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# Corridor Access Management

Face to Face Solutions

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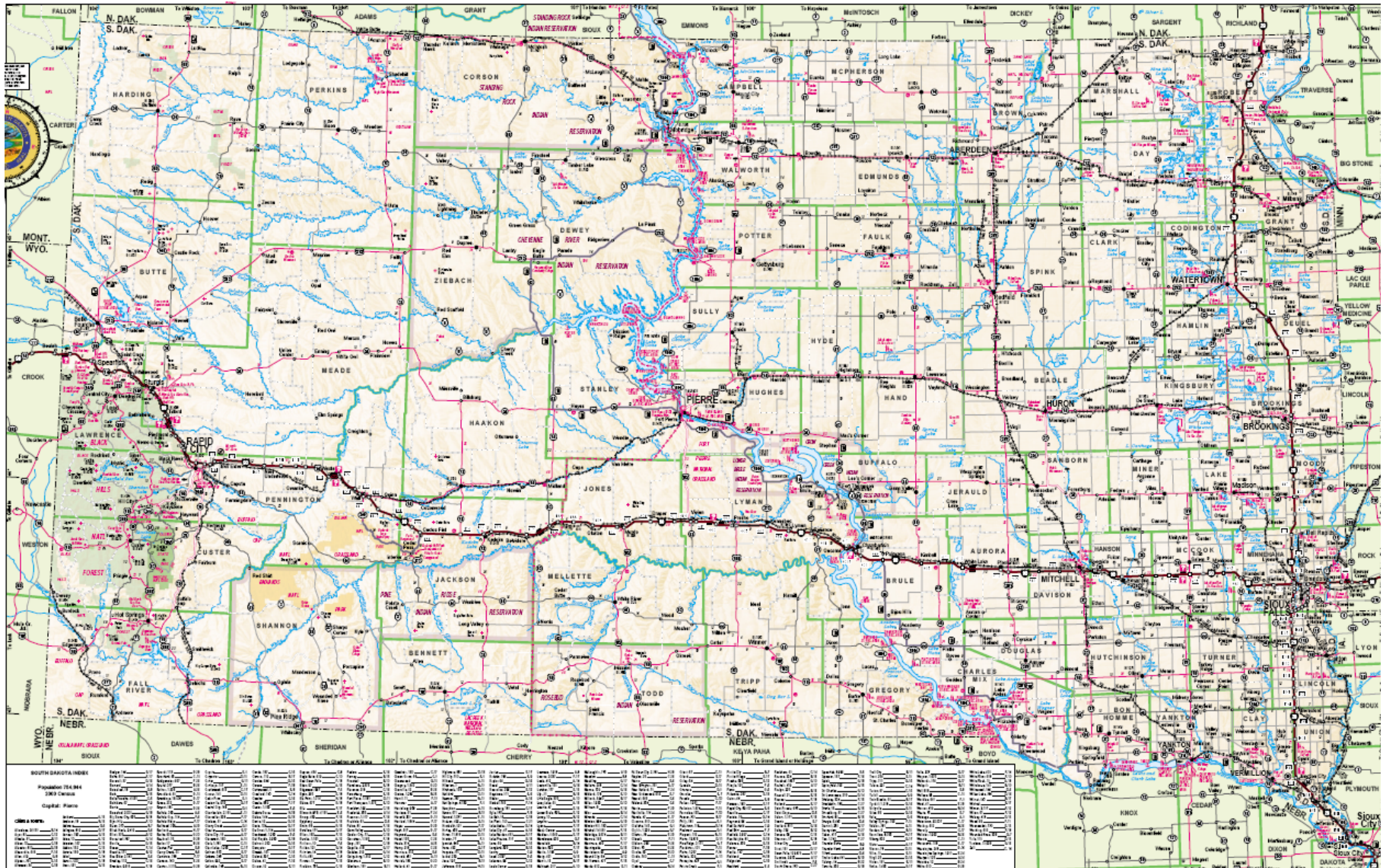
Bill Troe, URS Corp.

