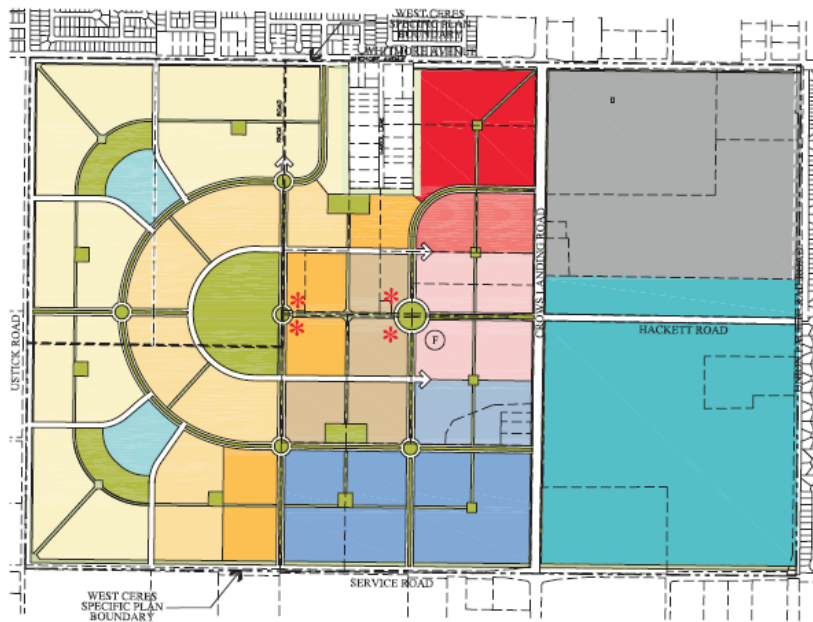


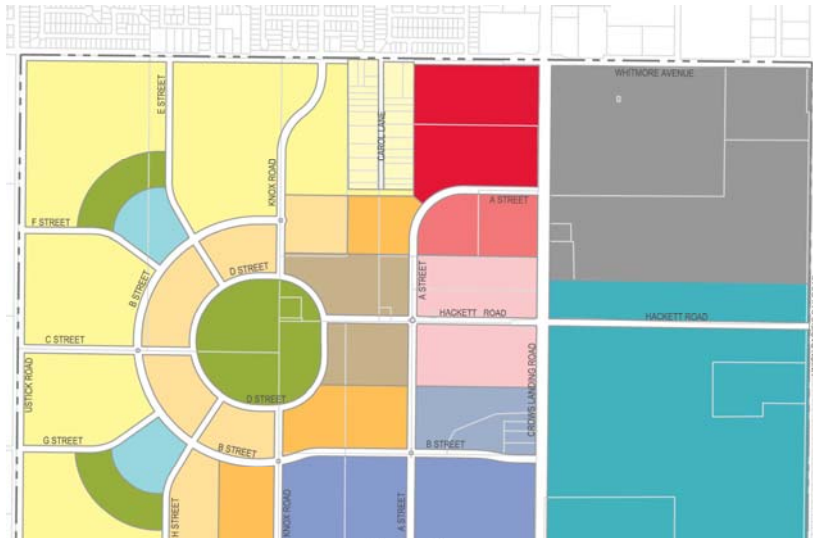
APPENDIX F

TRAFFIC STUDY MATERIALS



GENERAL PLAN	LAND USE	DENSITY RANGE	ACREAGE
LDR	LOW DENSITY RESIDENTIAL	7 du/ac max.	146.0
MDR	MEDIUM DENSITY RESIDENTIAL	7-12 du/ac	77.6
HDR I	HIGH DENSITY RESIDENTIAL I	12-18 du/ac	38.4
HDR II	HIGH DENSITY RESIDENTIAL II	18-25 du/ac	31.9
RC	REGIONAL COMMERCIAL	-	34.1
CC	COMMUNITY COMMERCIAL	-	15.3
NC/HDR	NEIGHBORHOOD COMMERCIAL	18-25 du/ac	32.2
O/HDR	OFFICE MIXED-USE	18-25 du/ac	17.7
LI	LIGHT INDUSTRIAL	-	61.7
GI	GENERAL INDUSTRIAL	-	126.6
CF	COMMUNITY FACILITIES	-	173.9
S	POTENTIAL ELEMENTARY SCHOOL	-	16.1
P	PARKS/PLAZAS	-	43.2
P	PARKWAYS/LANDSCAPE CORRIDORS	-	26.9
CL	CAROL LANE	-	18.9
CLB	CAROL LANE BUFFER	-	-
ST	STREETS	-	98.9
*	POTENTIAL NEIGHBORHOOD COMMERCIAL SITE	-	-
P	POTENTIAL FIRE STATION/POLICE SUBSTATION	-	-
TOTAL			959.4

West Ceres Specific Plan Preferred Concept: November 2008



Symbol	Land Use	Density Du/Ac.	Approx. Acres±
VLDR	Very Low Density Residential	4.5 max.	18.1
LDR	Low Density Residential	4.5 - 7	178.9
MDR	Medium Density Residential	7 - 12	54.9
HDR I	High Density Residential I	12 - 18	39.7
HDR II	High Density Residential II	18 - 25	26.5
NC	Neighborhood Commercial	18 - 25	34.3
O	Office	18 - 25	17.7

VLDR	Very Low Density Residential	RC	Regional Commercial	GI	General Industrial
LDR	Low Density Residential	CC	Community Commercial	S	School (Elementary)
MDR	Medium Density Residential	NC	Neighborhood Commercial	CF	Community Facilities
HDR I	High Density Residential I	O/HDR	Office/Mixed-Use	P	Park & Plazas
HDR II	High Density Residential II	BP	Business Park	---	Project Boundary

West Ceres Specific Plan Preferred Concept: March 2010

Estimated West Ceres Specific Plan Trips at City of Modesto Suggested Study Locations

		AM	PM
#	A Carpenter / Maze	68	141
#	B Mitchell-ElVista / Yosemite	63	82
	C Carpenter / Paradise	143	215
	D Carpenter / Hatch	231	268
	E Ustick / Hatch	25	27
	F Dallas / Hatch	66	105
	G Morgan / Hatch	288	297
	H Yuma / Whitmore	450	588
	I Dallas / Whitmore	758	1,141
	J Crows Landing / Glenn	1,760	2,086
	K Crows Landing / El Paso	1,236	1,501
	L Crows Landing / 7th	320	485
	M River / 9th	194	242
	N B / 7th	263	445
	O B / 9th	85	127
	P D / 9th	39	65

Ramps

Q	Crows Landing SB Off	548	429
	Crows Landing SB On	0	0
	Crows Landing NB Off	0	0
R	Crows Landing NB On	294	507
	Hatch NB On	46	0
	Hatch NB Off	0	0
	Hatch SB On	0	0
	Hatch SB Off (s)	0	0
	Hatch SB Off (n)	0	0
S	Whitmore NB Off	21	143
	Whitmore NB On	0	0
	Whitmore SB Off	0	0
T	Whitmore/2nd SB On	126	107
U	Mitchell NB Off	347	177
	Mitchell NB On	0	0
	Mitchell SB Off	0	0
V	Mitchell SB On	111	138

Segments

**	North of Crows Landing - SB	548	429
**	North of Crows Landing - NB	347	507
	North of Hatch SB	0	0
	North of Hatch NB	53	0
	North of Whitmore SB	0	0
	North of Whitmore NB	0	0
	North of Mitchell SB	69	157
	North of Mitchell NB	21	138
**	South of Mitchell SB	134	295
**	South of Mitchell NB	423	315

Legend:

A	Map locations
sdfs	Low volume locations - need not be studied
#	Recent counts available at these locations
**	Locations scoped to be studied
	New counts needed to analyze these ramp locations
sdfs	Locations to be considered for analysis

Intersections

The methodology used to analyze intersection levels of service (LOS) is that outlined in the Transportation Research Board's Highway Capacity Manual, 2000. Level of service is a qualitative indication of the level of delay and congestion experienced by motorists using an intersection. Level of service is designated by the letters A through F, with A being the best condition and F being the worst (high delay and congestion).

At signalized intersections and all-way stop intersections, the level of service is determined by the weighted average delay for all vehicles entering the intersection. The methodologies for these types of intersections calculate a single weighted average delay and level of service for the intersection.

Table 1 presents the average delay criteria used to determine the level of service at signalized intersections. The average delay criteria used to determine the level of service at all-way stop intersections is the same as that shown in Table 2.

Table 1 Level of Service Criteria - Signalized Intersections

Level of Service (LOS)	Average Delay ¹ (secs/veh)	Description
A	≤ 10.00	Very Low Delay: This level of service occurs when progression is extremely favorable and most vehicles arrive during a green phase. Most vehicles do not stop at all.
B	10.1-20.0	Minimal Delays: This level of service generally occurs with good progression, short cycle lengths, or both. More vehicles stop than at LOS A, causing higher levels of average delay.
C	21.0-35.0	Acceptable Delay: Delay increases due to only fair progression, longer cycle lengths, or both. Individual cycle failures (<i>to service all waiting vehicles</i>) may begin to appear at this level of service. The number of vehicles stopping is significant, though many still pass through the intersection without stopping.
D	35.1-55.0	Approaching Unstable/Tolerable Delays: The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high v/c ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
E	55.1-80.0	Unstable Operation/Significant Delays: This is considered by many agencies the upper limit of acceptable delays. These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures are frequent occurrences.
F	≥ 80.0	Excessive Delays: Describes operations with average delay in excess of 60 seconds per vehicle. This level, considered to be unacceptable to most drivers, often occurs with oversaturation (i.e., when arrival flow rates exceed the capacity of the intersection). It may also occur at high v/c ratios below 1.00 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.

¹ Weighted average of delay on all approaches. This is the measure used by the *Highway Capacity Manual* to determine level of service.

The potential need for traffic signals at the unsignalized intersections is evaluated in accordance to the 2003 edition of the Manual on Uniform Traffic Control Devices (MUTCD). As stated in the Manual, "An engineering study of traffic condition, pedestrian characteristics, and physical characteristics of the location shall be performed to determine whether installation of a traffic control signal is justified at a particular location. The investigation of the need for a traffic control signal shall include an analysis of the applicable factors contained in the following traffic signal warrants and other factors related to existing operation and safety at the study location:

Table 2 Level of Service Criteria – Unsignalized Intersections

Level of Service	Average Delay ¹ (seconds/veh)		
A	0.0	-	10.0
B	10.1	-	15.0
C	15.1	-	25.0
D	25.1	-	35.0
E	35.1	-	50.0
F	>50.0		

¹Weighted average delay

Source: *Highway Capacity Manual 2000*, Transportation Research Board, Washington DC

Warrant 1: Eight-Hour Vehicular Volume

Warrant 2: Four-Hour Vehicular Volume

Warrant 3: Peak Hour

Warrant 4: Pedestrian Volume

Warrant 5: School Crossing

Warrant 6: Coordinated Signal System

Warrant 7: Crash Experience

Warrant 8: Roadway Network

Roadways

As intersection analysis, level of service for roadways is used as a qualitative measure of the effect of a number of factors, including speed and travel time, traffic interruptions, freedom to maneuver, driving comfort and convenience. The level of service range for roadway conditions are generally described in Table 3.

Levels of service for roadway links were estimated using a planning methodology that is based on the Highway Capacity Manual (HCM). This methodology uses peak hour traffic volumes to determine levels of service for general planning applications as shown in Table 4. The capacity of a roadway is based on the number of signalized intersections per mile, number of lanes, presence of left-turn lanes and medians, and other factors from the HCM method.

Table 3 Roadway Level of Service Definitions

LOS	Description
A	Free Flow or Insignificant Delays: Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Control delay at signalized intersections is minimal.
B	Stable Operation or Minimal Delays: The ability to maneuver within the traffic stream is only slightly restricted, and control delay at signalized intersections are not significant.
C	Stable Operation or Acceptable Delays: The ability to maneuver and change lanes is somewhat restricted, and average travel speeds may be about 50 percent of the free flow speed.
D	Approaching Unstable or Tolerable Delays: Small increases in flow may cause substantial increases in delay and decreases in travel speed.
E	Unstable Operation or Significant Delays: Significant delays may occur and average travel speeds may be 33 percent or less of the free flow speed.
F	Forced Flow or Excessive Delays: Congestion, high delays, and extensive queuing occur at critical signalized intersections with urban street flow at extremely low speeds.

