

7/17/2018

TIF Credit Calculation for Lacamas Lake Elementary Frontage

NE 9th Street (now North Shore Blvd.)

Total Distance of 9th = 2600 LF

2018 eligible TIF improvement cost for 9th = $\$2,900,000 * 1.039^7 = \$3,790,000$

2018 eligible TIF improvement credit/fee collection cost per lineal foot = $\$3,790,000 / 2600 \text{ LF} * (0.60 \text{ reduction factor}) = \$875/\text{LF}$ (46' wide)

Credit per lineal foot for 26' of Improvements = $\$875 * (26' / 46') = \$495/\text{LF}$

Total Frontage Improvements Distance on 9th = 1318 LF (STA 14+00 to 27+18)

1318 LF * $\$495/\text{LF} = \$652,410$

NE 232nd Avenue

Total Distance of 232nd = 5400 LF

2018 eligible TIF cost for 232nd = $\$4,700,000 * 1.039^7 = \$6,143,000$

2018 eligible TIF improvement credit/fee collection cost per lineal foot = $\$6,143,000 / 5400 \text{ LF} * (0.60 \text{ reduction factor}) = \683 (46' wide)

Credit per lineal foot for 26' of Improvements = $\$683 * (26' / 46') = \$386/\text{LF}$

Total Proposed Frontage Improvements Distance on 9th = 300 LF (STA 11+00 to 14+00)

300 LF * $\$386/\text{LF} = \$115,800$

Total TIF Credits Eligible = $\$652,410 + \$115,800 = \$768,210$

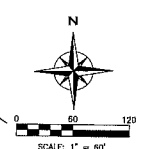
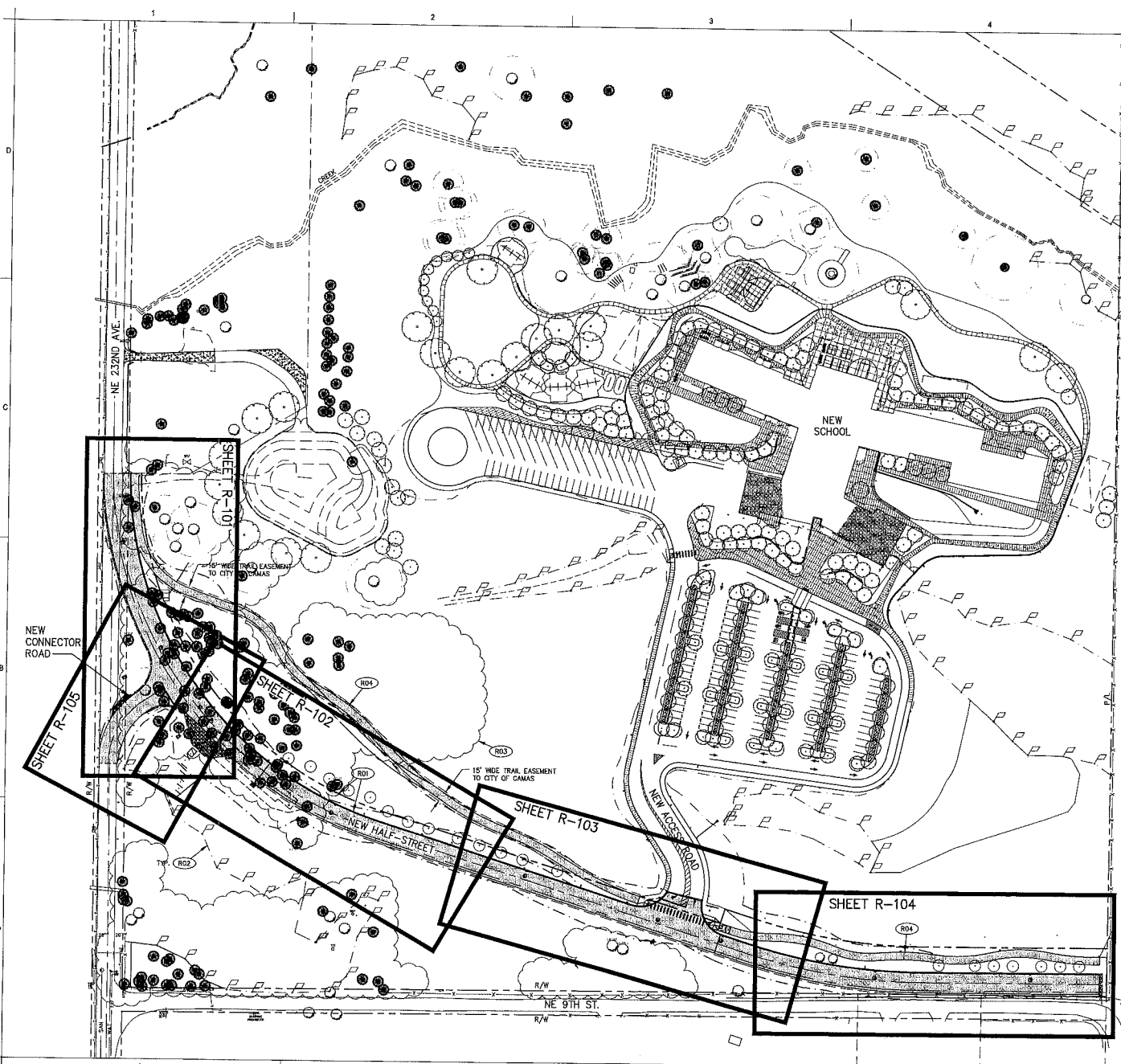
TIF Cost for 104 PM Peak Hour Trips = $\$13,880 * (0.60 \text{ reduction factor}) * 104 \text{ Trips} = \$866,112.$