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# Issues

- Achieving access reduction in a retrofit situation
  - Dealing with landowner concerns and other public perceptions
  - Coordinating between governmental agencies
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# Orientation - State



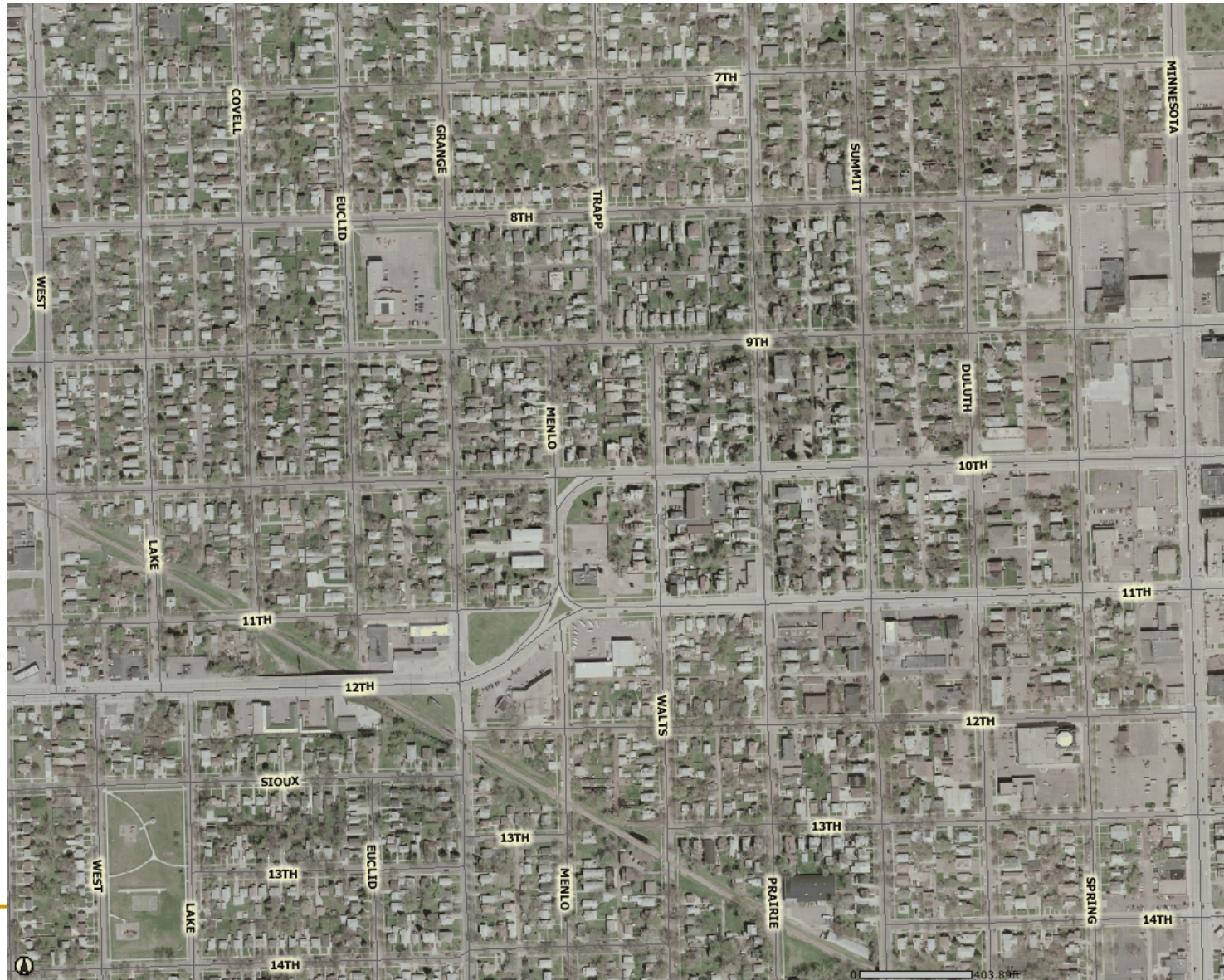


# Orientation - City





# Orientation - Corridor





# Orientation - Corridor





# Orientation - Corridor





# Orientation - Ground





# Orientation - Ground



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# West 12<sup>th</sup> Street Corridor Study

