NO	YES	YES	YES
	EB Approach	Existing Two Lane	Existing Two Lane	Existing Two Lane	Existing Two Lane
	SB Left-Turn Lane	Existing LT Lane	Existing LT Lane	Existing LT Lane	Existing LT Lane
	SB Right-Turn Lane	NO	NO	NO	NO
	WB Approach	Existing Two Lane	Existing Two Lane	Existing Two Lane	Existing Two Lane

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S. 68 <sup>th</sup> Street & Princeton Road	NB Left-Turn Lane	NO	NO	YES	YES
	NB Right-Turn Lane	NO	NO	NO	NO
	EB Approach	One Lane	One Lane	One Lane	One Lane
	SB Left-Turn Lane	NO	NO	NO	NO
	SB Right-Turn Lane	YES	NO	YES	YES
	WB Approach	One Lane	One Lane	One Lane	One Lane
S. 68 <sup>th</sup> Street & Norris High School	NB Left-Turn Lane	Existing LT Lane	Existing LT Lane	Existing LT Lane	Existing LT Lane
	EB Approach	One Lane	One Lane	Two Lanes	Two Lanes
	SB Right-Turn Lane	Existing RT Lane	Existing RT Lane	Existing RT Lane	Existing RT Lane
S. 68 <sup>th</sup> Street & Firth Road	EB Left-Turn Lane	NO	NO	NO	NO
	WB Right-Turn Lane	Existing RT Lane	Existing RT Lane	Existing RT Lane	Existing RT Lane
	SB Approach	One Lane	One Lane	One Lane	One Lane

MUTCD traffic signal warrant analysis was completed for the major study area intersections and the results are shown in **Table 4**.

**Table 4. Traffic Control Device Warrant Summary**

Intersection	MUTCD Warrant	Is Warrant Met?	
		2018 Existing	2040 Future
S. 68th & Saltillo Road	Warrant 1	YES	YES
	Warrant 2	YES	YES
S. 68th Street & Roca Road	Warrant 1	NO	YES
	Warrant 2	NO	YES
S. 68th Street & Panama Road	Warrant 1	NO	NO (0% WB rights)
	Warrant 2	NO	NO (0% WB rights)
S. 68th Street & Princeton Road	Warrant 1	NO	YES
	Warrant 2	NO	YES
S. 68th Street & Norris High School	Warrant 1	NO	YES
	Warrant 2	NO	YES
S. 68th Street & Firth Road	Warrant 1	NO (0% WB rights)	NO (0% WB rights)
	Warrant 2	NO (0% WB rights)	NO (0% WB rights)

