Traffic Study

City of Haysville

The purpose of traffic counts is to gauge the amount of usage on roads in order to focus on areas needing improvement. Improvement can be necessary due to congestion, deterioration or new subdivision growth. Discussion of traffic counts follows.

Traffic Volume Counts - 2007

Traffic volume counts were taken at 31 different locations in Haysville during the time period of July 24, 2007 to August 20, 2007 to ascertain the average number of vehicles utilizing the various streets under study. Extended day counts were made at four locations; on S. Broadway north of 79th Street South, on East Grand Avenue to the east of Jane Street, on West Grand Avenue at Stearns, and on North Main Street north of Karla Avenue. Twenty-seven "24 Hour" counts were taken at various places on the streets system and these locations are shown graphically on the Traffic Count Map and are summarized in the Traffic Volume Table on the following page. The "24 Hour" counts were taken on week days since traffic volumes on Saturday and Sundays are not indicative of average vehicular usage.

The data in Table 1 shows that S. Jane St. had the highest 24 hour Average Daily Traffic (ADT). The collector street carries traffic from two apartment complexes and two cul-de-sacs. It serves as an alternate route, along with S. Marlen St., for a housing subdivision. Mabel St., which services a residential area and is the main route to Plagens-Carpenter Sports Complex, had the lowest ADT.

The data in Table 2 shows that E. Grand Ave had the highest ADT with the east and west bound traffic being close in vehicle counts. The N. Main St. count was interesting since the ADT itself was not irregular but the direction of traffic flow is highly weighted to north bound traffic. One could conclude a high volume of workforce use N. Main to exit the City in the morning but use an alternate route, such as Broadway or the Kansas Turnpike, to return home.

The typical peak hours for the 24 hours counts and extended day counts fell from 5:00 p.m. to 6:00 p.m. The majority of all peak hours fell between 4:00 p.m. and 8:00 p.m.

Street Standards

In general, the width of City streets shall be determined by the platted right-of-way. Widths may occasionally vary to match existing conditions or to meet special requirements of a particular site. Width requirements vary with different municipalities and their zoning regulations however typical lane width is 11 feet with a 2.5 foot curb.

Arterial

Roadway Width – 48 feet and up
Street Right-of-Way – 100 feet, except that 150 feet of the right-of-way will be required within 350 feet from the intersection of the centerline of an arterial street with any other street.

The principal function of an arterial street is to move traffic. It acts as a traffic carrier between cities or various sections of the City. Access to abutting properties is a secondary function and is discouraged.

Collector

Roadway Width – 35 feet
Street Right-of-Way – 80 feet

The principal function of a collector street is to gather traffic from local streets and carry it to the arterial system. The collector serves many local and neighborhood activities such as school, churches, and parks. It should not carry through traffic.

Local, Residential

Single, two, three and four-family dwellings on a continuous street more than 3 blocks in length
Roadway Width – 35 feet
Street Right-of-Way – 64 feet

Street to be no more than 3 blocks in length with a maximum of 24 single-family lots (12 each side) per block.
Roadway Width – 29 feet
Street Right-of-Way – 58 feet

Street to be no more than 1 block in length with a maximum of 24 single-family lots (12 each side). Cul-de-sacs no longer than 300 feet to the center of turnaround radius.
Roadway Width – 21 feet
Street Right-of-Way – 50 feet

Local, Business/Commercial/Industrial

Roadway Width – 35 feet
Street Right-of-Way – 64 feet

The function of local streets is to provide access to abutting property. The local street is to provide no through traffic carrying capabilities. The street can provide for some parking in residential areas without discouraging local traffic movements. Local streets can be lanes, drives, circles, boulevards, or any other designation that might be given to such streets.

Previous Transportation Plan

The previous transportation plan that conducted traffic counts and analyzed future needs was provided by Professional Engineering Consultants, P.A. (P.E.C.) in February of 1988. The study was based around the projected population of 15,000 people by the year of 2000. The 2000 Census gave an official count of 8,502 population. The population has since been confirmed to 10,029 in July of 2006. Population growth has not happened at the rate anticipated by Haysville Planning Commission, however, many anticipated needs from the study occurred and proposed solutions were enacted.