Source: *Highway Capacity Manual, Transportation Research Board, Washington D.C., 2000.*

Table 4 Generalized Peak Hour Two-Way Volumes for Urban Areas

Class I (>0.00 to 1.99 signalized intersections per mile)						
Lanes	Divided	Level of Service				
		A	B	C	D	E
2	Undivided	**	400	1,310	1,560	1,610
4	Divided	460	2,780	3,300	3,390	***
6	Divided	700	4,240	4,950	5,080	***
8	Divided	890	5,510	6,280	6,440	***
Class II (2.00 to 4.50 signalized intersections per mile)						
Lanes	Divided	Level of Service				
		A	B	C	D	E
2	Undivided	**	180	1,070	1,460	1,550
4	Divided	**	390	2,470	3,110	3,270
6	Divided	**	620	3,830	4,680	4,920
8	Divided	**	800	5,060	6,060	6,360
Class III (more than 4.5 signalized intersections per mile and not within primary City central business district)						
Lanes	Divided	Level of Service				
		A	B	C	D	E
2	Undivided	**	**	500	1,200	1,470
4	Divided	**	**	1,180	2,750	3,120
6	Divided	**	**	1,850	4,240	4,690
8	Divided	**	**	2,450	5,580	6,060
Class IV (more than 4.5 signalized intersections per mile and within primary City central business district)						
Lanes	Divided	Level of Service				
		A	B	C	D	E
2	Undivided	**	**	490	1,310	1,420
4	Divided	**	**	1,170	2,880	3,010
6	Divided	**	**	1,810	4,350	4,520
8	Divided	**	**	2,460	5,690	5,910

Source: Florida Department of Transportation. Generalized LOS Tables.
 <<http://www.dot.state.fl.us/planning/systems/sm/los/pdfs/tables-051707.pdf>>

Freeway Mainline Segments

Highway Capacity Manual (HCM) procedures were used to calculate average peak hour capacities for each LOS threshold from A to F for freeway segment. The LOS was determined using density given an estimated free-flow speed of 70 miles per hour for all the freeway segments, which is the base free-flow speed for urban areas from the HCM. Density is the number of passenger car per mile per lane for a transportation facility. Table 5 contains the density thresholds.

Table 5 LOS and Density for Free-Flow Speed at 70 mi/h

Level of Service	Maximum Density (pc/mi/ln)
A	11
B	18
C	26
D	35
E	45

Source: Highway Capacity Manual, Transportation Research Board, Washington D.C, 2000, 23-4.

Freeway Merge/Diverge Areas

Highway Capacity Manual (HCM) procedures were used to analyze the freeway ramp merge / diverge areas. Freeway ramp operating conditions are dependent upon traffic volumes and the ramp characteristics. These characteristics include the length and type of acceleration / deceleration lanes; free-flow speed of the ramps; number of lanes; grade; and types of facilities that the ramps interconnect. Table 6 contains the density thresholds.

Table 6 LOS and Density for Freeway Ramp Merge / Diverge Areas

Level of Service	Maximum Density (pc/mi/ln)
A	10
B	20
C	28
D	35
E	>35
E	Demand exceeds capacity

Source: Highway Capacity Manual, Transportation Research Board, Washington D.C, 2000, 25-5.

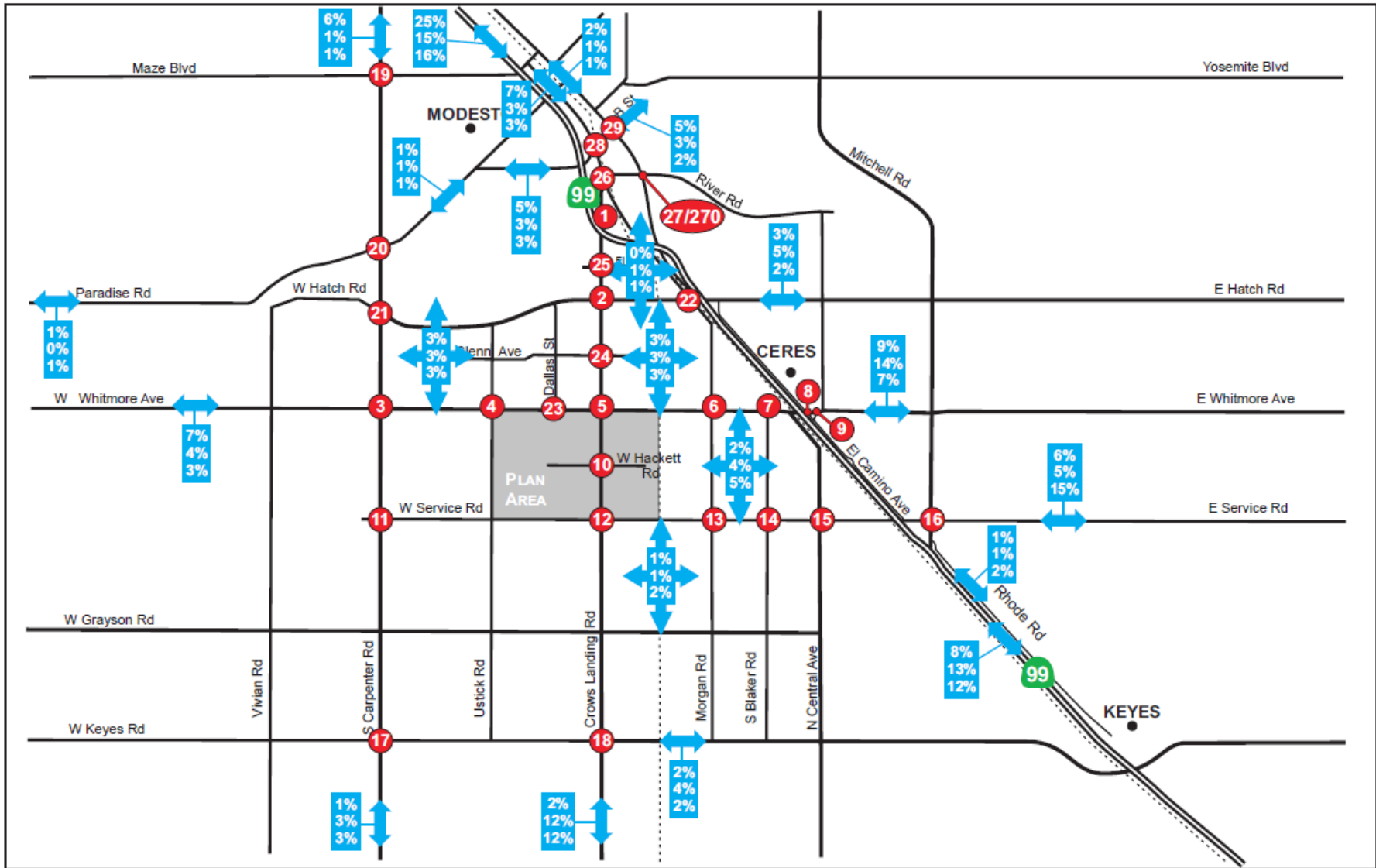
As shown in Table 6, the basic criterion used to determine Freeway Ramp LOS is vehicle density in the merge or diverge area. Note that the 2000 Highway Capacity Manual² requires that several additional criteria be considered so that LOS F is automatically attained for a ramp if:

At an on-ramp, volume exceeds capacity ($V > C$) in:

- The segment of a freeway downstream, or
- The merge-area defined by the on-ramp and the two adjacent freeway lanes,

At an off-ramp, volume exceeds capacity ($V > C$) in:

- The segment of a freeway upstream OR downstream,
- The off-ramp itself, or
- The diverge-area defined by the two adjacent freeway lanes approaching the ramp



LEGEND

⊗ Study Intersections

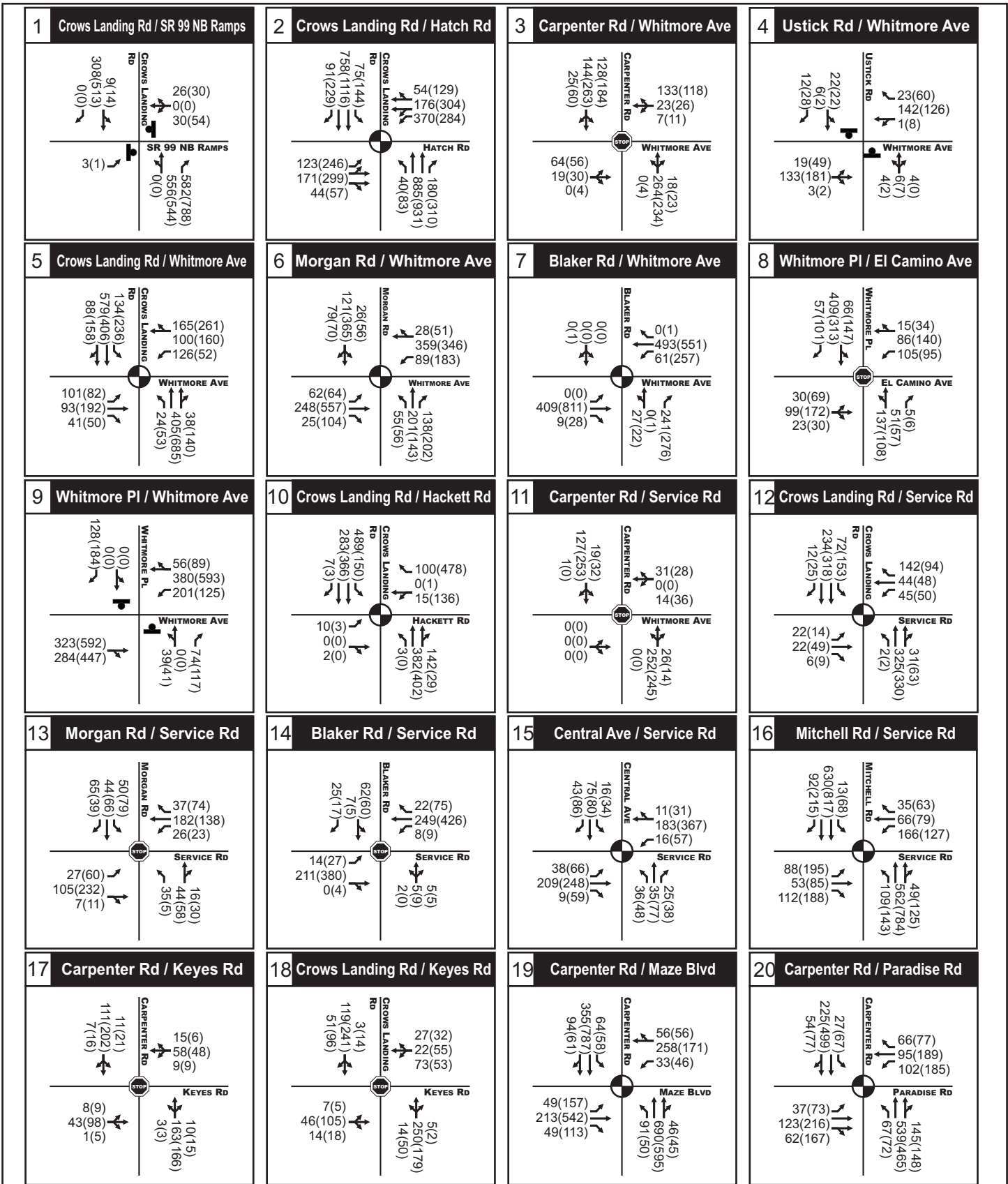
← Residential Trips
← Retail Trips
← Other Trips