- Resurfacing
  - Access reduction
  - Spot capacity and safety improvements
  - Community amenities
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# West 12<sup>th</sup> Street Corridor Study

- Joint jurisdiction route – West 12<sup>th</sup> Street and South Dakota Highway 42
  - Study agencies – SDDOT, City of Sioux Falls, SECOG (MPO)
  - Joint funding and administration for study, City was contracting agency
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# West 12<sup>th</sup> Street Corridor Study

- Kick-off concerns about public reaction to access reduction
- Commitment to open study process



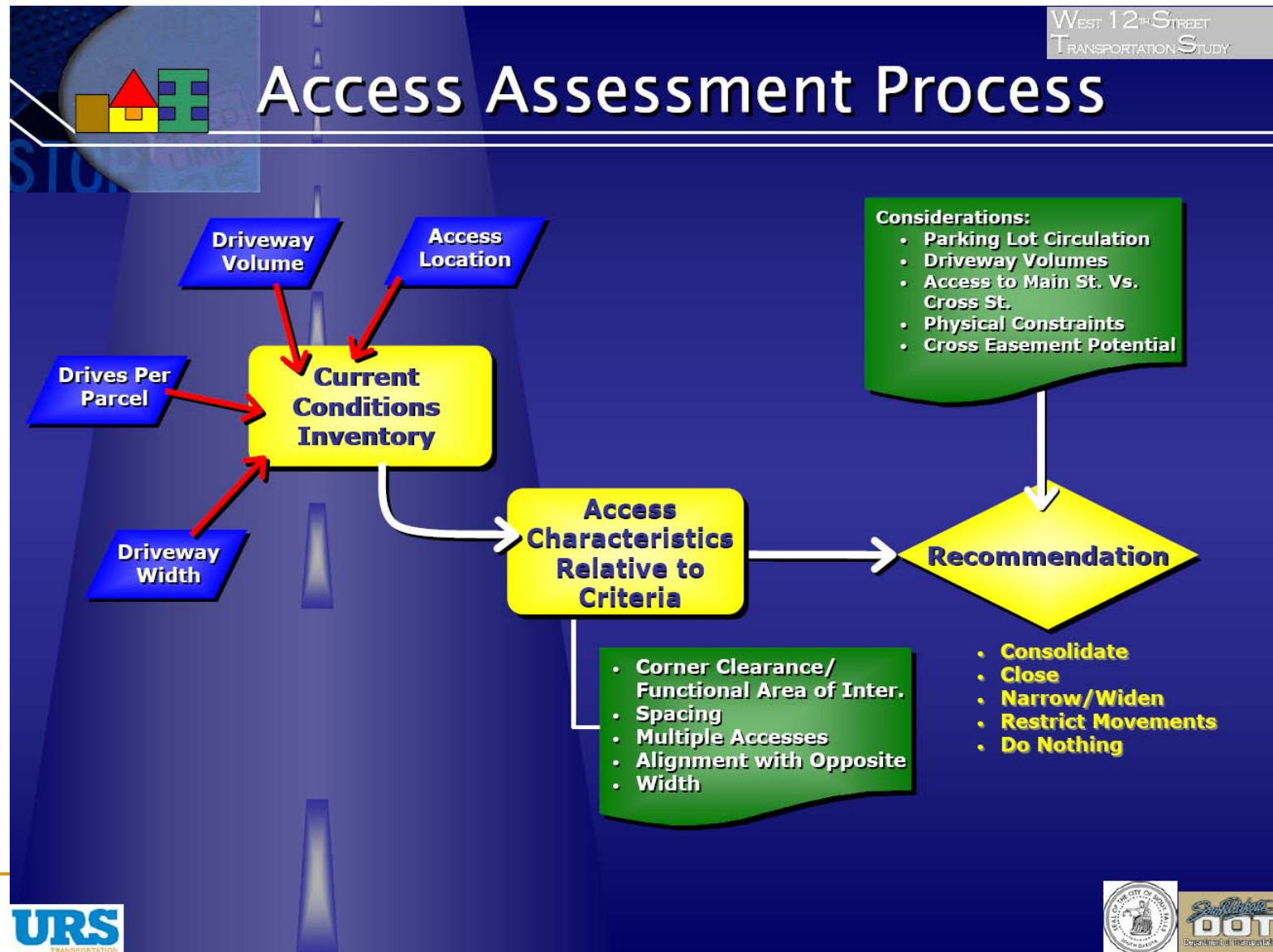


# Face to Face Public Involvement

1. “Issues” Meeting
2. “Concepts” Meeting
3. “One-on-one” Meeting
4. “Recommendations” Meeting