In P.E.C.'s 1988 study one of the long range needs mentioned was the addition of a second railroad crossing. When the railroad overpass was installed at Main and Grand a second overpass was created south of the Wichita Valley Center Floodway. With the completion of the Haysville Senior Center in Fall 2008, improvements will be made to Karla Avenue. The road will be 31 feet wide, back to back, with a 6" reinforced crushed concrete base and 6" concrete surface. Once completed the road will be 435 feet from N. Main to the railroad overpass. Future subdivision growth of the River Forest Addition would complete the street, connecting it to the existing portion of Karla. The need for a collector facility will also be met when N. Delos is extended to intersect with Karla.

Future Traffic Count Needs

It has been determined by City Staff that consistently updating traffic counts is necessary to help promote growth commercially, evaluate street improvement and replacement needs to allow for precise budgeting, and to project future needs of the City's transportation system. Counts will be done on a three year cycle with only certain areas being considered yearly. Vehicular traffic changes will be more noticeable when data is available on a three year rotation and comparisons can be made.

The 2008 traffic counts will focus on areas of the Industrial Parks, commercial businesses, and general residential areas. Counts will be done during the school year to give the best representation of average vehicular usage since schools are among the largest traffic generators within the community.

Traffic Volume Counts - 2008

Traffic volume counts were taken at 37 different locations in Haysville during the time period of April 22, 2008 to June 24, 2008 to ascertain the average number of vehicles utilizing the various streets under study. Extended day counts were made at four locations; on S. Main near the Timber Creek Estates Addition, on S. Main at Grand Avenue, on N. Main near the Homeland grocery store, and Mabel. Thirty three "24 Hour" counts were taken at various places on the streets system and these locations are shown graphically on the Traffic Count Map and are summarized in the Traffic Volume Table on the following page. The "24 Hour" counts were taken on week days since traffic volumes on Saturday and Sundays are not indicative of average vehicular usage. An attempt was made to obtain counts during the school year since it would give the best representation of average vehicular use of the streets.

The data in Table 3 shows that Fager Dr. had the highest 24 hour Average Daily Traffic (ADT). The street is currently classified at a residential street, however it serves as a collector street to traffic in the Hillcrest Additions. It also gives access to Doug's Auto Repair and the Hillcrest Strip Center, which houses True Value, Pam's Diner, and other intermittent businesses. The portion of Karla which serves as a route from Hemphill to the Karla Courts had the lowest ADT. A look at counts along Meridian shows that a fairly equal amount of people are using 2nd and 4th Street at the Meridian intersection, with peak hours during school time travel.

The data in Table 4 shows results from the seven day traffic counts. Counters were placed on south Main St. at two locations and data supports the idea that the vehicles are accessing areas such as the Historic District rather than using the street as a means to reach 79th Street. The ADT on Mabel has increased greatly from 2007 figures found in Table 1. This is mostly due in part to a seven day count that records activity from Plagens-Carpenter events

The typical peak hours for the 24 hours counts and extended day counts fell from 5:00 p.m. to 6:00 p.m. Counts also remained high from 4:00 p.m. to 5:00 p.m. The majority of all peak hours fell between 3:00 p.m. and 6:00 p.m.

Future Traffic Count Needs

It has been determined by City Staff that consistently updating traffic counts is necessary to help promote growth commercially, evaluate street improvement and replacement needs to allow for precise budgeting, and to project future needs of the City's transportation system. Counts will be done on a three year cycle with only certain areas being considered yearly. Vehicular traffic changes will be more noticeable when data is available on a three year rotation and comparisons can be made.

The 2009 traffic counts will focus on remaining areas of uncollected information. Counts will be done during the school year to give the best representation of average

vehicular usage since schools are among the largest traffic generators within the community.

Future Transportation Needs

The City should continually work to create additional Hike and Bike Path opportunities for the citizens of Haysville. The collection of data from street vehicular usage, in areas currently lacking walking/biking opportunities, can be used to determine areas which would benefit from sidewalks. Using data from the 2008 traffic counts it is visible that high volumes of traffic leave the Peachwood Additions during morning hours and afternoon hours that coincide with the arrival and departure of school. This could indicate the need for Hike and Bike Path along the east side of Meridian. The Peachwood Additions are well established and likely to have a wide variety of school aged children. Data from the Country Lakes Addition shows spikes in vehicular traffic during morning and evening hours which coincide more with typical work hours. As the Country Lakes Additions become more established there will be an increase in school aged children and a demand for Hike and Bike Path along the west side of Meridian.