Trip Distribution



West Ceres Specific Plan
Traffic Impact Analysis - Plan Area 4

Figure 5
Trip Distribution



LEGEND

Traffic lanes

Stop sign control

All Way Stop

Signalized Intersection

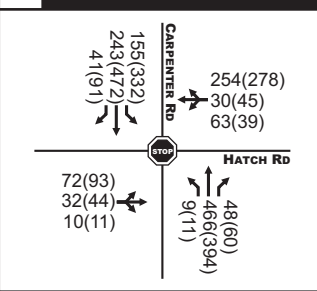


West Ceres Specific Plan
 Traffic Impact Analysis

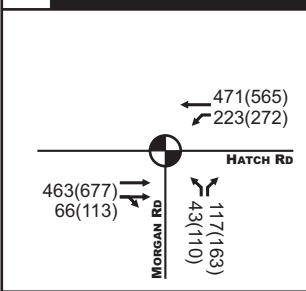
Figure 4
 Existing Lane Geometry &
 Peak Hour Volume AM(PM)

34(76) AM(PM) Peak Hour Volumes

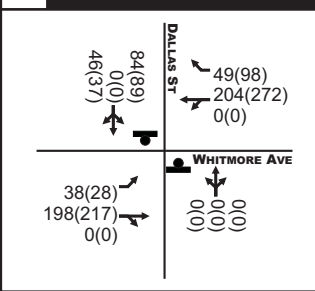
21 Carpenter Rd / Hatch Rd



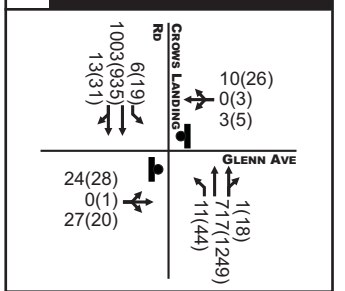
22 Morgan Rd / Hatch Rd



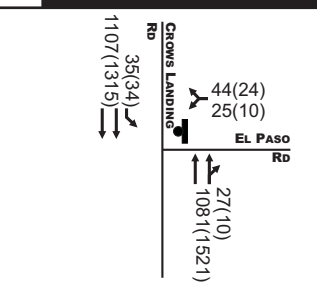
23 Dallas St / Whitmore Ave



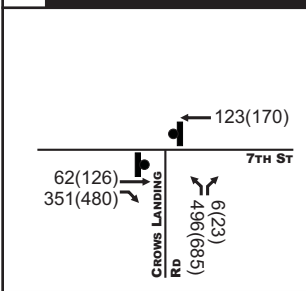
24 Crows Landing Rd / Glenn Ave



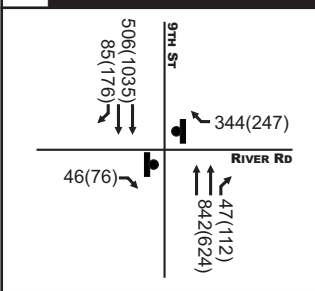
25 Crows Landing Rd / El Paso Ave



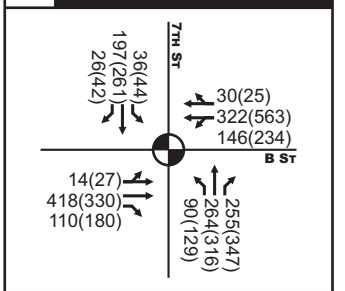
26 Crows Landing Rd / 7th St



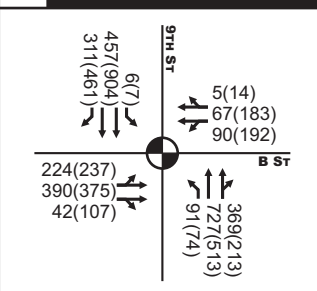
27 9th St / River Rd



28 7th St / B St



29 9th St / B St



LEGEND

- Traffic lanes
- Stop sign control
- All Way Stop
- Signalized Intersection



Not to Scale

West Ceres Specific Plan
Traffic Impact Analysis

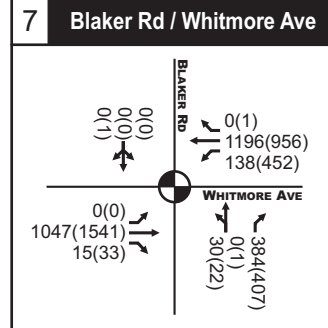
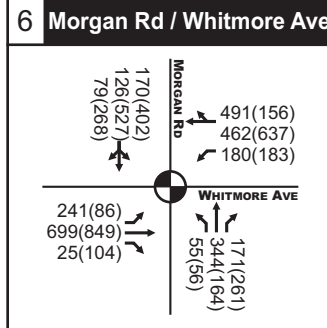
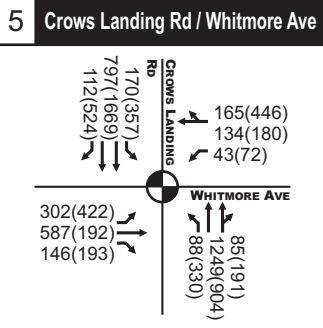
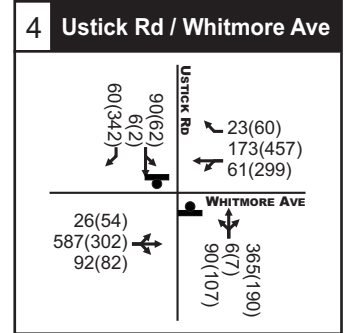
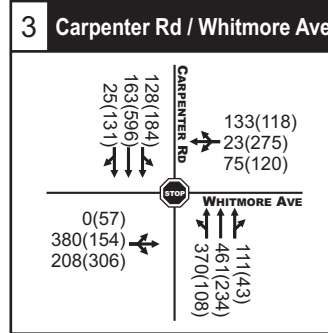
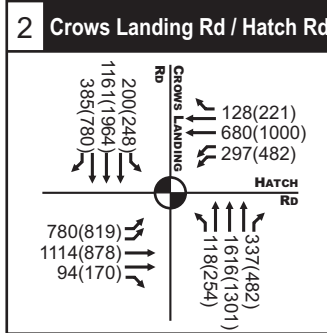
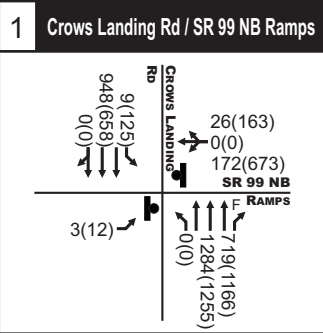
**Figure 4 (Cont.)
Existing Lane Geometry &
Peak Hour Volume AM(PM)**

34(76) AM(PM) Peak Hour Volumes

Dowling Associates, Inc.

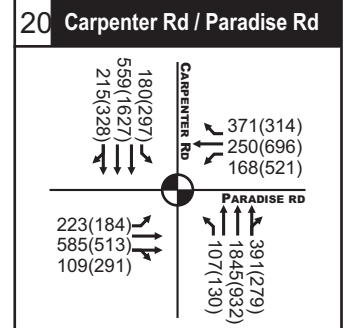
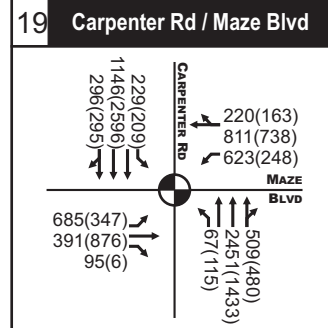
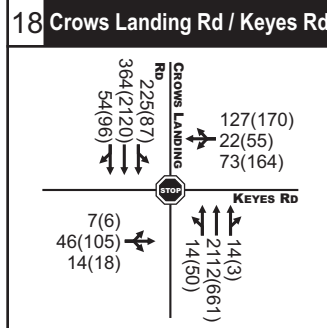
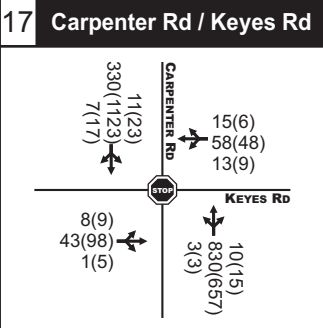
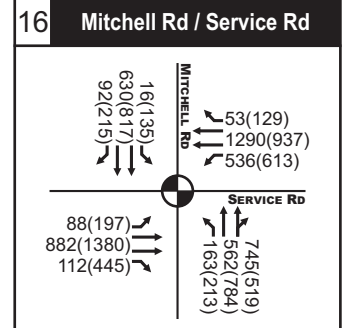
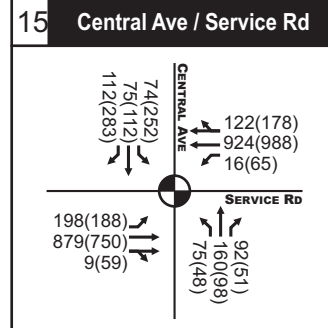
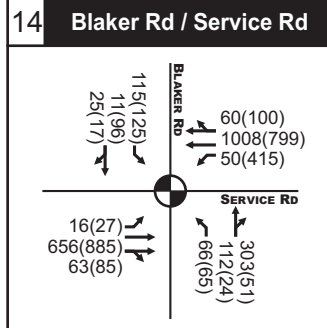
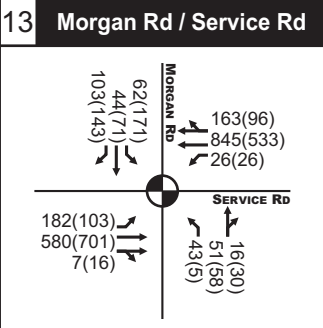
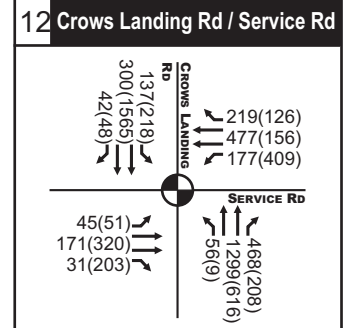
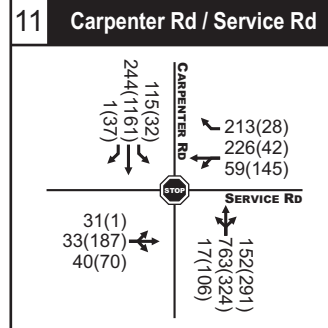
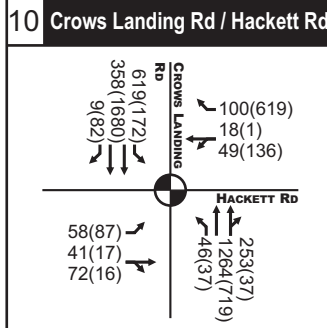
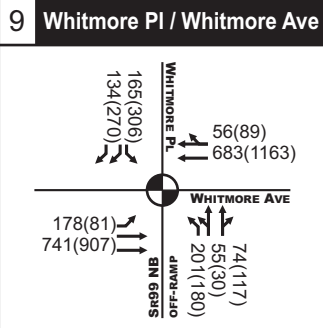
Transportation Engineering • Planning • Research • Education





8 Whitmore Pl / El Camino Ave

Does Not Exist under this Scenario



LEGEND

- Traffic lanes
- Stop sign control
- All Way Stop
- Signalized Intersection

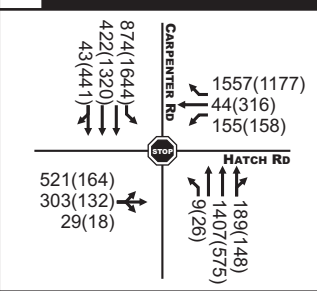
34(76) AM(PM) Peak Hour Volumes



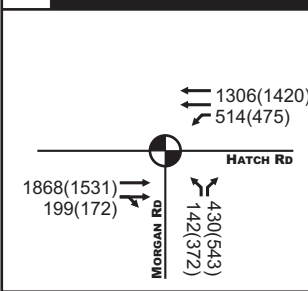
*West Ceres Specific Plan
Traffic Impact Analysis*

