Goals of Project

Study Area

CSAH 31 (Pilot Knob Road) from CSAH 42 to 180th Street

Problem Statement

As the area continues to undergo extensive development, increasing traffic volumes on Pilot Knob Road and the surrounding street system will lead to increased congestion resulting in an increased number of crashes, difficulty in turning onto the roadway and an increase in the potential for more signal controlled intersections on Pilot Knob Road.

Study Objectives

Develop a Plan to Accomplish the Following:

1. Identify appropriate access locations, access design types and traffic control strategies for the Pilot Knob Road corridor.
2. Explore compact urban interchange concepts and develop a right of way footprint required for an interchange at CSAH 31 and CSAH 46 (Pilot Knob Road and 160th Street).
3. Develop a corridor plan incorporating innovative solutions that provides a high level of mobility and safety. This will include planning for existing and future collector roads in the area.
4. Develop a corridor access management plan to respond to development requests for access along the corridor.

Access Guidelines

County Access Management Guidelines

Access Management involves planning the location, design, and operation of streets, driveways, traffic control strategies, and median openings.

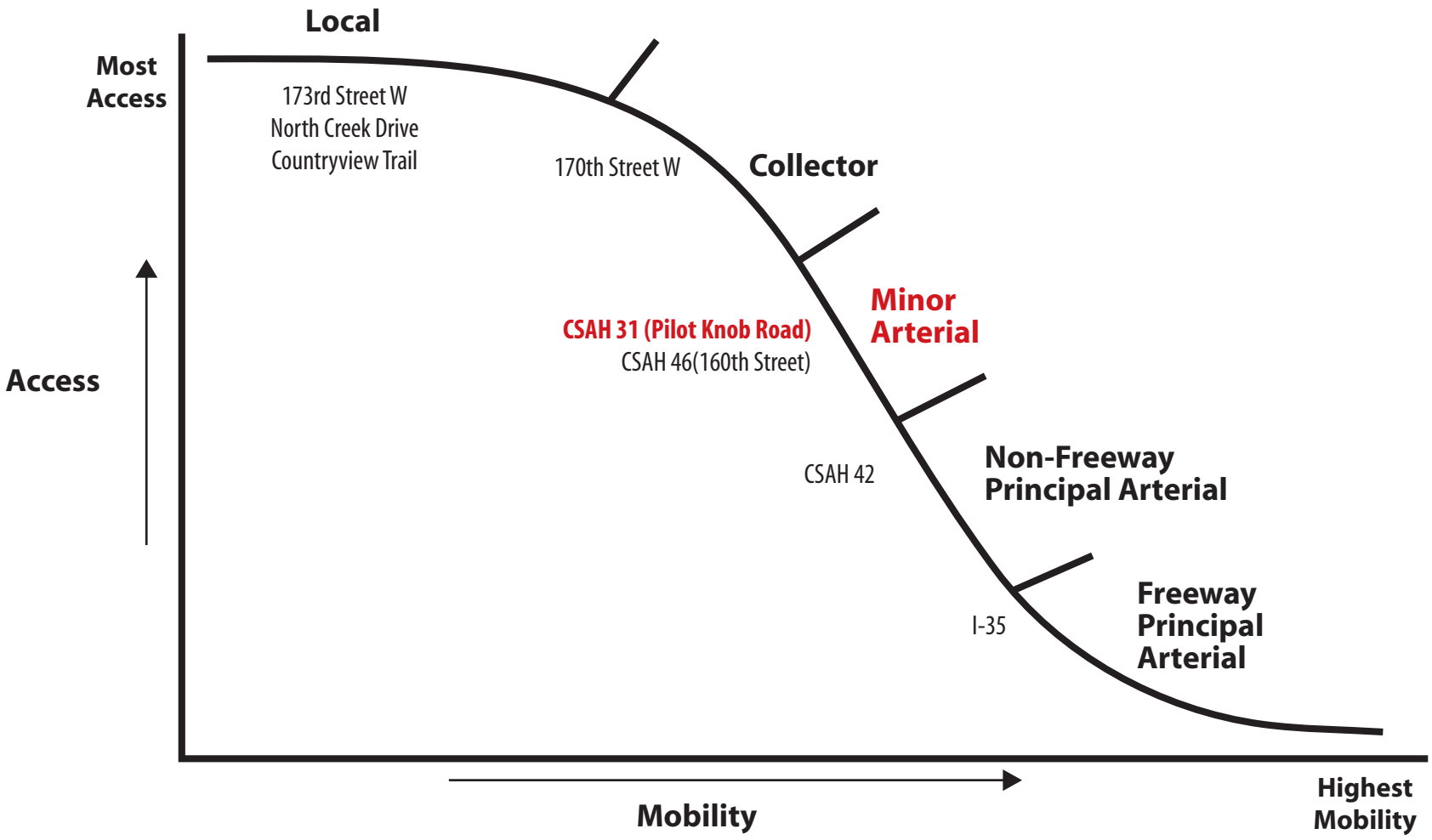
Access Management Objectives

Access Management Guidelines are designed to balance the safety and mobility needs of roadway users and the access needs of adjacent property owners.