# Access-related Public Information





# Access-related Public Information

## References/Sources Used Throughout the Analysis

- City of Sioux Falls 2000 Major Street Plan
- SDCL 1-3-12.1: Legislation Empowering the DOT to Approve Access along State Routes
- State Administrative Rules, Section 70:09: Entails Guiding Additional Access

WEST 12<sup>TH</sup> STREET  
TRANSPORTATION STUDY

# Access-related Public Information

WEST 12<sup>TH</sup> STREET  
TRANSPORTATION STUDY

## Corner Clearance Conflicts (Functional Area of an Intersection)

**Conflicts Can Arise if Access Points/Driveways are Too Close to Intersections**

**Potential Conflicts:**

- Congestion/Traffic Flow Problems Due to Blocking Access
- Rearend Crashes

**Action:**

- Set Access Back from Intersection

The diagram illustrates the functional area of an intersection. The top portion shows a street intersection with a private access driveway located very close to the intersection. This proximity causes traffic flow problems and potential crashes, indicated by cloud-like symbols. The bottom portion shows the same intersection with the private access driveway moved back, resolving the conflict. Labels include 'STREET' and 'PRIVATE ACCESS'.

This diagram shows the recommended action: setting access back from the intersection. The private access driveway is moved back, and a red circle with a slash indicates that access should not be set too close to the intersection. Labels include 'PRIVATE ACCESS' and 'STREET'.

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Department of Transportation