**Cumulative No Project
Lane Geometry & Peak Hour Volume
AM(PM)**

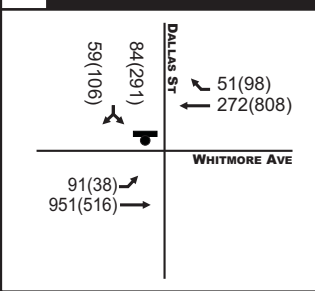
21 Carpenter Rd / Hatch Rd



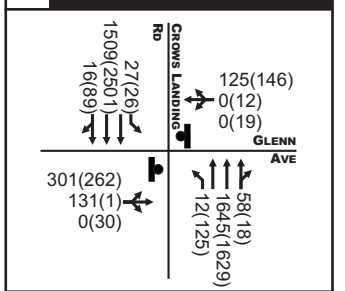
22 Morgan Rd / Hatch Rd



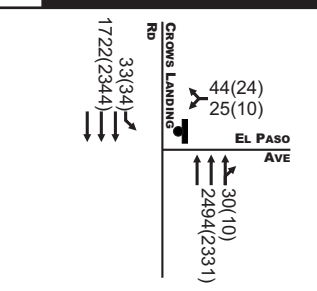
23 Dallas St / Whitmore Ave



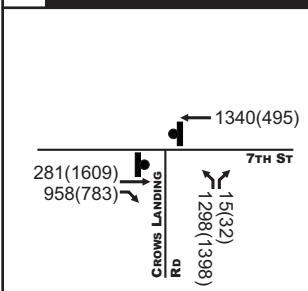
24 Crows Landing Rd / Glenn Ave



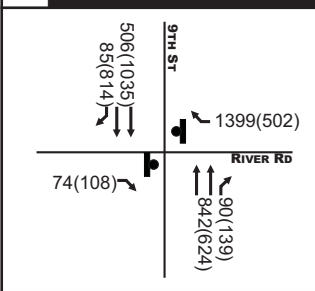
25 Crows Landing Rd / El Paso Ave



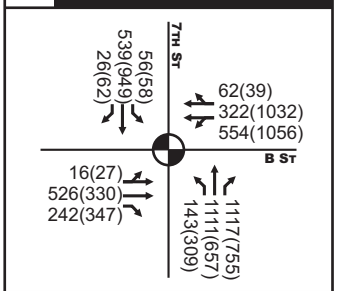
26 Crows Landing Rd / 7th St



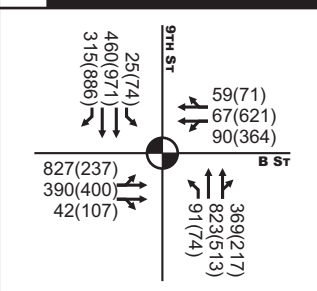
27 9th St / River Rd



28 7th St / B St



29 9th St / B St



LEGEND

- Traffic lanes
- Stop sign control
- All Way Stop
- Signalized Intersection



Not to Scale

West Ceres Specific Plan
Traffic Impact Analysis

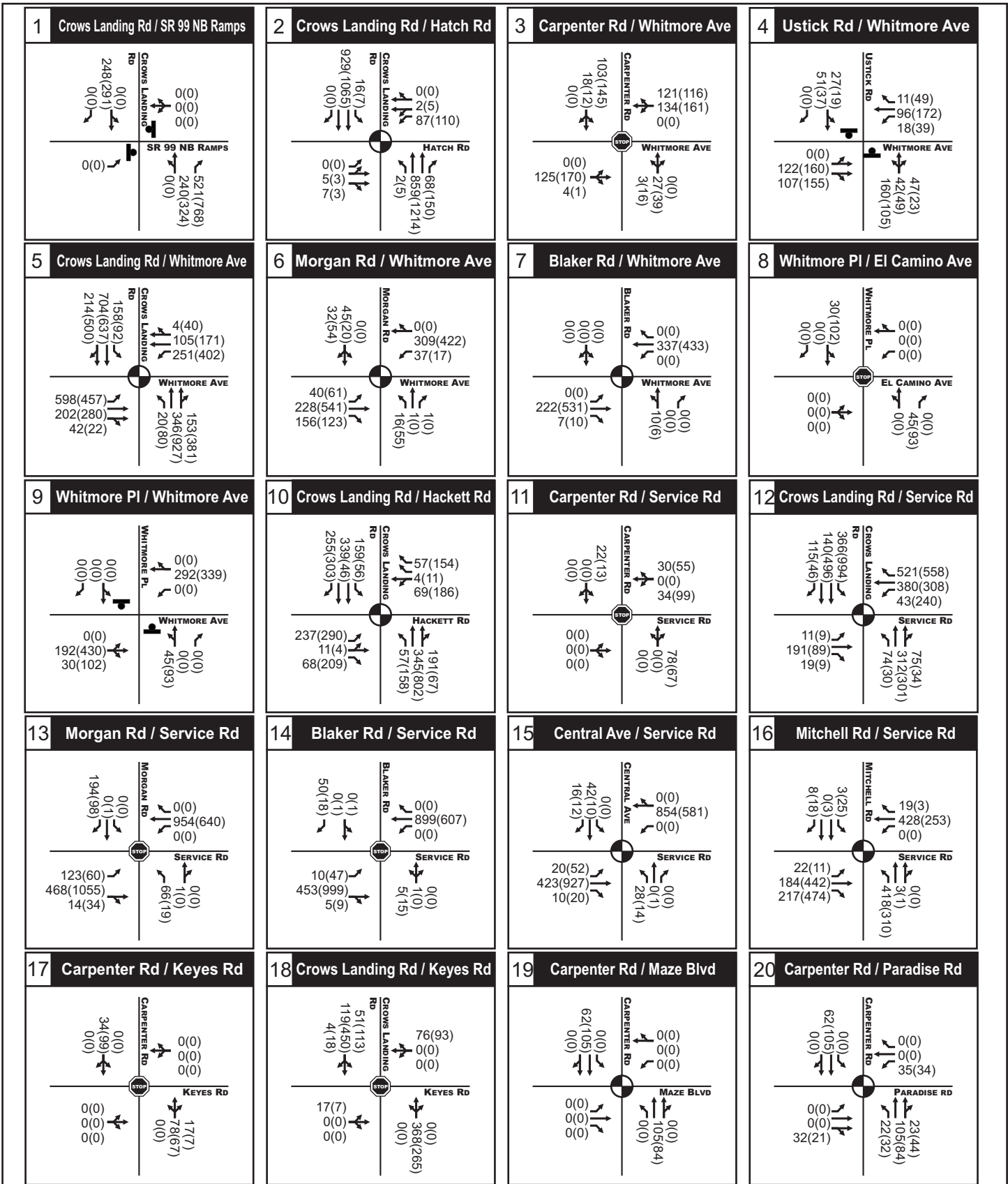
**Cumulative No Project Lane Geometry
& Peak Hour Volume (Cont.)
AM(PM)**

34(76) AM(PM) Peak Hour Volumes

Dowling Associates, Inc.

Transportation Engineering • Planning • Research • Education





LEGEND

Traffic lanes
 Stop sign control
 All Way Stop
 Signalized Intersection

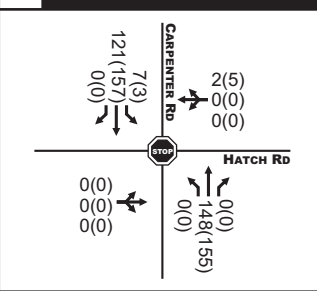


West Ceres Specific Plan
 Traffic Impact Analysis

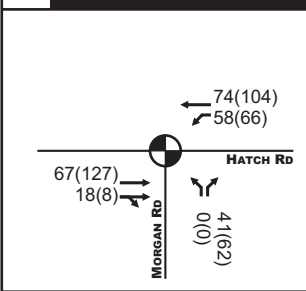
Figure 6
 Project Only Peak
 Hour Volume AM(PM)