Traffic Volume Counts - 2009

Traffic volume counts were taken at 28 different locations in Haysville from April 22, 2009 to May 12, 2009 to ascertain the average number of vehicles utilizing the various streets under study. Extended day counts were made at eight locations; the intersection of North Main & West Grand, the intersection of Meridian & Grand, and on South Jane Street. Twenty "24 Hour" counts were taken at various places on the streets system and these locations are shown graphically on the Traffic Count Map and are summarized in the Traffic Volume Table on the following page. The "24 Hour" counts were taken on week days since traffic volumes on Saturday and Sundays are not indicative of average vehicular usage. Counts were obtained during the school year to give the best representation of average vehicular use of the streets.

The counts were arranged in groups to give the best representation of traffic flow for a specific neighborhood. For example, in the Timberlane subdivision, Park, Peachtree, Mimosa, and Linden were done in coordination with each other to more accurately gauge which streets may be collectors to other areas.

The data in Table 6 shows results from the extended traffic counts. There are obvious distinctions between which way traffic flows on the counts done on the intersections. Streets leading to residential had lower counts than the streets that led to educational institutions and commercial businesses.

The typical peak hours for the 24 hours counts fell from 3:00 p.m. to 4:00 p.m. Extended counts showed traffic peak hours between 4:00 p.m. and 6:00 p.m. The majority of all peak hours fell between 3:00 p.m. and 6:00 p.m.

Future Traffic Count Needs

It has been determined by City Staff that consistently updating traffic counts is necessary to help promote growth commercially, evaluate street improvement and replacement needs to allow for precise budgeting, and to project future needs of the City's transportation system. It is the City's goal to do counts on a three year cycle with certain areas being considered yearly. Vehicular traffic changes will be more noticeable when data is available on a three year rotation and comparisons can be made.

The 2010 traffic counts would begin the three year rotation over again. It is unknown whether traffic counts will be obtained in 2010 due to financial constraints and deteriorating equipment. Due to the pace of growth Haysville experiences, a delay in obtaining new counts should have very little impact.

Future Transportation Needs

The City should continually work to create a system for preventative street maintenance, repairs, and street replacement. In order to stretch the life of the streets

the City has routinely performed patch work and has sealed the streets. While the City tries very persistently to maintain and improve the streets when possible, lack of funds tend to be a continual problem. It is important that the City continue to look for ways to prioritize and continue with a street plan to help optimize the existing transportation system for users.

Traffic Volume Counts - Selected Locations
Haysville, Kansas - 2007

24 Hour Traffic Counts **TABLE 1**

Location of Traffic Count	Street Class	Average Daily Traffic	Peak Hours	Dates of Count
Alexander West of Ivah	R	419	4:00 - 5:00 PM	7/26/2007 - 7/30/2007
Alexander North/Fager	R	649	5:00 - 6:00 PM	7/24/2007 - 7/25/2007
Anita	R	923	5:00 - 6:00 PM	8/13/2007 - 8/14/2007
Baughman	C	1,108	8:00 - 9:00 AM; 4:00 - 5:00 PM	7/26/2007 - 7/27/2007
Blossum Ave.	R	520	6:00 - 7:00 PM	8/14/2007 - 8/15/2007
Chelsea	C	896	7:00 - 8:00 PM	8/14/2007 - 8/15/2007
Clinton Ave.	R	379	7:00 - 8:00 PM	7/26/2007 - 7/27/2007
Corey	R	777	4:00 - 5:00 PM	8/07/2007 - 8/08/2007
Cottonwood Lane	R	518	5:00 - 6:00 PM	8/14/2007 - 8/15/2007
N. Delos	R	838	3:00 - 4:00 PM	8/09/2007 - 8/10/2007
N. Jane	C*	915	4:00 - 5:00 PM	8/15/2007 - 8/16/2007
S. Jane	C	2,282	7:00 - 8:00 AM	8/16/2007 - 8/17/2007
Kay Avenue	C*	1,538	3:00 - 4:00 PM	8/16/2007 - 8/17/2007
Mabel	R	179	4:00 - 5:00 PM	8/07/2007 - 8/08/2008
S. Main Street	A	967	3:00 - 4:00 PM	8/09/2007 - 8/10/2007
N. Marlen	C*	1,028	5:00 - 6:00 PM	8/08/2007 - 8/09/2007
S. Marlen	R	913	6:00 - 7:00 PM	8/08/2007 - 8/09/2007
Pleasant	C	1,279	4:00 - 5:00 PM	8/07/2007 - 8/08/2007
Sandalwood	C*	444	6:00 - 7:00 PM	7/26/2007 - 7/27/2007
Sarah Lane	C*	1,558	4:00 - 5:00 PM	7/24/2007 - 7/25/2007
Southbrooke	R	545	2:00 - 3:00 PM	8/14/2007 - 8/15/2007
Spencer	R	255	6:00 - 7:00 PM	8/09/2007 - 8/10/2007
Timberlane	R	548	5:00 - 6:00 PM	7/24/2007 - 7/25/2007
N. Ward Parkway	R	382	5:00 - 6:00 PM	8/08/2007 - 8/09/2007
Wayne	R	855	5:00 - 6:00 PM	8/15/2007 - 8/16/2007
Willow Lane	R	813	5:00 - 6:00 PM	7/24/2007 - 7/25/2007
79th (W. of Meridian)	R	342	4:00 - 5:00 PM	8/14/2007 - 8/15/2007