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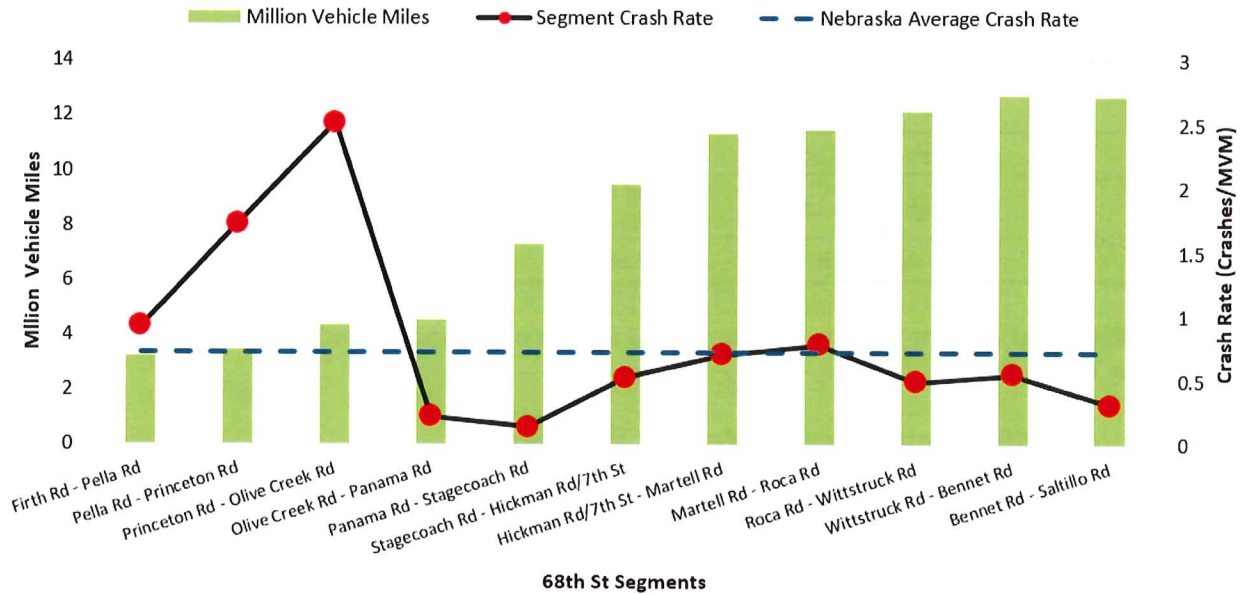
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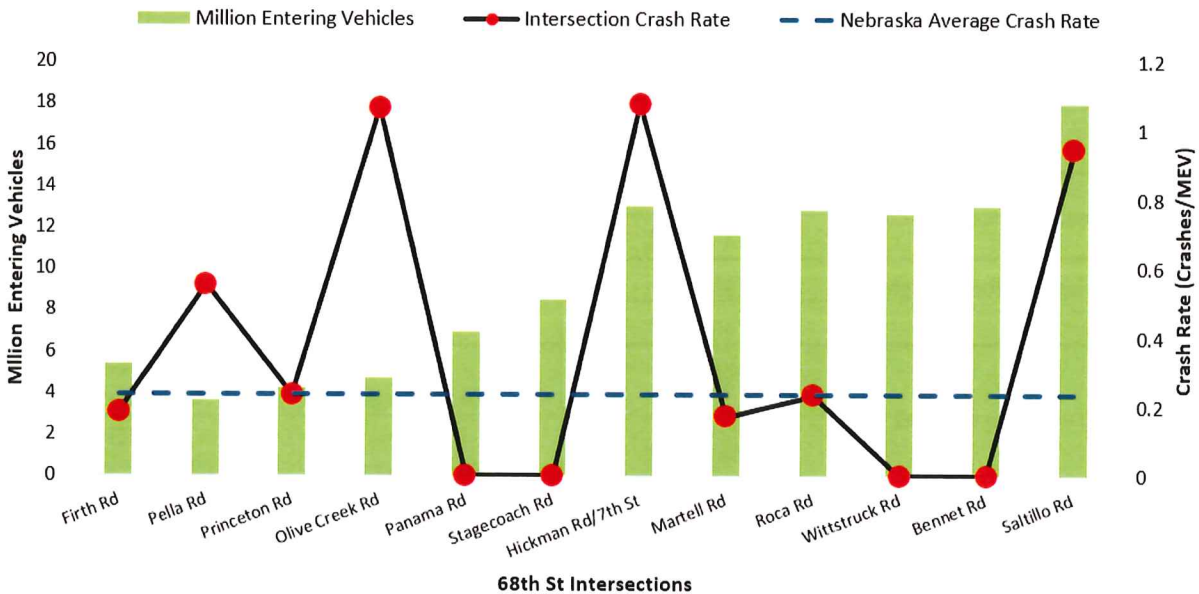
## The Safety Problem...

The crash history for the period of 1/1/2013 to 2/28/2018 was examined between Firth Road and Saltillo Road (including intersections) to locate crash patterns and identify crash causality. Over the 5-year 2-month analysis period 61 crashes occurred in segments along with another 50 at the intersections for a total of 111 accidents. **Figure A** and **Figure B** display the crash rates for roadway segments and intersections along S. 68th Street compared to the Nebraska statewide average crash rates.