34(76) AM(PM) Peak Hour Volumes

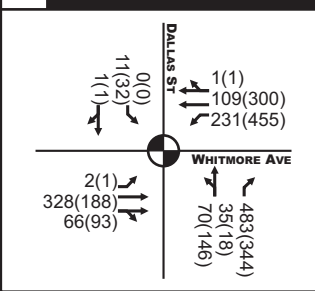
21 Carpenter Rd / Hatch Rd



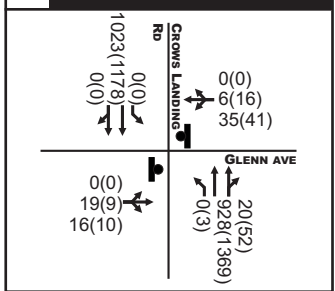
22 Morgan Rd / Hatch Rd



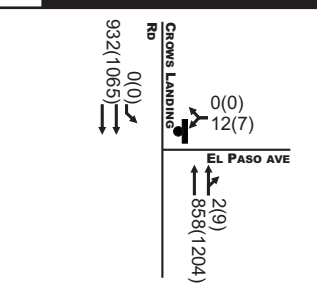
23 Dallas St / Whitmore Ave



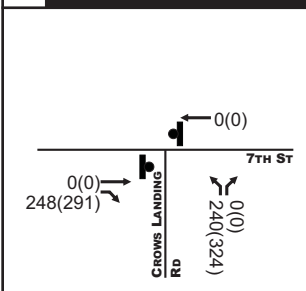
24 Crows Landing Rd / Glenn Ave



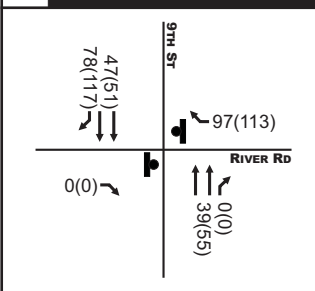
25 Crows Landing Rd / El Paso Ave



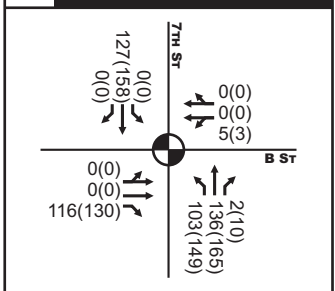
26 Crows Landing Rd / 7th St



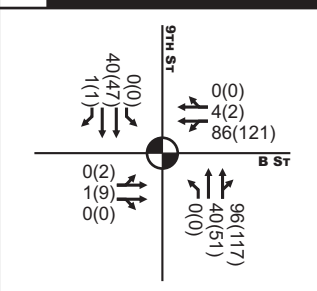
27 9th St / River Rd



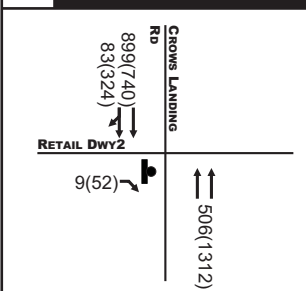
28 7th St / B St



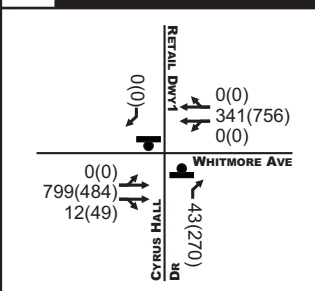
29 9th St / B St



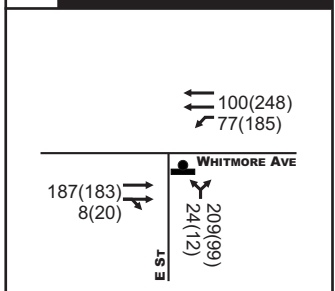
101 Crows Landing Rd / Retail Dwy 2



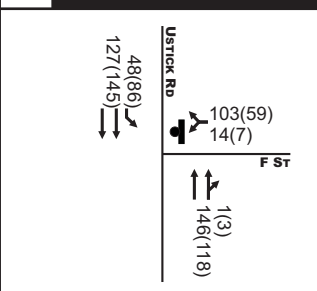
102 Retail Dwy 1 / Whitmore Ave



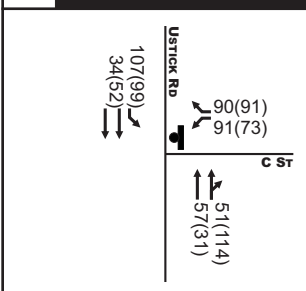
103 E St / Whitmore Ave



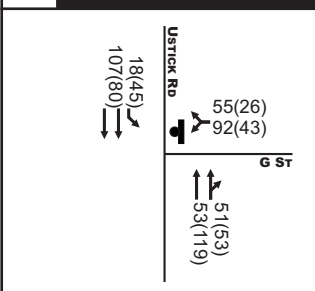
104 Ustick Rd / F St



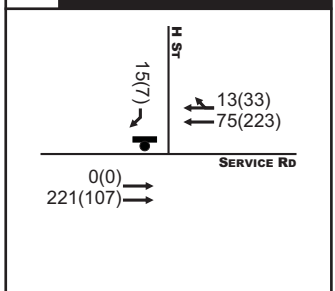
105 Ustick Rd / C St



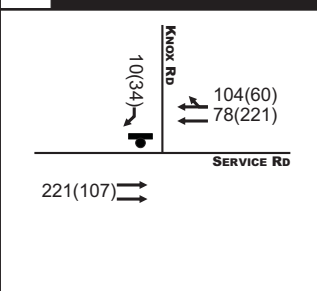
106 Ustick Rd / G St



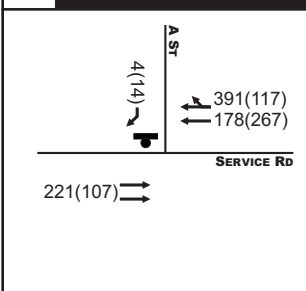
107 H St / Service Rd



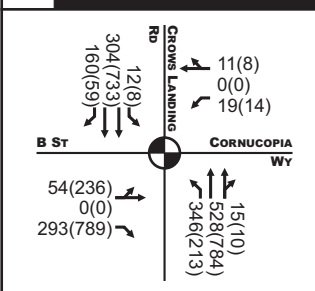
108 Knox Rd / Service Rd



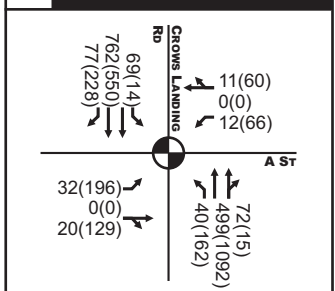
109 A St / Service Rd



110 Crows Landing Rd / Cornucopia Wy



111 Crows Landing Rd / A St



LEGEND

- Traffic lanes
- Stop sign control
- All Way Stop
- Signalized Intersection

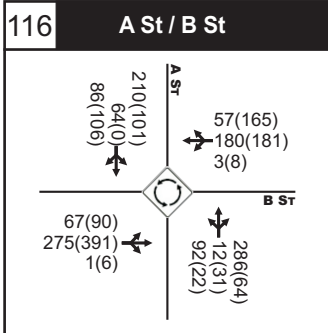
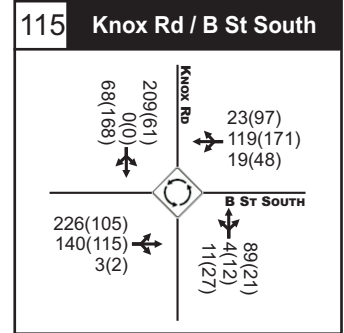
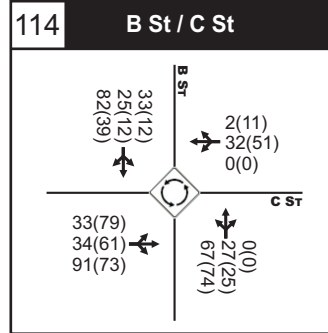
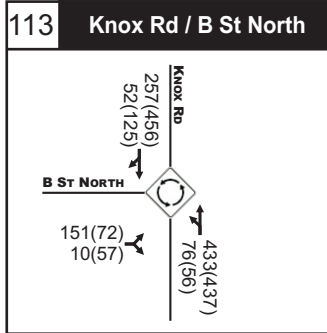
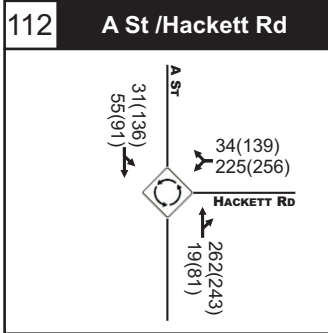


West Ceres Specific Plan
Traffic Impact Analysis

**Figure 6 (Cont.)
Project Only Peak
Hour Volume AM(PM)**

34(76) AM(PM) Peak Hour Volumes





LEGEND

- Traffic lanes (arrow symbol)
- All Way Stop (stop sign symbol)
- Roundabout (diamond symbol)
- Stop sign control (stop sign symbol)
- Signalized Intersection (signal symbol)

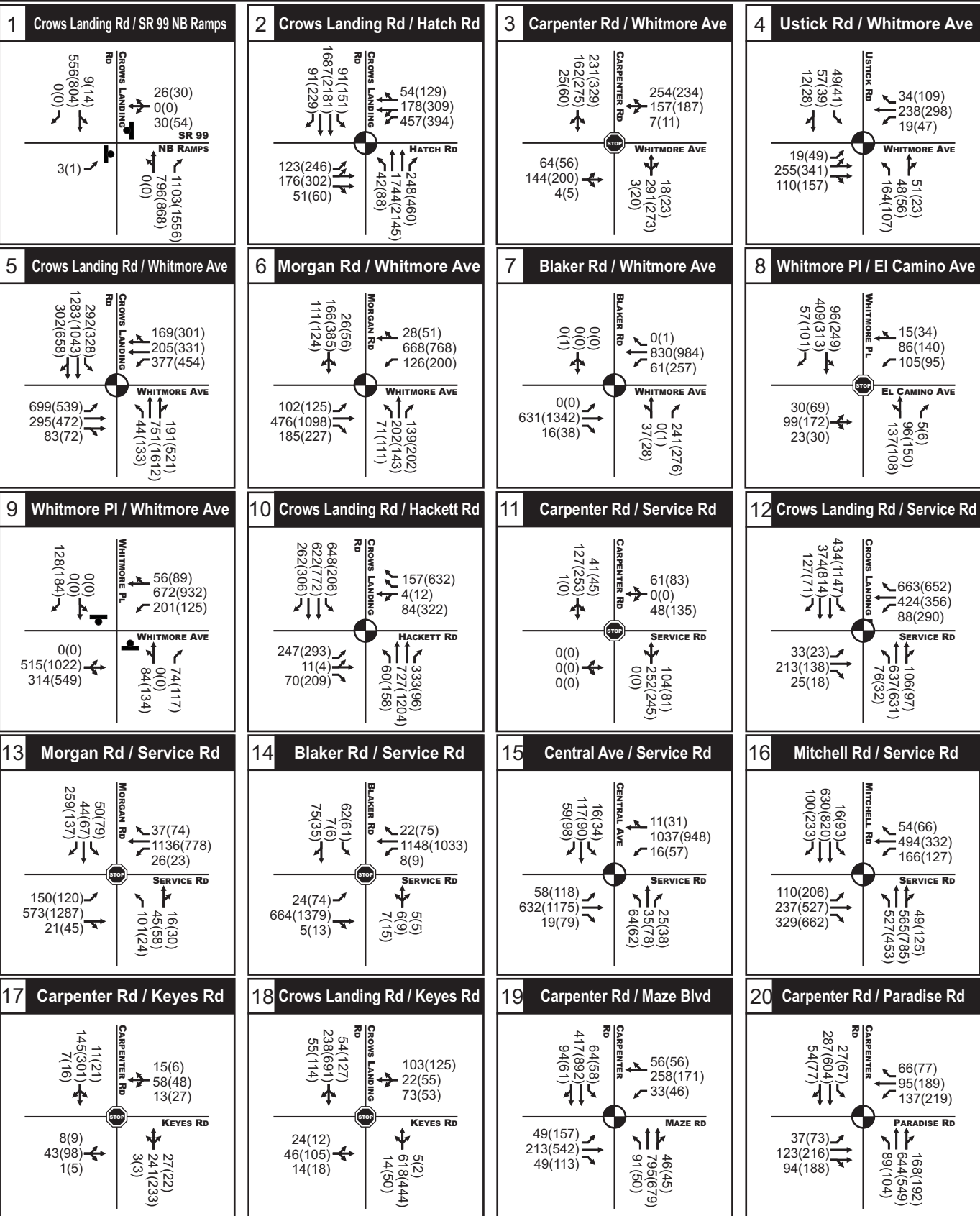
34(76) AM(PM) Peak Hour Volumes

Dowling Associates, Inc.
 Transportation Engineering • Planning • Research • Education



*West Ceres Specific Plan
 Traffic Impact Analysis*

**Figure 6 (Cont.)
 Project Only Peak
 Hour Volume AM(PM)**



LEGEND

- Traffic lanes
- Stop sign control
- All Way Stop
- Signalized Intersection

34(76) AM(PM) Peak Hour Volumes

Dowling Associates, Inc.

Transportation Engineering • Planning • Research • Education

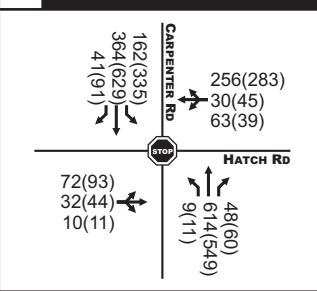


Not to Scale

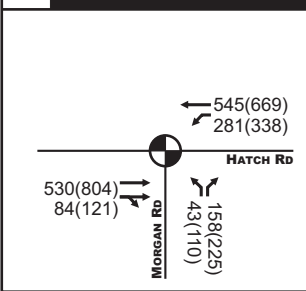
*West Ceres Specific Plan
Traffic Impact Analysis*