* KDOT recognized collectors

Extended Day Traffic Counts **TABLE 2**

Location of Traffic Count		Average Daily Traffic	Peak Hours	Dates of Count
S. Broadway	A	6,229	5:00 - 6:00 PM	8/15/2007 - 8/20/2007
E. Grand Avenue	A	10,770	4:00 - 5:00 PM	8/16/2007 - 8/20/2007
		East: 5,721 West: 5,049		
W. Grand Avenue	A	7,806	5:00 - 6:00 PM	7/26/2007 - 8/02/2007
		East: 4,153 West: 3,653		
N. Main Street	A	7,664	5:00 - 6:00 PM	7/24/2007 - 7/27/2007
		North: 6,252 South: 1,412		

Traffic Volume Counts - Selected Locations
Haysville, Kansas - 2008

24 Hour Traffic Counts **TABLE 3**

Location of Traffic Count	Street Class	Average Daily Traffic	Peak Hours	Dates of Count
Basswood	R	702	6:00 - 7:00 PM	5/13/2008 - 5/14/2008
Cain E. of Broadway	R	452	4:00 - 5:00 PM	5/8/2008 - 5/9/2008
Cain N. of Grand	R	452	4:00 - 5:00 PM	5/8/2008 - 5/9/2008
Campbell	R	1,428	5:00 - 6:00 PM	6/19/2008 - 6/20/2008
Chatta	R	568	5:00 - 6:00 PM	6/17/2008 - 6/18/2008
Country Lakes	R	1,160	5:00 - 6:00 PM	4/25/2008 - 4/26/2008
Delos	R	625	11:00 AM - Noon	5/12/2008 - 5/13/2008
Diedrich	R	467	4:00 - 5:00 PM	5/8/2008 - 5/9/2008
Emmett	R	401	5:00 - 6:00 PM	5/13/2008 - 5/14/2008
Fager at Main St.	R	1,927	5:00 - 6:00 PM	6/19/2008 - 6/20/2008
German	C	1,319	5:00 - 6:00 PM	6/17/2008 - 6/18/2008
Hannah Lane	R	676	4:00 - 5:00 PM	4/23/2008 - 4/24/2008
Hungerford S. of Grand	R	931	8:00 - 9:00 AM	4/28/2008 - 4/29/2008
Hungerford N. of Grand	R	1,541	5:00 - 6:00 PM	6/23/2008 - 6/24/2008
Hungerford N. of Sarah Lane	R	1,053	7:00 - 8:00 AM	5/12/2008 - 5/13/2008
Karla	R	219	3:00 - 4:00 PM	6/23/2008 - 6/24/2008
Lamar N. of Grand	R	1,592	3:00 - 4:00 PM	5/12/2008 - 5/13/2008
Lamar S. of Grand	R	454	4:00 - 5:00 PM	5/7/2008 - 5/8/2008
Mimosa	R	1,592	4:00 - 5:00 PM	5/12/2008 - 5/13/2008
Peach	R	498	4:00 - 5:00 PM	6/17/2008 - 6/18/2008
Pirner	R	447	4:00 - 5:00 PM	5/8/2008 - 5/9/2008
Ranger	R	1,533	5:00 - 6:00 PM	6/17/2008 - 6/18/2008
Saddle Brooke	R	1,100	11:00 AM - Noon	6/19/2008 - 6/20/2008
Sarah Lane	R	1,375	2:00 - 3:00 PM	6/19/2008 - 6/20/2008
Stewart	R	1,194	5:00 - 6:00 PM	6/17/2008 - 6/18/2008
Trout	R	455	2:00 - 3:00 PM	5/7/2008 - 5/8/2008
Van Arsdale	R	514	5:00 - 6:00 PM	5/7/2008 - 5/8/2008
Western	R	923	5:00 - 6:00 PM	6/23/2008 - 6/24/2008
Wire	R	713	5:00 - 6:00 PM	6/23/2008 - 6/24/2008
2nd Street at Meridian	C	1,592	3:00 - 4:00 PM	5/1/2008 - 5/2/2008
2nd Street at Van Arsdale	C	143	3:00 - 4:00 PM	6/23/2008 - 6/24/2008
4th Street at Meridian	C	1,516	3:00 - 4:00 PM	5/1/2008 - 5/2/2008
4th Street at Turkle	C	561	4:00 - 5:00 PM	5/1/2008 - 5/2/2008