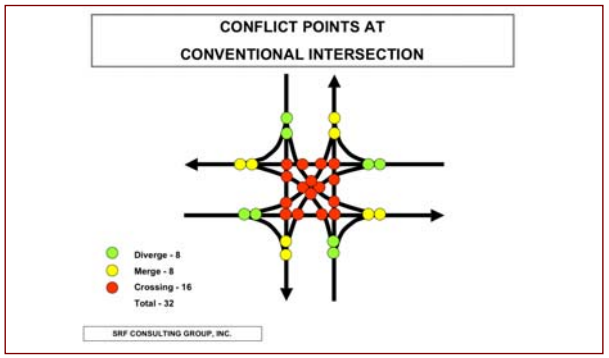
Guidelines as Applied to Pilot Knob Road

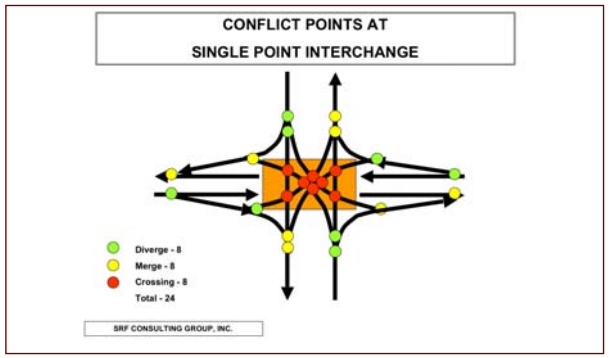
1. Full access signalized intersections on Pilot Knob Road should be spaced ½ mile apart.
2. Partial access with median restrictions may be allowed.
3. Direct private residential or commercial access is not desirable.
4. Median openings may be removed or modified to address safety and operational issues.

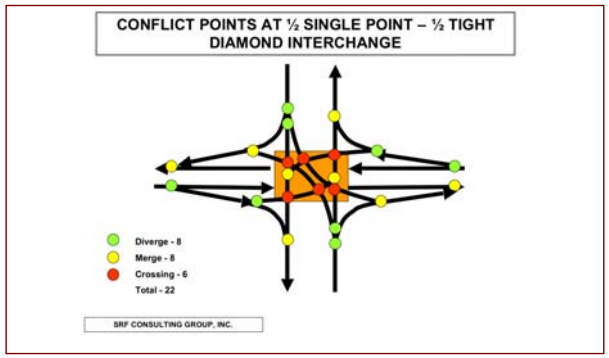
Relationship Between Functional Classifications and Mobility and Access