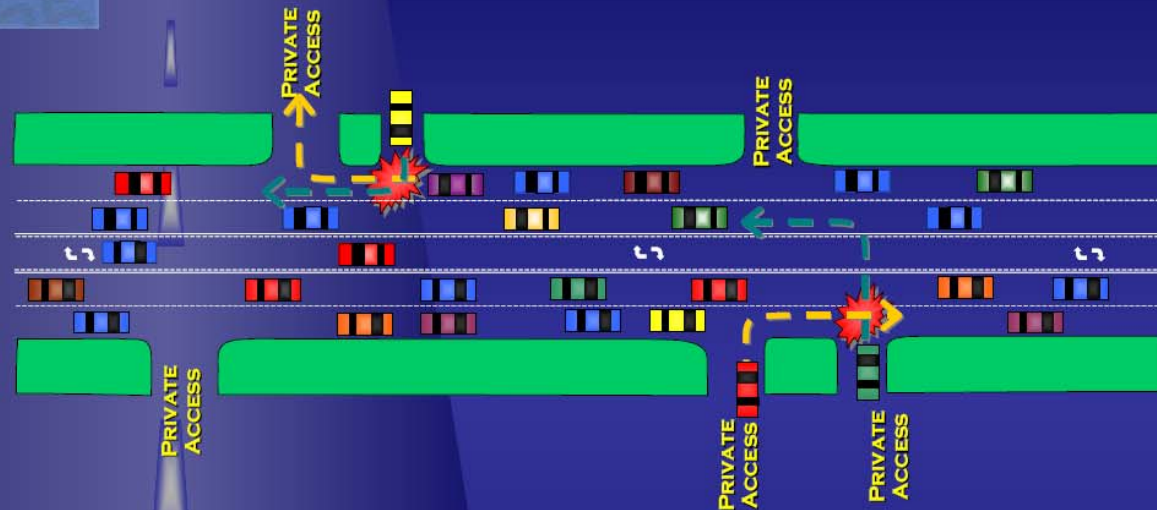
**DOT**  
Department of Transportation



# Access-related Public Information

WEST 12<sup>TH</sup> STREET  
TRANSPORTATION STUDY

## Multiple Parcel Access Conflicts



**Conflicts Can Arise as the Number of Access Points Grows**

### **Action:**

- **Consolidate Drives to Reduce Total Number**

### **Potential Conflicts:**

- **Right Angle Crashes**
- **Traffic Flow Problems due to Turning Vehicles**

# Access-related Public Information

WEST 12<sup>TH</sup> STREET  
TRANSPORTATION STUDY

## Offset Access Conflicts

**Conflicts Can Arise if Access Points/Driveways are Not Properly Aligned**

**Action:**

- **Align Drives Opposite Each Other**

**Potential Conflicts:**

- **Head on Crashes**
- **Right Angle Crashes**
- **Traffic Flow Problems due to Blocking Access**

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**DOT**  
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# Data Tools

## North Side of 11th Street

Street	Block	Block Face			Total Drives	Number of Parcels							Notes:
		West	South	East		C/O	R	HB	P	P/I	V	Total	
11th	Menlo to Walts	2	1	1	4	2						2	2 of the 3 11th Street drives are residential Majority of drives are residential All residential, 1 drive is actually an alley
11th	Walts to Prairie	1	3	1	5	2	3					5	
11th	Prairie to Summit	1	3	1	5		4	1				5	
11th	Summit to Duluth	0	1	0	1		4					4	
11th	Duluth to Spring	1	2	1	4	1	4		1			6	
11th	Spring to Minnesota	1	2	1	4	1				1		2	
Main/Side St Totals		6	12	5	23	6	15	1	1	1	0	24	
0.96 = Driveways/Parcel North side of 11th Street													

## South Side of 11th Street

Street	Block	Block Face			Total Drives	C/O	Number of Parcels						Notes:
		West	North	East			R	HB	P	P/I	V	Total	
11th	Menlo to Walts	1	2	2	5	2						2	Mostly residential driveways
11th	Walts to Prairie	1	4	1			6	1				7	
11th	Prairie to Summit	1	4	1	6	3						3	
11th	Summit to Duluth	2	3	1	6	3						3	
11th	Duluth to Spring	0	2	1	3		6					6	All residential driveways
11th	Spring to Minnesota	1	4	2	7	1	2	1				4	
Main/Side St Totals		6	19	8	33	9	14	2	0	0	0	25	
1.32 = Driveways/Parcel South side of 11th Street													
1.14 = Driveways/Parcel for All of 11th Street													

## North Side of 10th Street

Street	Block	Block Face			Total Drives	C/O	Number of Parcels						Total	Notes:
		West	South	East			R	HB	P	P/I	V			
Menlo	10th to 12th	N/A	N/A	4	4		5					5	All residential driveways	
10th	Menlo to Walts	1	3	0	4		6					6	All residential driveways	
10th	Walts to Prairie	1	3	0	4		5					5	All residential driveways	
10th	Prairie to Summit	1	1	0	2	1	3					4	10th St driveway is actually an alley	
10th	Summit to Duluth	2	5	0	7	1	2					3	Not sure how to classify 600 W. 10th?	
10th	Duluth to Spring	1	2	0	3	2						2		
10th	Spring to Minnesota	1	4	3	8	1			1			2		
Main/Side St Totals		7	18	7	32	5	21	0	1	0	0	27		
1.19 = Driveways/Parcel North side of 10th Street														

## South Side of 10th Street

Street	Block	Block Face			Total Drives	C/O	Number of Parcels							Notes:
		West	North	East			R	HB	P	P/I	V	Total		
10th	Menlo to Walts	0	2	1	3		3				1	4	One residential driveway on 10th Drive on Summit is residential	
10th	Walts to Prairie	2	1	0	3	2		1				3		
10th	Prairie to Summit	1	2	0	3	1	2					3		
10th	Summit to Duluth	1	3	1	5	1	3					4		
10th	Duluth to Spring	1	3	1	5	4						4		
10th	Spring to Minnesota	1	3	0	4				3			3		
Main/Side St Totals		6	14	3	23	8	8	1	3	0	1	21		
1.1 = Driveways/Parcel South side of 10th Street														
1.15 = Driveways/Parcel for All of 10th Street														