**Figure A. S. 68<sup>th</sup> Street Segment Crash Rate Summary**









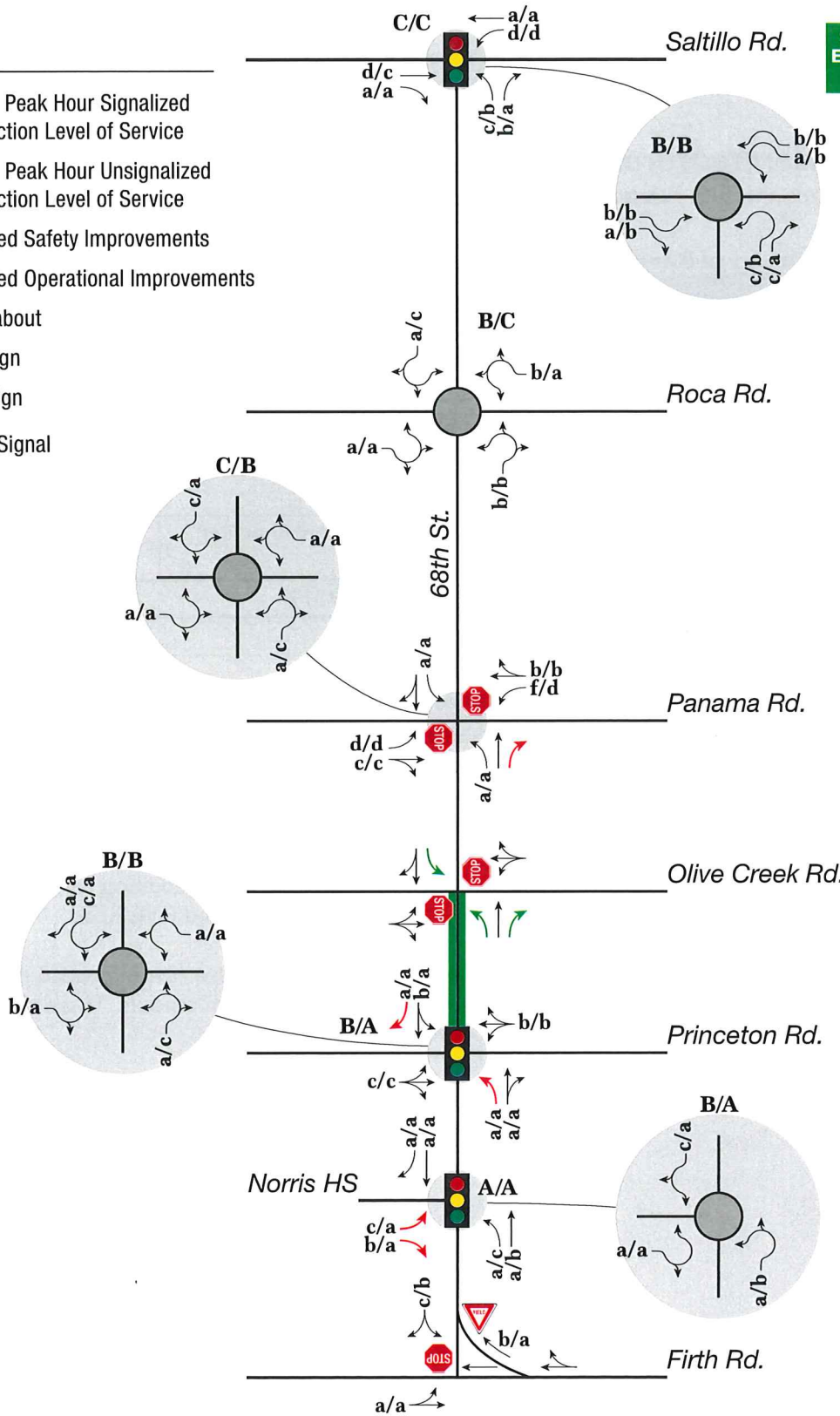
**Figure B. S. 68<sup>th</sup> Street Intersection Crash Rate Summary**



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**LEGEND**

- X/X = AM/PM Peak Hour Signalized Intersection Level of Service
- x/x = AM/PM Peak Hour Unsignalized Intersection Level of Service
-  = Proposed Safety Improvements
-  = Proposed Operational Improvements
-  = Roundabout
-  = Stop Sign
-  = Yield Sign
-  = Traffic Signal



**Safety Improvement  
Enhanced Intersection  
Signage**

**Safety Improvement  
Shoulder Widening  
and Turn Lanes**  
Operational Analysis  
Not Completed





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## Safety Countermeasures

Table 5 summarizes the B/C results for the proposed safety countermeasures.