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Traffic Signal Credits (2018) (NW 16th Ave. & NW Brady Rd.)

2018 eligible TIF for improvements reimbursement = $\$250,000 * 1.039^7 * (0.60) = \$196,050$

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- PUBLIC ROAD PLAN NOTES**
- (R01) NEW HALF-STREET (PHASE 1 OF URBAN ARTERIAL ROADWAY). SEE CITY OF CAMAS STANDARD DETAIL SITS FOR ROAD SECTION AT FUTURE BUILD-OUT (PHASE 2).
 - (R02) SURVEYED WETLAND BOUNDARY.
 - (R03) APPROX. EXTENT OF FOREST CANOPY.
 - (R04) NEW 10' WIDE ASPHALT MIXED-USE TRAIL. SEE SHEET R-106.

mahlum

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CAMAS SCHOOL DISTRICT

LACAMAS LAKE
ELEMENTARY SCHOOL

APN: 175724000



MARK	DATE	DESCRIPTION
ISSUE DATE:	FEBRUARY 11, 2019	
ISSUE:	RECORD SET	

PROJECT:	2018003
DRAWN BY:	JAB
CHECKED BY:	JMC
APPROVED BY:	

OVERALL
ROAD PLAN

"AS-BUILT" DRAWING NOTE (FEBRUARY 2019)
"AS-BUILT" INFORMATION SHOWN ON THESE CIVIL DRAWINGS IS
BASED ON INFORMATION PROVIDED BY THE GENERAL CONTRACTOR
(MUTTER CORPORATION).