# Data Tools

Driveway Number	Driveway Street Access	Parcel Address	Business Name <sup>(a)</sup>	Business <sup>(b)</sup> Driveway Activity	Access Related Evaluation Criteria for Existing Driveways <sup>(c)</sup>					Multiple Access / Parcel	Access Alignment	Comments on Issues	Reco for A
					Corner Clearance	Access Spacing	Functional Int. Space	Access Width					
247	Duluth	523 W 10TH ST	Pizza Hut	High									
248	10th	521 W 10TH ST	Pizza Hut	High									
249	10th		Alley	Low									
250	10th	505 W 10TH ST	Attorney Office	Medium	X							3 access points / 10th St. block face	
251	Spring	505 W 10TH ST	Attorney Office	Medium	X							sleep driveway	
252	Spring	409 W 10TH ST	YMCA Parking Lot	Medium									
253	10th	409 W 10TH ST	YMCA Parking Lot	Medium		X							
254	10th	409 W 10TH ST	YMCA Parking Lot	Medium		X							
255	10th	201 S MINNESOTA AVE	Parking Lot	Medium		X							
256	Menlo	908 W 11TH ST	Dollar Loan Center	Low		X	X			X		4 access points for Dollar Loan Center	
257	Menlo	908 W 11TH ST	Dollar Loan Center	Low		X	X			X			
258	11th	908 W 11TH ST	Dollar Loan Center	Low						X			
259	Waits	908 W 11TH ST	Dollar Loan Center	Low	X					X			
260	Waits	824 W 11TH ST	Scott's TV Inc	Low									
261	11th	820 W 11TH ST	Residential	Low		X							
262	11th	818 W 11TH ST	Residential	Low		X							
263	11th	800 W 11TH ST	Office Space	Medium					X			3 access points / 11th St. block face	
264	Prairie	800 W 11TH ST	Office Space	Medium					X			functional area once Prairie is signalized.	
												functional area once Prairie is signalized.	
265	Prairie	724 W 11TH ST	Residential	Low					X				
266	11th	720 W 11TH ST	Residential	Low		X	X					functional area once Prairie is signalized.	
267	11th		Alley	Low		X						functional area once Prairie is signalized.	
268	11th	702 W 11TH ST	Residential	Low		X						3 access points / 11th St. block face	
269	Summit	702 W 11TH ST	Ernie's Sewing Home Business	Low									
270	11th		Alley	Low									
271	Duluth	216 S DULUTH AVE	Sayre Associates	Medium									
272	11th		Alley	Low		X							
273	11th	512 W 11TH ST	Residential	Low		X							
274	Spring	231 S SPRING AVE	Parking Lot/Howalt & McDowell	Medium									
275	Spring	430 W 11TH ST	Bowden Youth Center	Medium									
276	11th	225 S MINNESOTA AVE	Howalt & McDowell Insurance	Medium		X	X						
277	11th	225 S MINNESOTA AVE	Howalt & McDowell Insurance	Medium		X	X						
278	Minnesota	225 S MINNESOTA AVE	Howalt & McDowell Insurance	Medium					X				

## Notes:

(a) Business / property names determined during field reviews.

(b) Driveway activity is based on a combination of the trip generation rates taken from the *ITE Trip Generation* manual and field observations.

(c) Access related evaluation criteria for existing driveways are discussed in the text of this memorandum.