**Existing plus Project
Lane Geometry & Peak Hour
Volume AM(PM)**

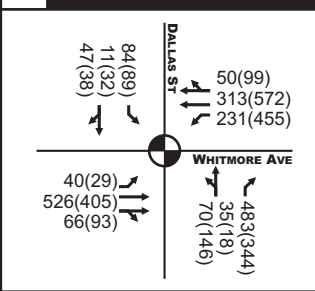
21 Carpenter Rd / Hatch Rd



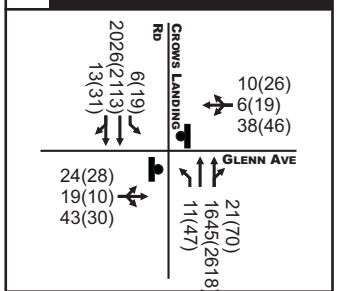
22 Morgan Rd / Hatch Rd



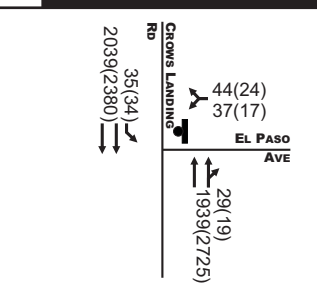
23 Dallas St / Whitmore Ave



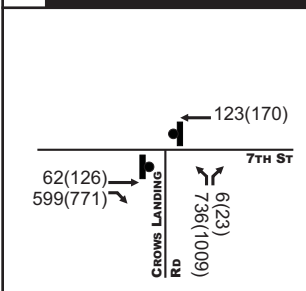
24 Crows Landing Rd / Glenn Ave



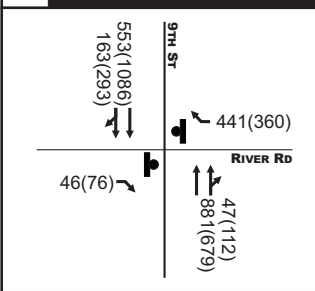
25 Crows Landing Rd / El Paso Ave



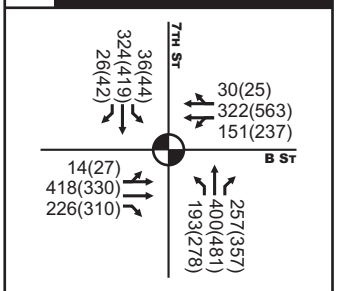
26 Crows Landing Rd / 7th St



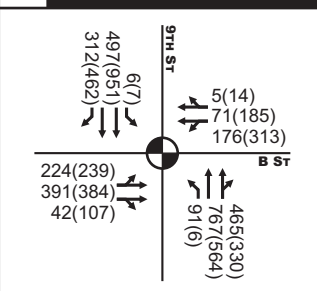
27 9th St / River Rd



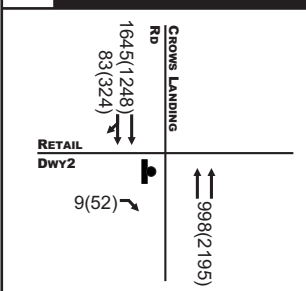
28 7th St / B St



29 9th St / B St



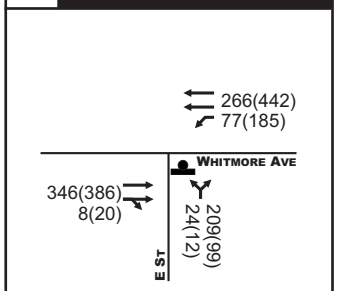
101 Crows Landing Rd / Retail Dwy 2



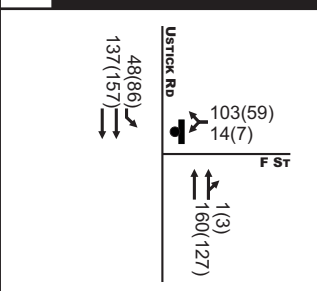
102 Retail Dwy 1 / Whitmore Ave



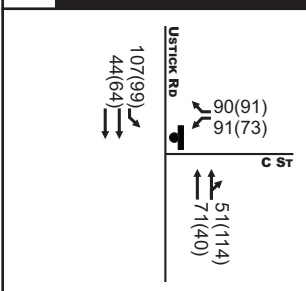
103 E St / Whitmore Ave



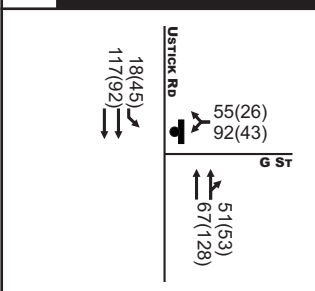
104 Ustick Rd / F St



105 Ustick Rd / C St



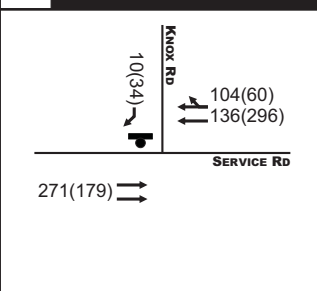
106 Ustick Rd / G St



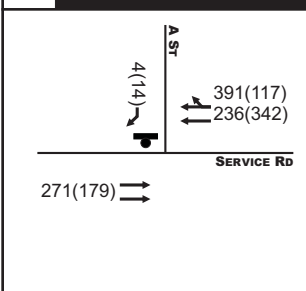
107 H St / Service Rd



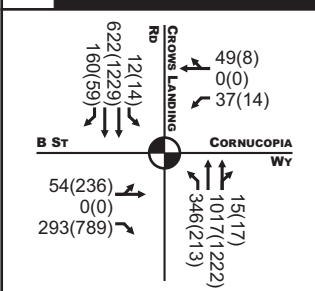
108 Knox Rd / Service Rd



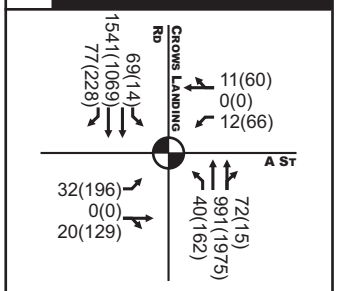
109 A St / Service Rd



110 Crows Landing Rd / Cornucopia Wy



111 Crows Landing Rd / A St



LEGEND

- Traffic lanes
- Stop sign control
- All Way Stop
- Signalized Intersection

34(76) AM(PM) Peak Hour Volumes

Dowling Associates, Inc.

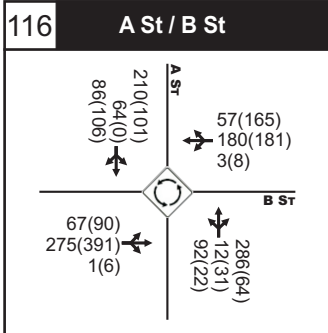
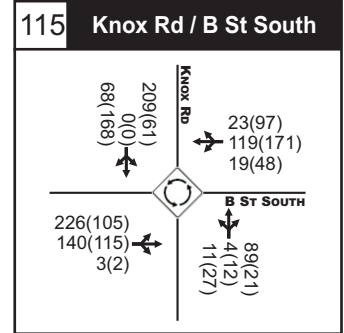
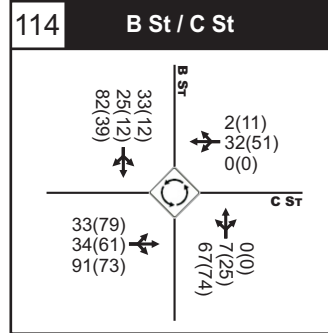
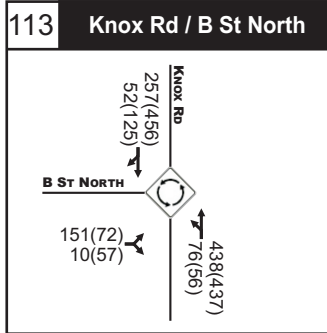
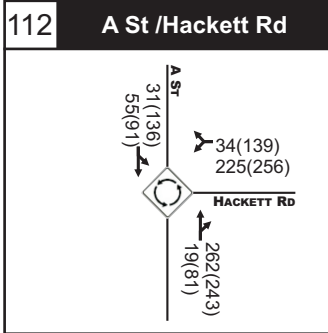
Transportation Engineering • Planning • Research • Education



Not to Scale

*West Ceres Specific Plan
Traffic Impact Analysis*

**Existing plus Project
Lane Geometry & Peak Hour
Volume (Cont.) AM(PM)**



LEGEND

- Traffic lanes
- All Way Stop
- Roundabout
- Stop sign control
- Signalized Intersection

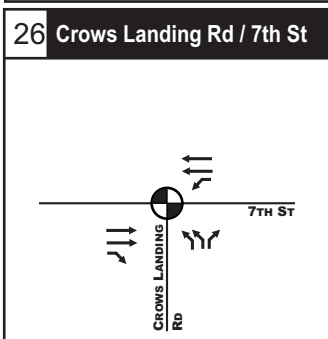
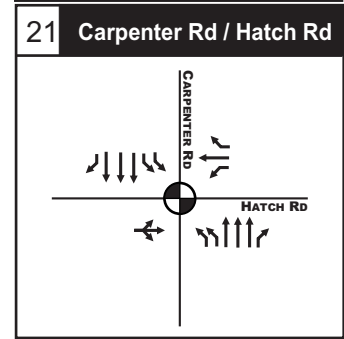
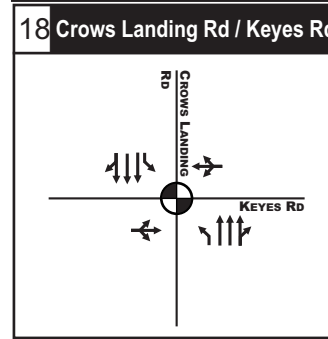
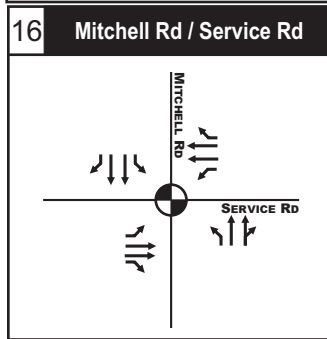
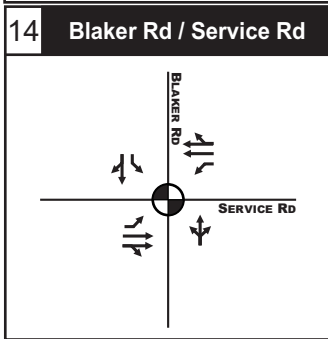
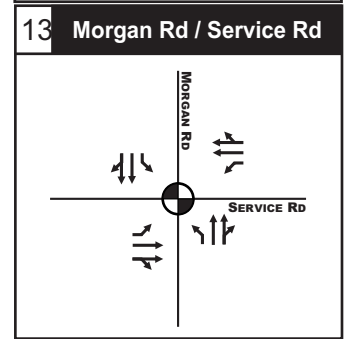
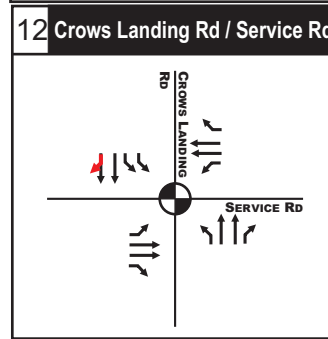
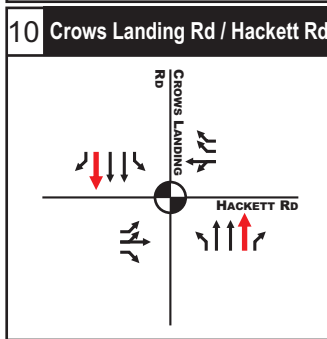
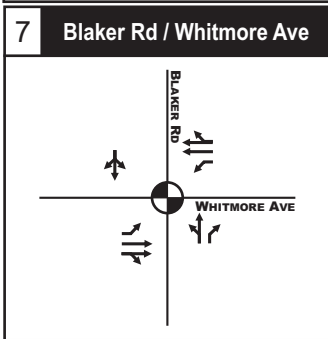
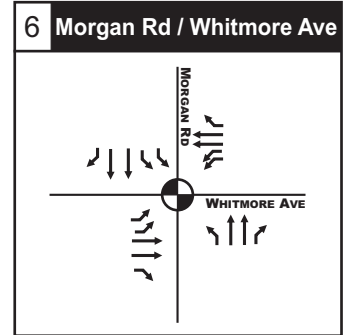
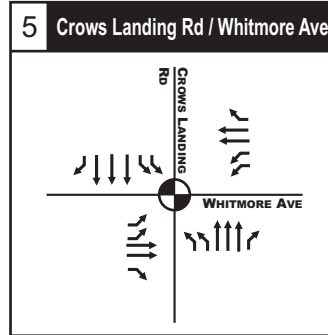
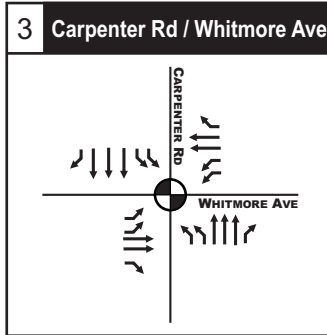
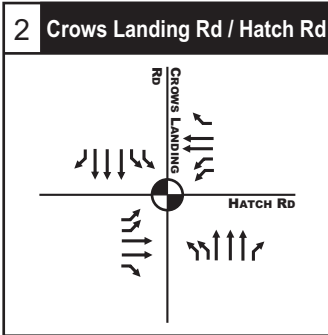
34(76) AM(PM) Peak Hour Volumes



Dowling Associates, Inc.
 Transportation Engineering • Planning • Research • Education