R-100



City of Camas TIF PROJECT LOCATIONS





NO SCALE

LEGEND

North District TIF Projects

-  - Roadway Projects
-  - Intersection Projects

South District TIF Projects

-  - Roadway Projects
-  - Intersection Projects

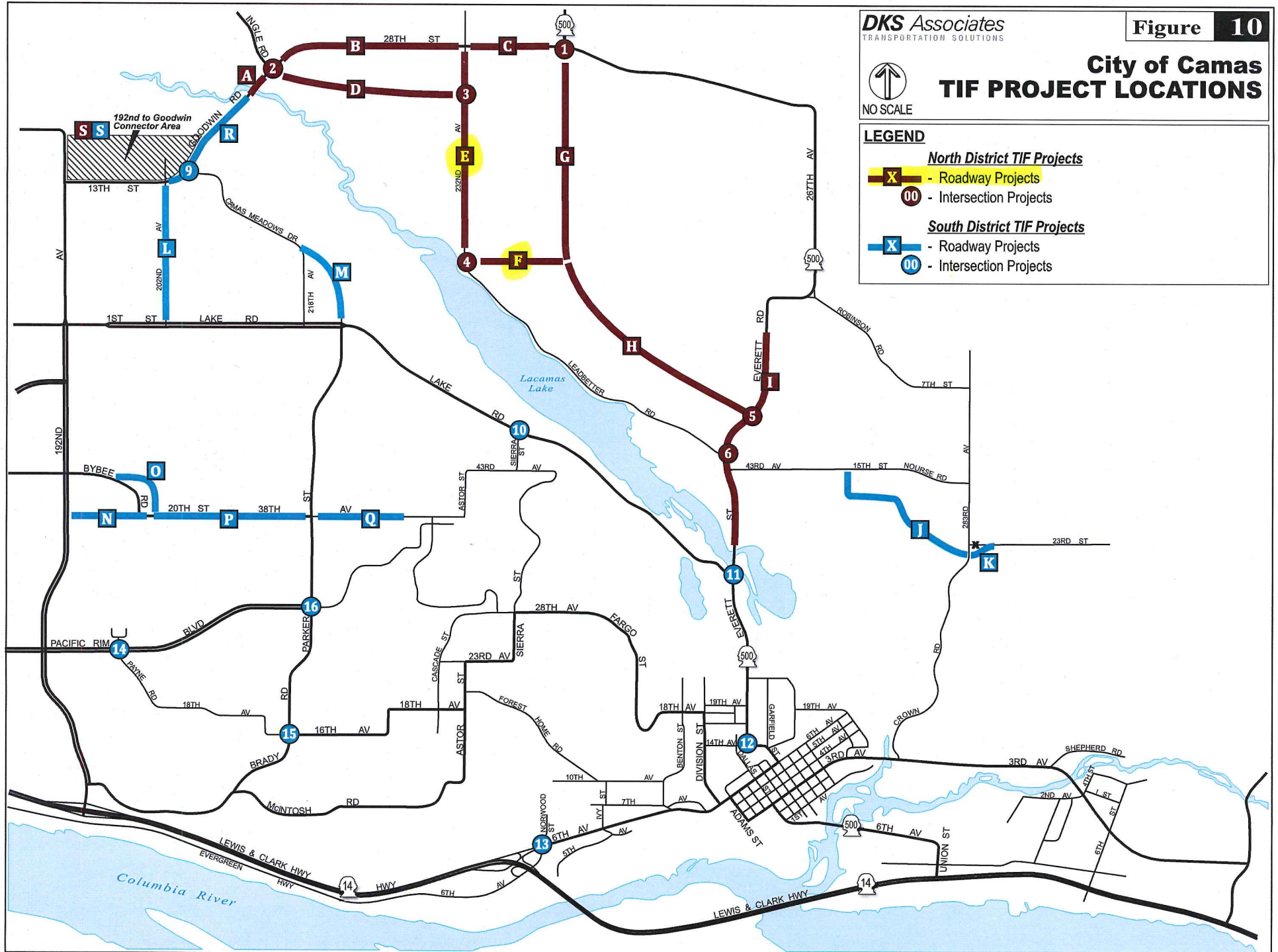


Table 9: Camas UGA TIF Improvements

Element	Improvement Project	Improvement	Total Construction Project Cost (millions)	TIF Eligible Cost (millions)
A	Goodwin Road (Lacamas Creek to Ingle Road)	Widen from 2 to 5 lanes between Friberg Street and Ingle Road	\$4.9	\$4.5
B	Goodwin Road (Ingle Road to 232 nd Avenue)	Widen from 2 lanes to 3 lanes between Ingle Road and 232 nd Avenue	\$6.4	\$4.5
C	Goodwin Road (232 nd Avenue to 242 nd Avenue)	Widen from 2 lanes to 3 lanes between 232 nd Avenue and 242 nd Avenue	\$3.2	\$0.8
D	New East-West Collector (extend Ingle Road to 232 nd Avenue)	Extend Ingle Road south of Goodwin/28 th as a 3 lane road to 232 nd Avenue	\$7.4	\$5.1
E	Improve 232 nd Avenue	Improve 232 nd Avenue to 3 lane Collector from NE 28 th Street to 9 th Street. Includes 2 new roundabouts at intersection with new East-West Collector and at 9 th Street	\$7.8	\$4.7
F	Improve/Extend 9 th Street	Improve 9 th Street to 3 lane collector from 232 nd Avenue to existing terminus and extend to new 242 nd Avenue Extension	\$3.7	\$2.9
G	Extend 242 nd Avenue south to 9 th Street	Extend and widen to 3 lanes between 28 th to 9 th Street	\$9.5	\$4.5
H	New East-West Arterial	New 3 lane roadway between 9 th Street and SR 500/Everett Street	\$11.5	\$9.0
I	Widen NE Everett Street	Widen from 2 lanes to 3 lanes between 35 th Avenue and the new East-West Arterial	\$4.7	\$3.6
S	192 nd -Goodwin Connector	Camas share (39%) of potential connection between 192 nd and Goodwin. Specific project and alignment to be determined. (North proportionate cost only)	\$2.8	\$0.9
North Roadway Projects			\$61.9	\$40.5

CHAPTER 3: TIF STRUCTURE

The current traffic impact fee calculation methodology has been utilized since 2003. The basis of the calculation is the assessment of PM peak hour vehicle trips from the Institute of Transportation Engineer's *Trip Generation: An ITE Informational Report* and a cost rate applied to each trip-end on a citywide basis. Chapter 5 of the previous TIF study provides background into the basis of the TIF. The following sections summarize the key components of the staff's recommended proposed TIF update:

- TIF will be collected based on PM peak hour trip generation rates