7 Day Traffic Counts **TABLE 4**

Location of Traffic Count		Average Daily Traffic	Peak Hours	Dates of Count
Mabel	R	1,060	7:00 - 8:00 PM	6/17/2008 - 6/24/2008
N. Main Street	A	8,361	5:00 - 6:00 PM	4/22/2008 - 4/29/2008
near Homeland				
S. Main Street	R	1,617	5:00 - 6:00 PM	6/17/2008 - 6/24/2008
at Grand				
S. Main Street	R	790	3:00 - 4:00 PM	5/7/2008 - 5/14/2008
N. of Timber Creek Estates				

Traffic Volume Counts - Selected Locations
Haysville, Kansas - 2009

24 Hour Traffic Counts **TABLE 5**

Location of Traffic Count	Street Class	Average Daily Traffic	Peak Hours	Dates of Count
Alice	R	811	3:15 - 4:15 PM	4/28/2009 - 4/29/2009
Baughman	R	379	3:30 - 4:30 PM	4/28/2009 - 4/29/2009
Champion	R	610	3:30 - 4:30 PM	4/16/2009 - 4/17/2009
N. Delos near Grand	C	1,703	7:30 - 8:30 PM	4/23/2009 - 4/24/2009
N. Delos near River Forest	C	711	5:00 - 6:00 PM	4/23/2009 - 4/24/2009
Diedrich	R	248	8:30 - 9:30 PM	5/4/2009 - 5/5/2009
Freeman	R	371	3:00 - 4:00 PM	4/22/2009 - 4/23/2009
Hollywood	R	362	11:00 a.m. - Noon	5/7/2009 - 5/8/2009
N. James	R	924	5:00 - 6:00 PM	4/22/2009 - 4/23/2009
Jubilee	R	166	2:30 - 3:30 PM	4/16/2009 - 4/17/2009
Karla	R	877	3:00 - 4:00 PM	4/23/2009 - 4/24/2009
Linden	R	1,065	3:00 - 4:00 PM	4/14/2009 - 4/15/2009
Loring	R	267	3:00 - 4:00 PM	4/16/2009 - 4/17/2009
Mimosa	R	100	3:00 - 4:00 PM	4/23/2009 - 4/24/2009
Moy	R	106	3:30 - 4:30 PM	4/22/2009 - 4/23/2009
Park	R	13	2:45 - 3:45 PM	4/23/2009 - 4/24/2009
Peachtree	R	51	5:15 - 6:15 PM	4/23/2009 - 4/24/2009
S. Sunnyside	R	34	4:30 - 5:30 PM	5/4/2009 - 5/5/2009
S. Twin Pines	R	37	3:45 - 4:45 PM	5/4/2009 - 5/5/2009
65th Street	R	31	2:45 - 3:45 PM	5/7/2009 - 5/8/2009

7 Day Traffic Counts **TABLE 6**

Location of Traffic Count		Average Daily Traffic	Peak Hours	Dates of Count
S. Jane	R	2,207	5:00 - 6:00 PM	5/5/2009 - 5/11/2009
Main & Grand	A	7,808	4:00 - 5:00 PM	4/14/2009 - 4/21/2009
north of intersection				
Main & Grand	C	2,137	5:15 - 6:15 PM	4/14/2009 - 4/21/2009
south of intersection				
Main & Grand	A	10,746	4:45 - 5:45 PM	4/14/2009 - 4/21/2009
east of intersection				
Main & Grand	A	10,355	5:00 - 6:00 PM	4/14/2009 - 4/21/2009
west of intersection				
Meridan & Grand	A	5,688	3:30 - 4:30 PM	5/5/2009 - 5/12/2009
north of intersection				
Meridian & Grand	A	5,563	7:15 - 8:15 AM	5/5/2009 - 5/12/2009
south of intersection				
Meridian & Grand	A	6,408	3:15 - 4:15 PM	5/5/2009 - 5/12/2009
east of intersection				