*West Ceres Specific Plan
 Traffic Impact Analysis*

**Existing plus Project
 Lane Geometry & Peak Hour
 Volume (Cont.) AM(PM)**

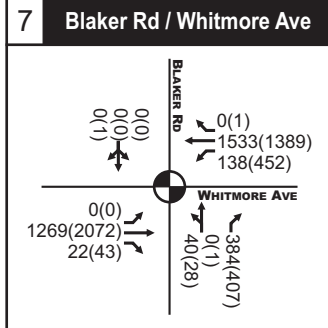
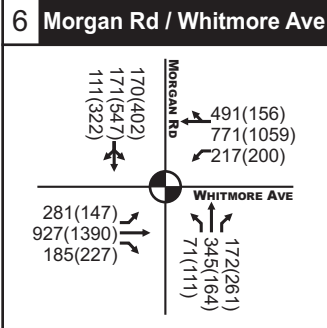
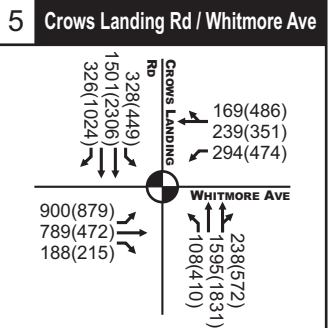
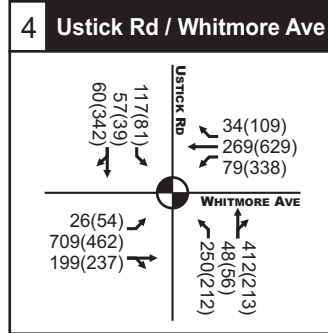
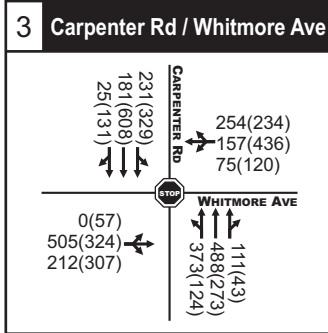
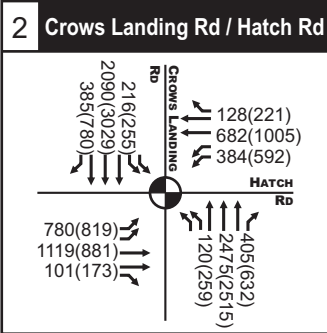
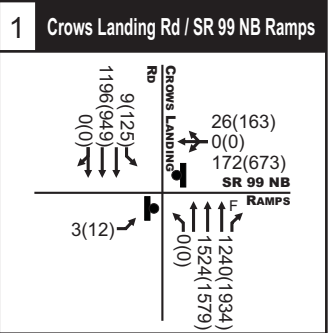


- LEGEND**
-  Suggested Mitigation
 -  Suggested Signalization

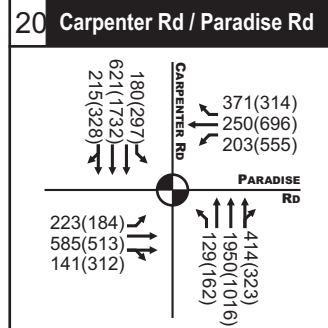
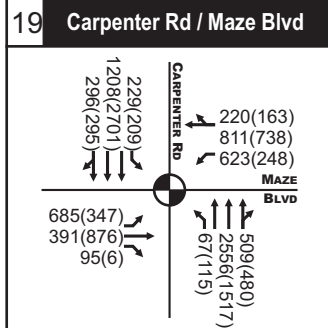
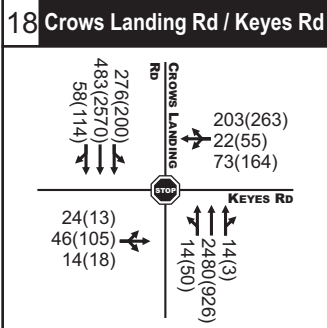
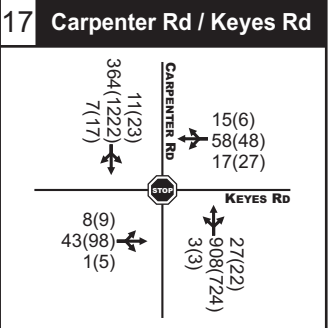
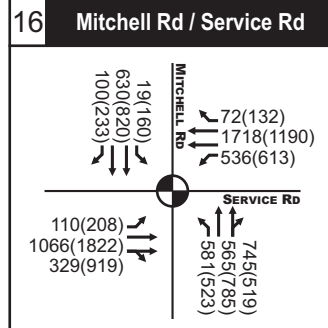
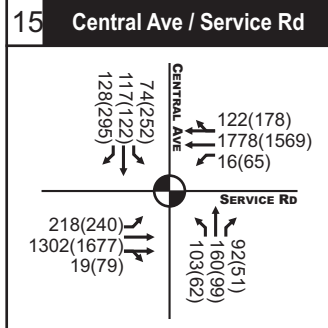
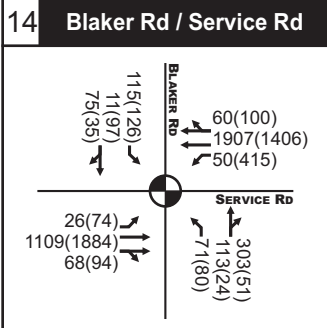
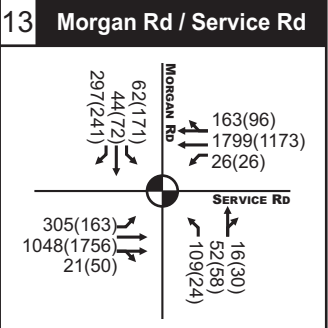
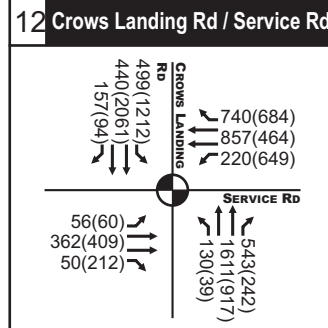
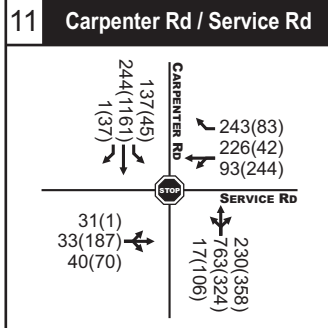
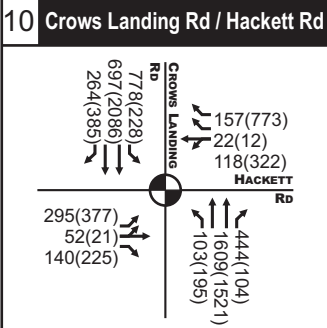
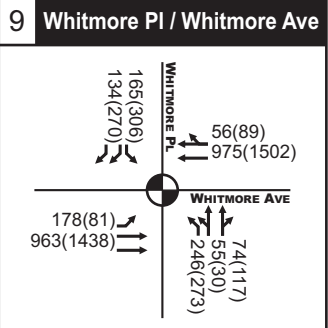


*West Ceres Specific Plan
Traffic Impact Analysis*

**Existing plus Project Mitigation
Lane Geometry & Peak Hour
Volume AM(PM)**



Does Not Exist under this Scenario



LEGEND

Traffic lanes All Way Stop

Stop sign control Signalized Intersection

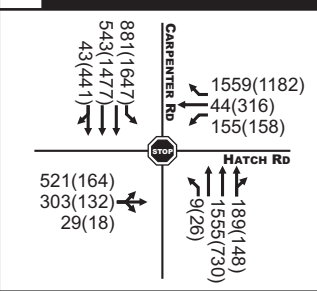


West Ceres Specific Plan
Traffic Impact Analysis

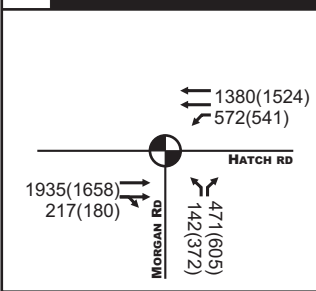
**Cumulative plus Project
Lane Geometry & Peak Hour
Volume AM(PM)**