- Two TIF districts will be formed (see Figure 11) with project costs allocated either to the North district or the South district, with the exception of the 192nd/Goodwin connector project, which would be allocated between the districts proportionate to their use of the connector, based on growth.
- TIF will fund curb-to-curb plus storm sewer costs
- TIF will fund right-of-way outside the UGA proportionate to the expected Camas share of each project
- TIF will fund 20% of right-of-way inside the UGA
- TIF costs will be indexed at 3.9% per year, with new rates taking effect the first of each year

Table 10 summarizes staff's recommendation and the anticipated TIF fee associated with this recommendation, along with adjustments that would be made based upon a 60% reduction factor (as described previously).

Table 10: Staff Recommended TIF Fee

TIF Fee Summary	North	South
Curb-to-Curb+Storm+ROW*	\$10,619	\$4,042
60% reduction Factor	-\$4,248	-\$1,617
2011 Net Rate	\$6,371	\$2,425
2012 Net Rate	\$6,620	\$2,520
2013 Net Rate	\$6,878	\$2,618
2014 Net Rate	\$7,146	\$2,720
2015 Net Rate	\$7,425	\$2,826
2016 Net Rate	\$7,715	\$2,936
2017 Net Rate	\$8,015	\$3,051
2018 Net Rate	\$8,328	\$3,170
2019 Net Rate	\$8,653	\$3,294

* Includes ROW outside the UGA + 20% of ROW inside UGA

INTRODUCTION

This traffic study was performed to determine the impacts associated with the development of the new Lacamas Heights Elementary School in the Camas School District in the City of Camas. The impact area as defined based on input received from the City staff included the school's frontage area on NE 232nd Avenue and several key intersections occurring along NE 232nd Avenue, NE 28th Street, and 267th Avenue. The school property is situated north of 9th Street on the east side of 232nd Avenue. The site location is highlighted on the vicinity map (Figure 'a') in the appendix. Site layout including placement on the school building, future portable classroom units, parking lot, sports fields, and driveway location are shown on Figure 'b'.

The project proposes to construct a new elementary school to replace the existing Lacamas Heights Elementary School now located adjacent to the high school campus along SE 15th Street. The new elementary school will serve a total of 696 students (includes 600 students in the main building and 96 students in the portables). The school will operate on a standard 180 day school year during the hours of 9:00 AM to 3:30 PM. Traffic access is being planned as shown on the site plan and will include a half-street alignment on the south side of the campus.