**Table 5. Summary of Benefit-Cost Calculation by Crash Type**

Countermeasure	Benefit/Cost Ratio
Saltillo Road Enhanced Intersection Signage	216.22
Construct Shoulder Princeton Road – Olive Creek Road, Turn Lanes on Both Approaches at Olive Creek Road	1.40
<i>*Construct a roundabout at S 68<sup>th</sup> Street and Roca Road*</i>	1.62
<i>*Princeton Road to Olive Creek Road – Widening, Overlay, and Left-turn Lanes Improvement*</i>	9.89
<i>*Roca Road to Hickman Road – Addition of Shoulder Pavement &amp; Shoulder Rumble Strips Improvement*</i>	2.97
<i>* Improvement analyzed with additional Crash Data to April 4, 2019</i>	

## Systemic Improvements

According to the Federal Highway Administration (FHWA), “systemic” improvements focus on high-risk most serious crash types on the entire road system, not just at specific high-spot locations. This leads to widespread implementation of projects to reduce the potential for severe crashes. Due to the number of run off the road crashes, it is recommended that S. 68<sup>th</sup> Street in the study area be widened to a 28’ top with rumble strips along the edge of the road and 4’ turf shoulders should the road ever need to be repaved due to pavement conditions. It is further recommended that separate left turn lanes be included in S. 68<sup>th</sup> Street paving at all county road intersections where none exist today. In addition to Olive Creek Road, this would include the intersections of Martell Road, Princeton Road, and Pella Road.

Due the number of crashes involving student drivers on S. 68<sup>th</sup> Street, it is also recommended that educational programs like Drive Smart Nebraska be implemented at area high schools. These types of programs are committed to eliminating injuries and deaths on Nebraska roads.

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## The Cost...

Cost estimates were prepared for the operational, safety, and systemic improvements. Summaries are provided below for each improvement. All cost estimates were completed using 2018 unit costs.

### Safety Improvements

Improvement	2018 Cost
S. 68th St and Saltillo Rd – Enhanced Intersection Signage	\$ 5,000.00
S. 68th St and Olive Creek Rd – NB Left and Right Turn Lanes	\$ 235,980.00
S. 68th St and Olive Creek Rd – SB Left Turn Lane	\$ 133,760.00
S. 68th St - Olive Creek Rd to Princeton Rd – Shoulders	\$ 1,164,390.00
<i>Construct a roundabout at S 68<sup>th</sup> Street and Roca Road</i>	\$ 2,600,000.00
<i>Princeton Road to Olive Creek Road – Widening, Overlay, and Left-turn Lanes Improvement</i>	\$ 548,381.00
<i>Roca Road to Hickman Road – Addition of Shoulder Pavement &amp; Shoulder Rumble Strips Improvement</i>	\$ 3,941,850.00

\* Improvement added as part of supplemental analysis

### Operational Improvements

Improvement	2018 Cost
S. 68th St and Saltillo Rd – Traffic Signal	\$ 176,500.00
S. 68th St and Saltillo Rd – Roundabout	\$ 965,130.00
S. 68th St and Roca Rd – Roundabout	\$ 788,970.00
S. 68th St and Panama Rd – NB Right Turn Lane	\$ 130,210.00
S. 68th St and Panama Rd – Roundabout	\$ 719,940.00
S. 68th St and Princeton Rd – Turn Lanes	\$ 217,520.00
S. 68th St and Princeton Rd – Traffic Signal	\$ 176,500.00
S. 68th St and Princeton Rd – Roundabout	\$ 595,880.00
S. 68th St and Norris HS Dr – Eastbound 2-Lane Approach	\$ 111,040.00
S. 68th St and Norris HS Dr – Traffic Signal	\$ 176,500.00
S. 68th St and Norris HS Dr – Roundabout	\$ 615,370.00

### Systemic Improvements

Improvement	2018 Cost
S. 68th St – 28' top with earth shoulders and rumble strips	\$ 9,803,640.00

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