City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning | Engineering | Public Works | Fire | Traffic

City of Puyallup Traffic Scoping Worksheet

PROJECT INFORMATION

Project Title: East Town Crossing Date: 2/25/2022

Applicant Name: Gil Hulsmann Telephone Number: 253 435 3699

Project Description: Mixed-Use Development Year of Occupancy: 2024

Project Location: PN's: 042026-4053; -4054; -1066; -4021; -1030; -1029; -1026 Parcel Size: 10.93-acres

Proposed Number of Access Point(s): 2 Existing Number of Access Point(s): 4

Land Use	Quantity	ITE Land Use Code	Average Daily Trips	AM Peak Hour Trips*	PM Peak Hour Trips*
Existing Use(s)					
Single-Family	3	220	28.3	2.1	2.8
Proposed Use(s): See attached sheets for detailed trip generation calculations					
Mixed-Use Development	See attached use breakdown	See attached use breakdown	1574.9	93.2	122.8
Net New Trips			1546.6	91.1	120.0
Traffic Impact Fees: Net New PM Peak Hour Trips x $4,500 = **$540,000**					

* The project trips shall be rounded to the nearest tenth.
* The project trips shall be estimated using the ITE's *Trip Generation*, 11th Edition.
* Trip generation regression equations shall be used when the R^2 value is 0.70 or greater.
* For land uses that do not exist within the ITE's *Trip Generation*, actual field data shall be collected from three local facilities that have similar characteristics to the proposal.
* For single-family units and offices and specialty retail smaller than 30,000 SF, use ITE's *Trip Generation*, 10th Edition, average rate.

Identify all intersections that will be affected by 25 new project peak hour trips or more:
1. See attached trip distribution Figure 2. Intersections receiving 25 or more new project PM peak hour trips are demarcated with a red circle.

Additional Comments:

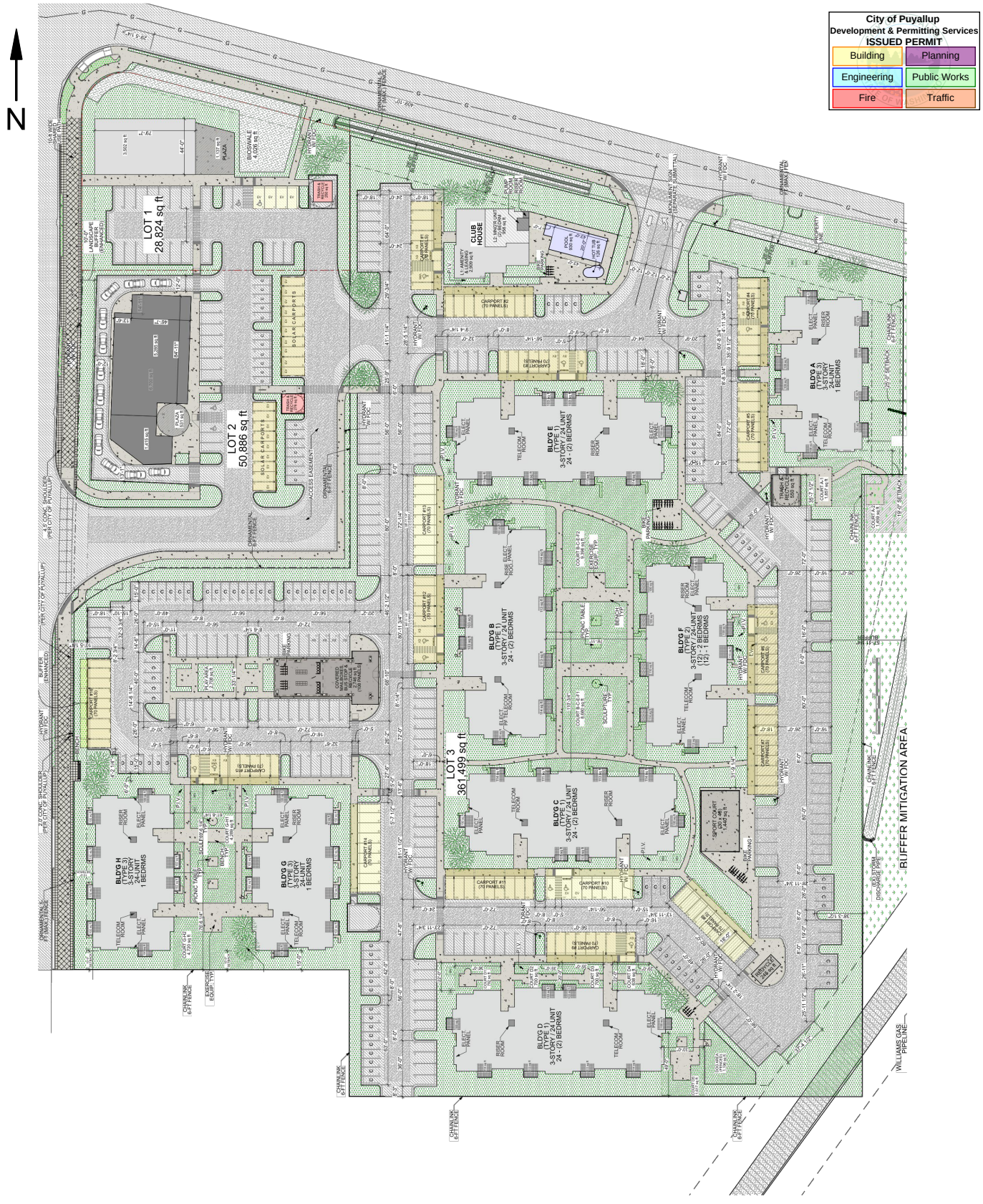
1. A trip generation summary for the proposed mixed-use development has been attached in the appendix. Internal capture and pass-by trip reductions were taken into consideration. Net new PM Peak Hour trips provided in the table above are reflective of these trip reductions. Trip distribution assumptions were based on Pioneer Crossing assignments.