34(76) AM(PM) Peak Hour Volumes

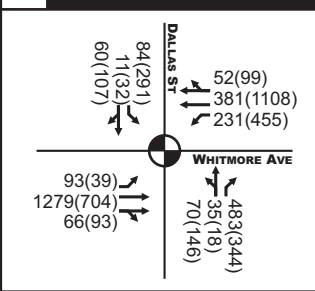
21 Carpenter Rd / Hatch Rd



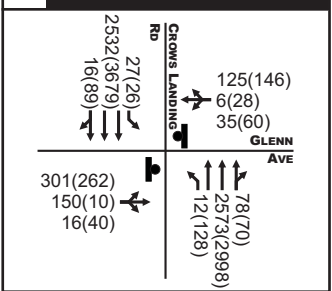
22 Morgan Rd / Hatch Rd



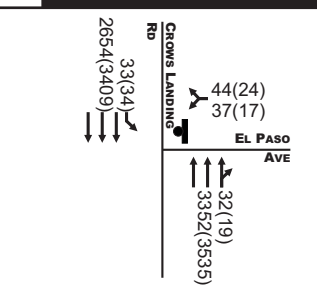
23 Dallas St / Whitmore Ave



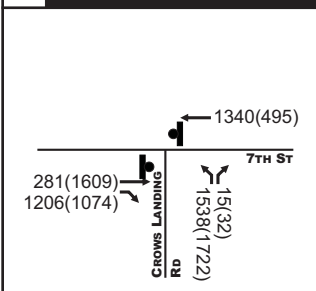
24 Crows Landing Rd / Glenn Ave



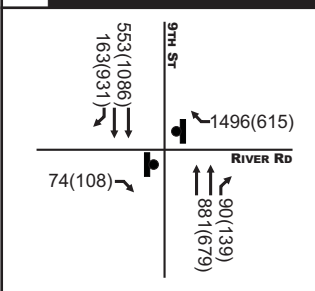
25 Crows Landing Rd / El Paso Ave



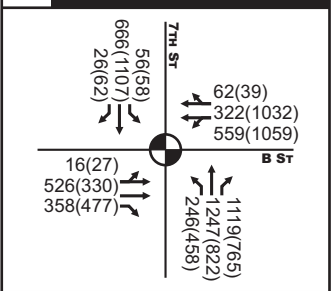
26 Crows Landing Rd / 7th St



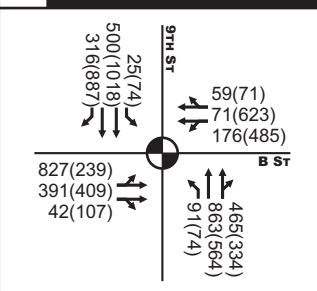
27 9th St / River Rd



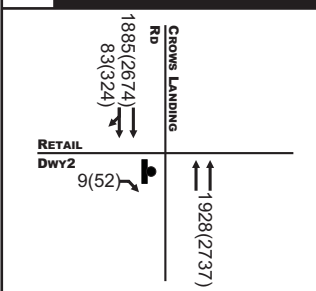
28 7th St / B St



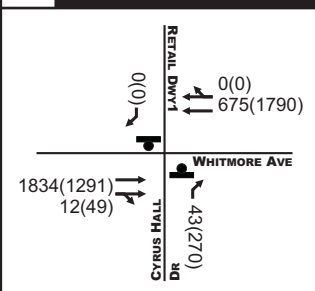
29 9th St / B St



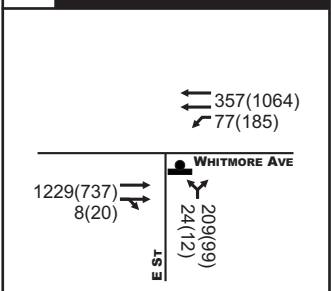
101 Crows Landing Rd / Retail Dwy 2



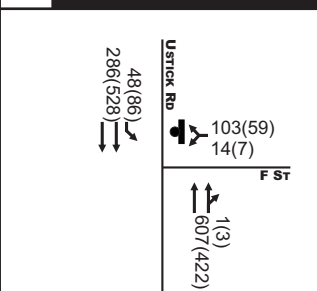
102 Retail Dwy 1 / Whitmore Ave



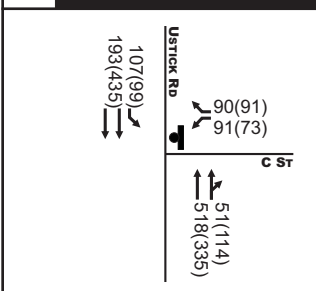
103 E St / Whitmore Ave



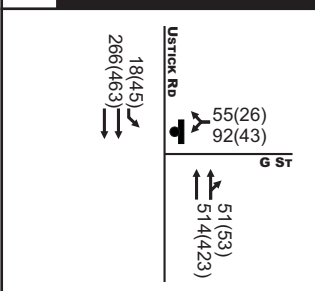
104 Ustick Rd / F St



105 Ustick Rd / C St



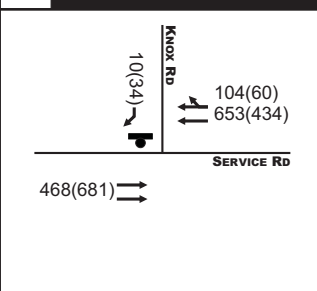
106 Ustick Rd / G St



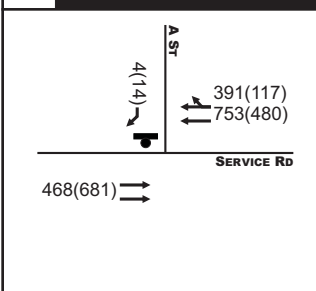
107 H St / Service Rd



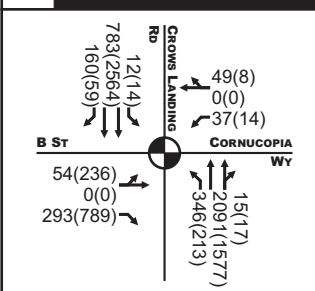
108 Knox Rd / Service Rd



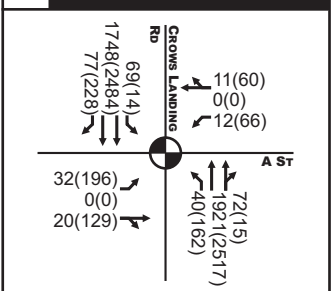
109 A St / Service Rd



110 Crows Landing Rd / Cornucopia Wy



111 Crows Landing Rd / A St



LEGEND

Traffic lanes

Stop sign control

All Way Stop

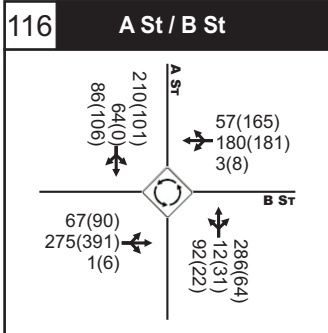
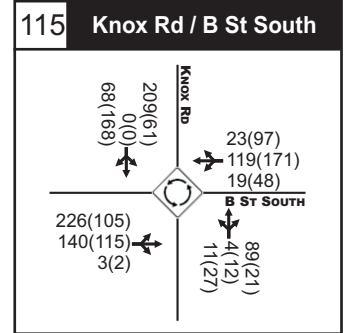
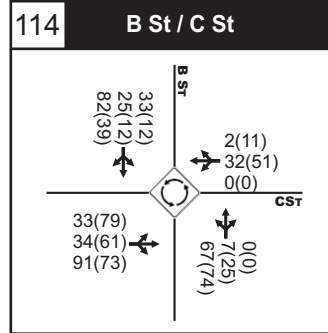
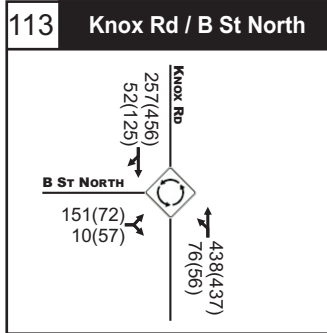
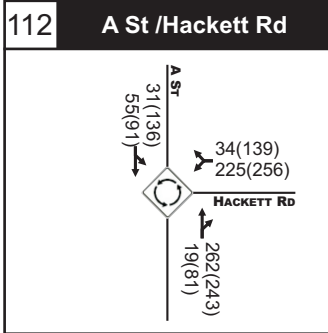
Signalized Intersection

N
W E
S

Not to Scale

West Ceres Specific Plan
Traffic Impact Analysis

**Cumulative plus Project
Lane Geometry & Peak Hour
Volume (Cont.) AM(PM)**



LEGEND

- Traffic lanes
- Stop sign control
- All Way Stop
- Signalized Intersection
- Roundabout

34(76) AM(PM) Peak Hour Volumes

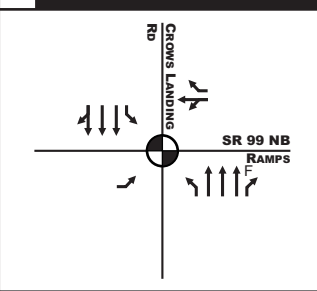
Dowling Associates, Inc.
 Transportation Engineering • Planning • Research • Education



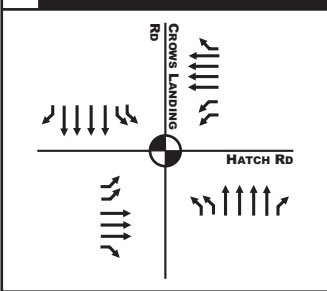
*West Ceres Specific Plan
 Traffic Impact Analysis*

**Cumulative plus Project
 Lane Geometry & Peak Hour
 Volume (Cont.) AM(PM)**

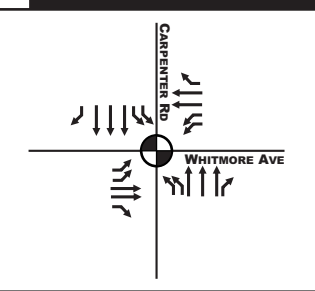
1 Crows Landing Rd / SR 99 NB Ramps



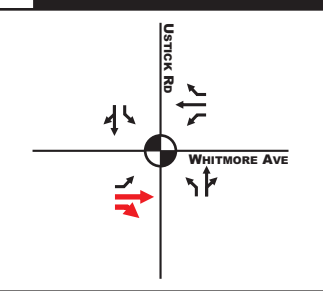
2 Crows Landing Rd / Hatch Rd



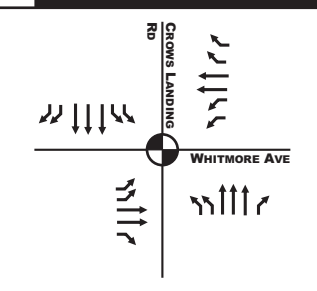
3 Carpenter Rd / Whitmore Ave



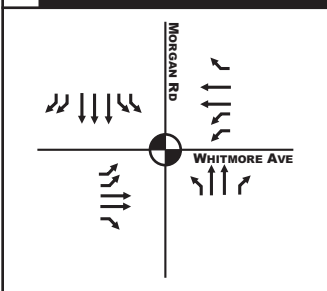
4 Ustick Rd / Whitmore Ave



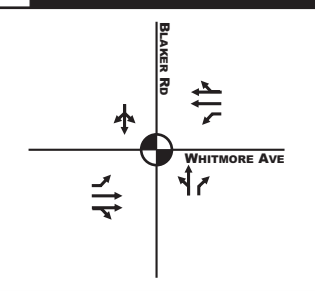
5 Crows Landing Rd / Whitmore Ave



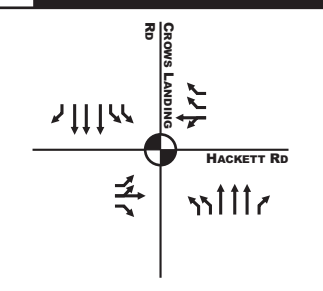
6 Morgan Rd / Whitmore Ave



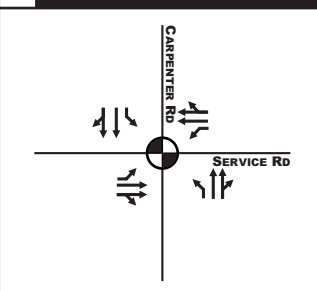
7 Blaker Rd / Whitmore Ave



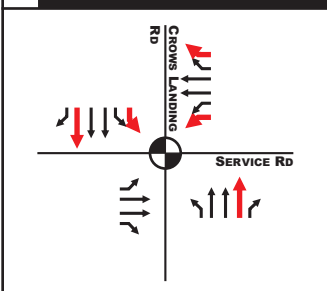
10 Crows Landing Rd / Hackett Rd



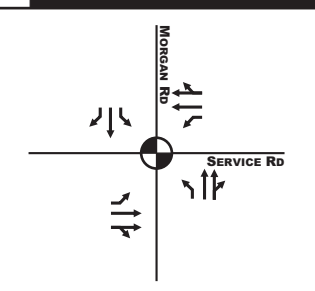
11 Carpenter Rd / Service Rd



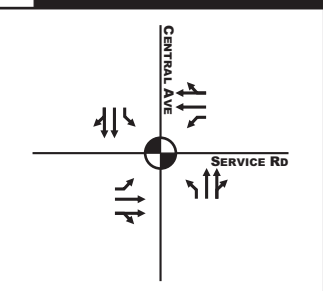
12 Crows Landing Rd / Service Rd



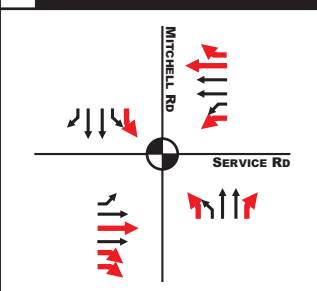
13 Morgan Rd / Service Rd



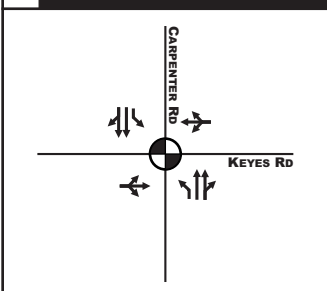
15 Central Ave / Service Rd



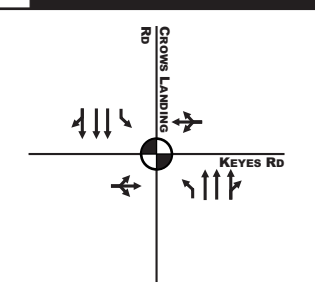
16 Mitchell Rd / Service Rd



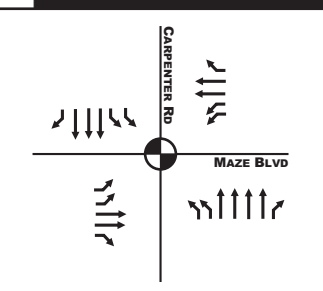
17 Carpenter Rd / Keyes Rd



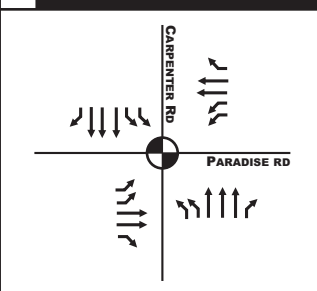
18 Crows Landing Rd / Keyes Rd



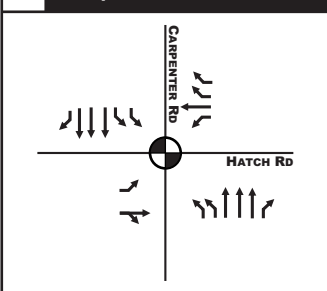
19 Carpenter Rd / Maze Blvd



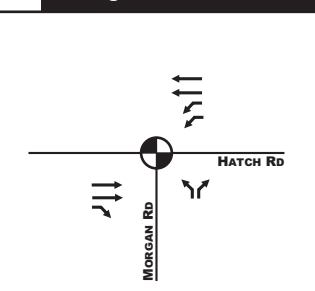
20 Carpenter Rd / Paradise Rd



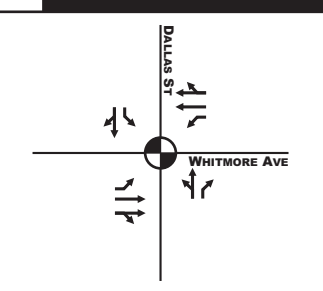
21 Carpenter Rd / Hatch Rd



22 Morgan Rd / Hatch Rd



23 Dallas St / Whitmore Ave



LEGEND

-  Suggested Mitigation
-  Suggested Signalization



Not to Scale

West Ceres Specific Plan
Traffic Impact Analysis

Cumulative plus Project Mitigation
Lane Geometry & Peak Hour
Volume AM(PM)