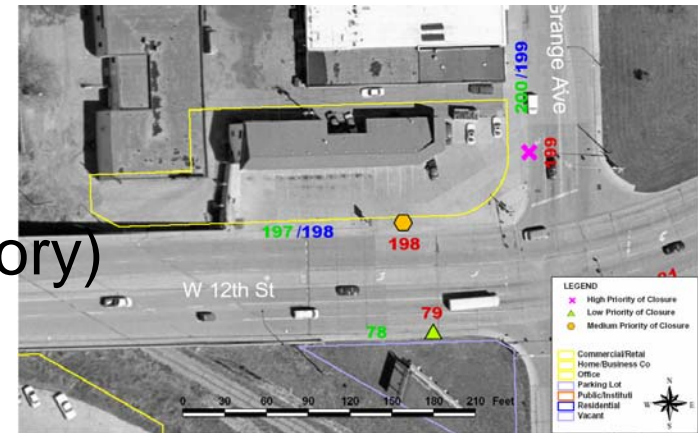


# Display Tools for “One-on-One”



## Key to Success - Prioritization

- Physical Attributes:
  - ❑ Trip generation (rough order of magnitude based on ITE category)
  - ❑ Proximity to public cross route intersection
  - ❑ Hazard level/potential
- Willingness of landowner to work with City/State
  - ❑ Level of cooperation will affect timing; more willing to accept recommendations earlier implementation





# Key to Success - Prioritization

- Location relative to proposed rehabilitation project (east or west of Western Avenue)
- Cost:
  - East of Western Avenue have project in works
  - West of Western Avenue all/primarily city cost and have a more limited budget



# “One-on-One” Meetings

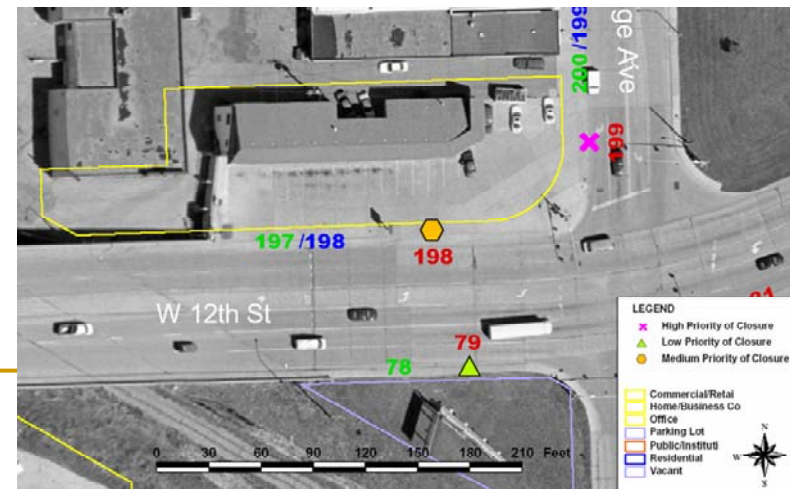
- Held a two-day open house
- 9:00 AM to 3:00 PM each day
- Goal: Determine potential effects of preliminary access concept on site operations:
  - Understand site operations/flow
  - Discuss ability to modify preliminary concept
- Talked individually about the use of their driveways and site circulation





# “One-on-One” Meetings

- Found that many had existing flow problems that could be fixed by reducing driveways and making other alterations
- Vast majority willing to compromise on initial position:
  - Slight location adjustments
  - Width adjustments



# Before

## **CURRENT ACCESS CHARACTERISTICS**

### **Access Density (Accesses/Mile)**

<b>12th Street</b>	<b>103</b>
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<b>11th Street</b>	<b>91</b>
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<b>10th Street</b>	<b>83</b>
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### **Accesses/Parcel**

<b>12th Street</b>	<b>2.05</b>
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<b>11th Street</b>	<b>1.12</b>
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<b>10th Street</b>	<b>1.17</b>
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<b>Average</b>	<b>1.56</b>
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# After

## **PLANNED ACCESS CHARACTERISTICS**

### **Access Density (Accesses/Mile)**

<b>12th Street</b>	<b>70</b>	<b>-32%</b>
<b>11th Street</b>	<b>76</b>	<b>-16%</b>
<b>10th Street</b>	<b>67</b>	<b>-19%</b>

### **Accesses/Parcel**

<b>12th Street</b>	<b>1.29</b>	<b>-37%</b>
<b>11th Street</b>	<b>0.94</b>	<b>-16%</b>
<b>10th Street</b>	<b>0.90</b>	<b>-23%</b>
<b>Average</b>	<b>1.09</b>	<b>-30%</b>

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# Summary

- Corridor Study in preparation for reconstruction project including access reduction
  - Potential public resistance mitigated by extensive public information process, including personal attention
  - Hard work resulted in favorable opinion of access management in business community
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