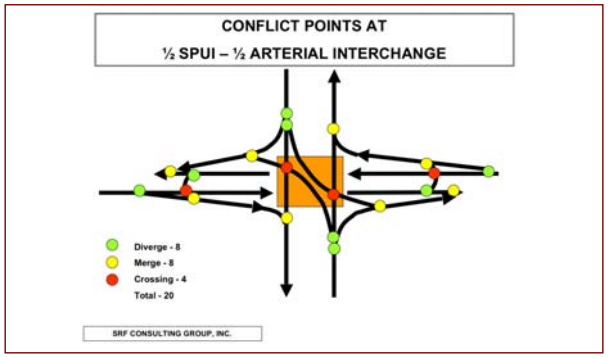


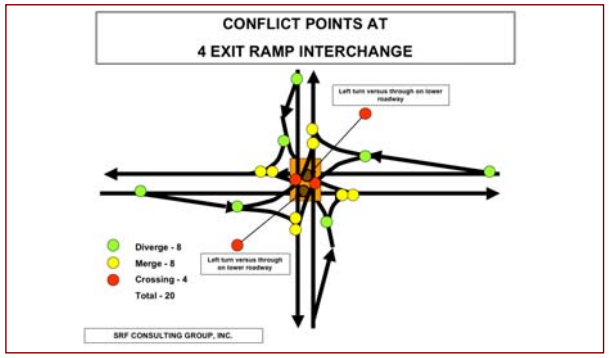
Conflict Points

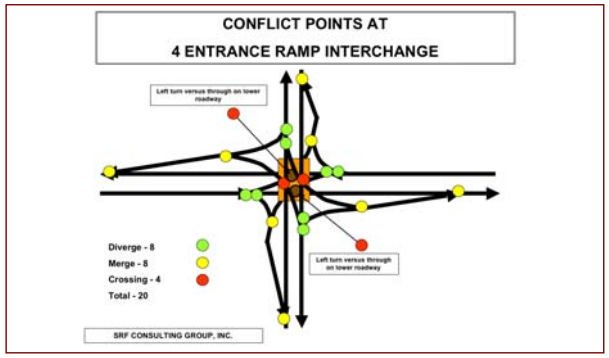


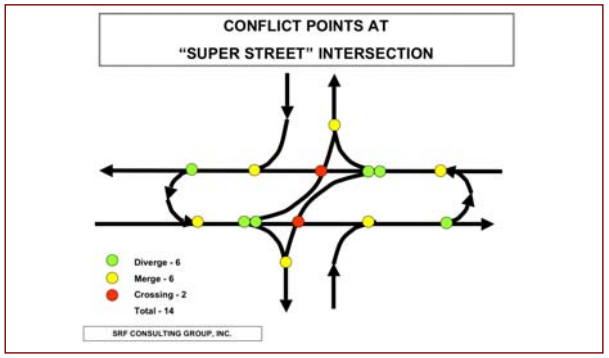


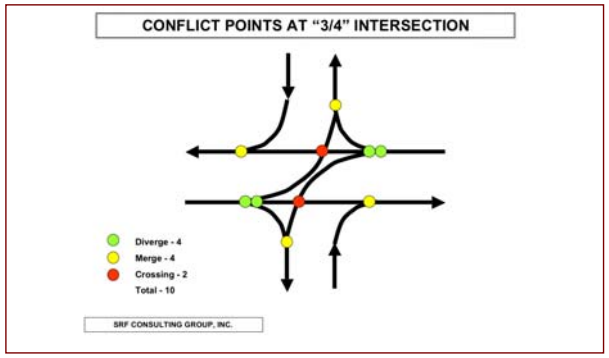


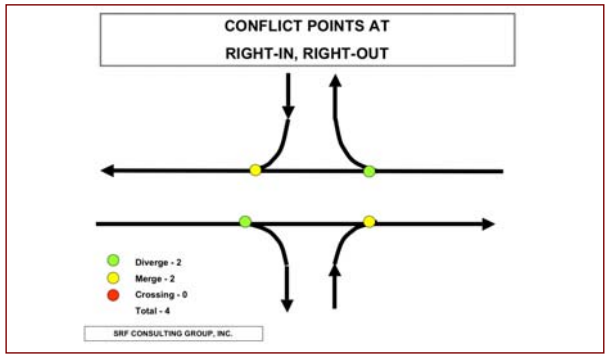












CSAH 31 (Pilot Knob Road)
Corridor Study

Examples of Intersections

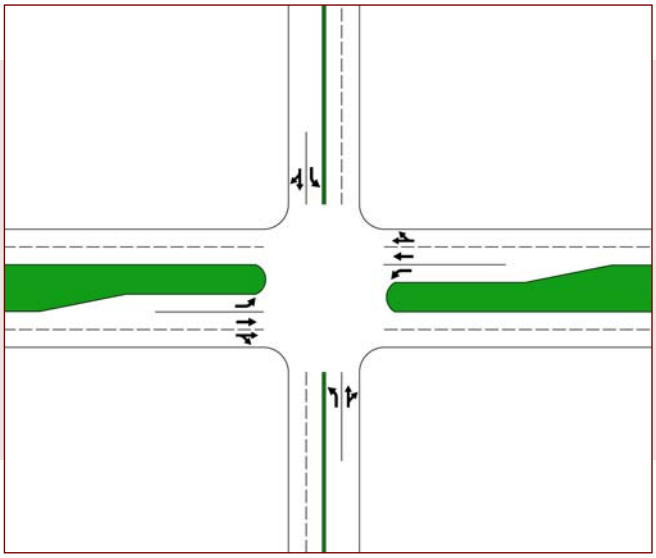
1. All Movements Allowed

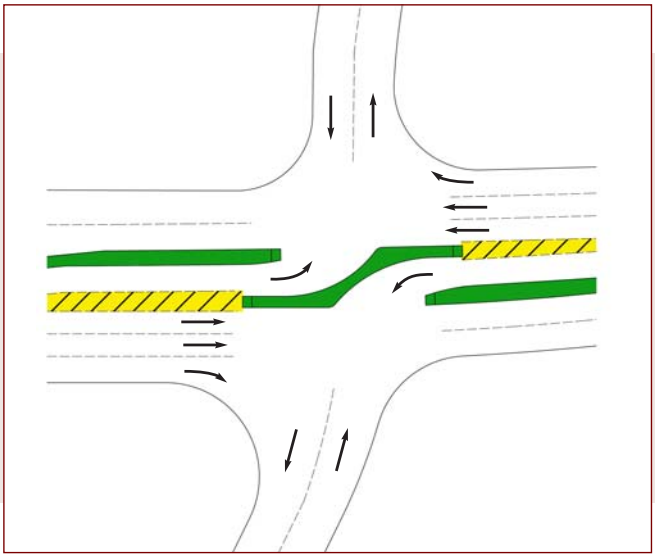
Advantages

- No restrictions on access to either street

Disadvantages

- Becomes inefficient at higher traffic volumes





2. Some Movements Restricted

Advantages

- Restricting left turn from side street dramatically reduces the chance of a crash

Disadvantages

- Drivers who would turn left from the side street or cross a main road need to follow a different path to a full access location

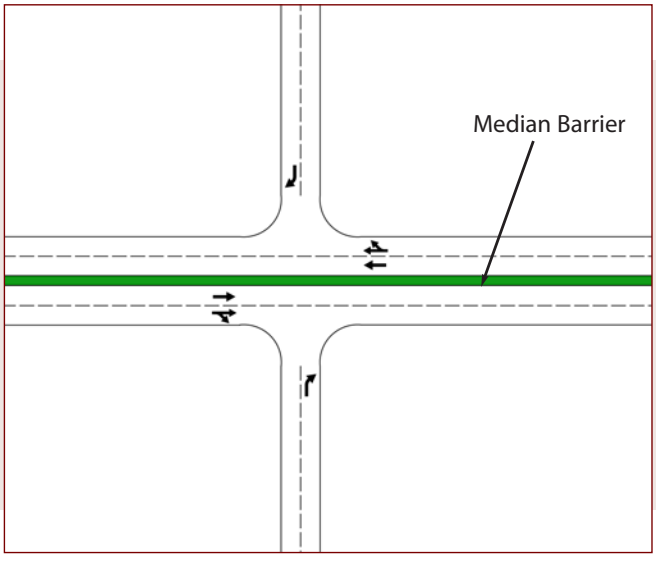
3. Right-In/Right-Out

Advantages

- Further reduction in the chance of a crash

Disadvantages

- Drivers who would turn left from the side street, turn left on the side street or cross the main road need to follow a different path to a full access location



Arterial Alternative Evaluation Criteria

		Arterial Travel Time	Travel Time Predictability	Consistency with Arterial Vision	Interchange / Intersection Cost	Corridor Cost	Accessibility: To/From Development	Safety: Total Arterial Conflict Points	Meets Driver Expectations	Minimizes R/W Impacts	Intersection Delay	Transit System Accommodation	Pedestrian/Bicycle Accommodation
Suburban Arterial	Existing Geometrics												
	6 Lane At-Grade, Dual Left-Turns												
	½ SPUI - ½ Diamond Interchange												
	½ SPUI - ½ Arterial Interchange												
	Four On-Ramps Interchange												
	Four Off-Ramps Interchange												
Super-Street	Existing Geometrics												
	6 Lane At-Grade, Dual Left-Turns												
	½ SPUI - ½ Diamond Interchange												
	½ SPUI - ½ Arterial Interchange												
	Four On-Ramps Interchange												
	Four Off-Ramps Interchange												

Project Schedule

TASKS

Project Start-up

Collection of Data and Background Information

Preparation and Evaluation of Alternative Improvements

Prepare Report and Cost Estimates

JUNE

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	
25	26	27	28	29	30	

JULY

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

AUGUST

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

SEPTEMBER

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

OCTOBER

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

NOVEMBER

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

DECEMBER

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

MEETINGS

- Project Kick-Off Meeting (June 16, 2006)
- **Public Meeting One (August 17, 2006)**
- Public Meeting Two (3rd Week of September 2006)
- Public Meeting Three (3rd Week of October 2006)
- Joint City Council (1st Week of November 2006)
- Dakota County Physical Development Committee (3rd Week of November 2006)