In the project scope established with the City of Camas a number of important elements were identified and considered in the study.

- Projecting site generated traffic for 696 students. This total includes the number of students that will use portable classroom units. Trip rates were applied from the ITE Trip Generation Manual (9th Edition, year 2012).
- Distribution of site generated trips was based on the District's service area and boundary information, traffic volume counts, circulation patterns, and engineering judgment.
- Background traffic was established from several in-process traffic projects identified by the City. Application of annual traffic growth was not necessary in the analysis as confirmed by staff.
- Documentation of pedestrian, bicycle, and transit facilities in the study area.
- Evaluation of sight distance at the new intersection of the site's connector road and 232nd Avenue.
- Determination of left turn lane requirements and peak hour signal warrants.
- Capacity analysis of five study intersections including 232nd Avenue at 9th Street, 232nd at the new school connector road, 232nd at 28th Street, 242nd Avenue at 28th Street, and 267th Avenue at 19th Street. The peak hour periods during the weekday AM, mid-afternoon, and PM were analyzed for the existing, background year 2018, and total traffic year 2018 scenarios.
- Review of the existing travel lane and traffic control conditions.
- Level of service analysis of the study intersections to confirm the locations not meeting the City's mobility standards and the required mitigation.
- Documentation of the study area streets and intersections included in the City's TIF Update (May 2012).
- Review of WSDOT furnished crash history data to assess if there have been safety issues that must be mitigated.

The Appendix to the report contains technical data including a vicinity map, site plan, traffic flow mapping, left turn lane & signal warrants, lane and traffic control plan, and the capacity analysis outputs.

SITE DESCRIPTION, STREETS, AND CRITICAL INTERSECTIONS

The project site is located in north Camas approximately a quarter-mile north of Lacamas Lake on the east side of 232nd Avenue. The surrounding land is sparsely developed and consists mainly of

Figure 4 illustrates the trip distribution and Figure 5 shows the trip assignments for the school generated traffic in the study area covering the AM, mid-afternoon, and PM peak hours. Generated traffic was developed from the number of trips associated with 696 students.

The total traffic scenario was derived from the summation of the background and the school's site generated traffic. The total traffic scenario is depicted on Figure 6.

VEHICLE TRIP GENERATION

Vehicle trip generation rates were calculated based on historical data contained in the ITE Trip Generation manual (9th Edition, 2012). Trip rates for the elementary school were applied from the manual using ITE code #520 based on 696 students.

Over a 24-hour weekday period a total of 898 trip ends are projected to occur when the school begins operation. During the AM, mid-afternoon, and PM peak hours a total of 313, 195, and 104 trips, respectively will be generated in the peak hours.

Table 1 Trip Generation Summary

ITE Land Use	Units (Students)	Weekday									
		ADT	AM Peak Hour			Mid-Afternoon Peak Hour			PM Peak Hour		
			Total	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit
Elementary School (#520)	696										
Generation Rate ¹		1.29	0.45	55%	45%	0.28	45%	55%	0.15	49%	51%
Site Trips		898	313	172	141	195	88	107	104	51	53

¹ Source: *Trip Generation*, 9th Edition, ITE, 2012, average rates.

TRAFFIC FLOW AND CAPACITY ANALYSIS RESULTS

The traffic flow maps included in the appendix showing the traffic volume data and turning movements for the weekday peak hour conditions were used in the capacity analysis. The study intersections were evaluated for the existing, year 2018 background, and year 2018 total traffic scenarios during the AM, mid-afternoon, and PM peak hours. Synchro version #9.1 software employing the year 2010 Highway Capacity Manual methodology was applied in performing the intersection capacity analyses.

The City's mobility standards require that a LOS 'D' and a volume to capacity (v/c) ratio of 0.90 or better be maintained for all intersections. The standards are documented in the City of Camas Comprehensive Plan, Transportation Element, Policy TR-20 dated March 2004.

Table 2 presents a summary of the capacity analysis results determined in the study.