Prepared by: Traffic Engineer: Aaron Van Aken Telephone Number: 253-770-1401
Address: PO Box 397 Puyallup, WA 98371 heathtraffic.com

Office Use Only

TIS ☐ TAS ☐ TAIS ☐ No Further Work Required ☐

☒ Completed Worksheet ☒ Attach Site Plan ☒ Attach Trip Assignment ☒ Attach Trip Distribution
☒ Mail or hand deliver to 333 South Meridian, Puyallup, WA 98371 or e-mail to standle@ci.puyallup.wa.us

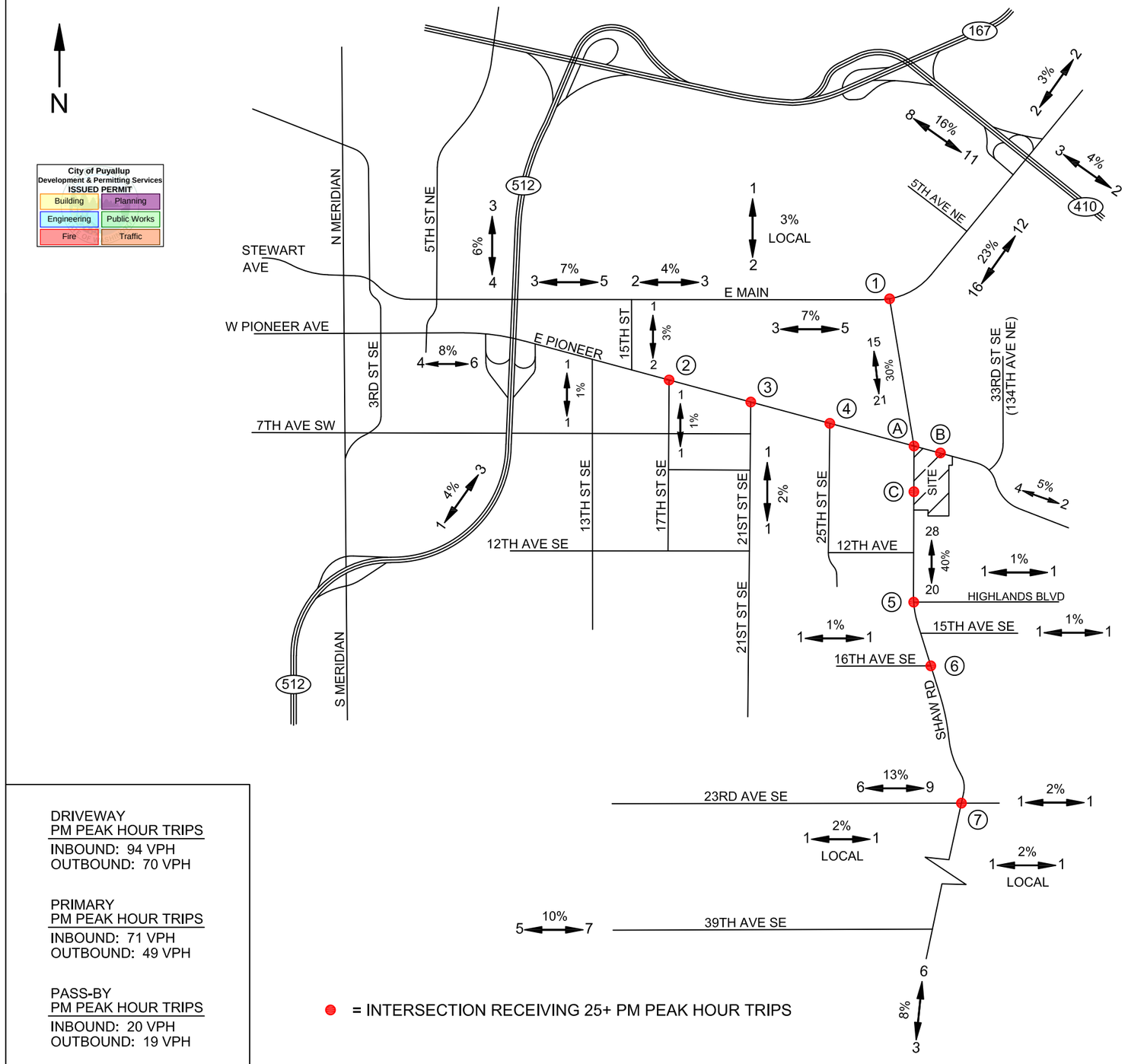


HEATH & ASSOCIATES

TRAFFIC AND CIVIL ENGINEERING

EAST TOWN CROSSING

SITE PLAN
FIGURE 1



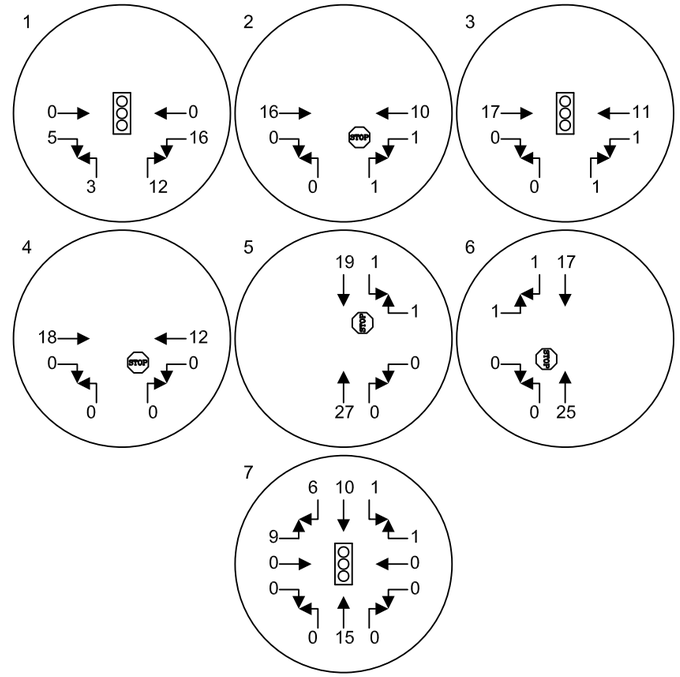
DRIVEWAY
PM PEAK HOUR TRIPS
INBOUND: 94 VPH
OUTBOUND: 70 VPH

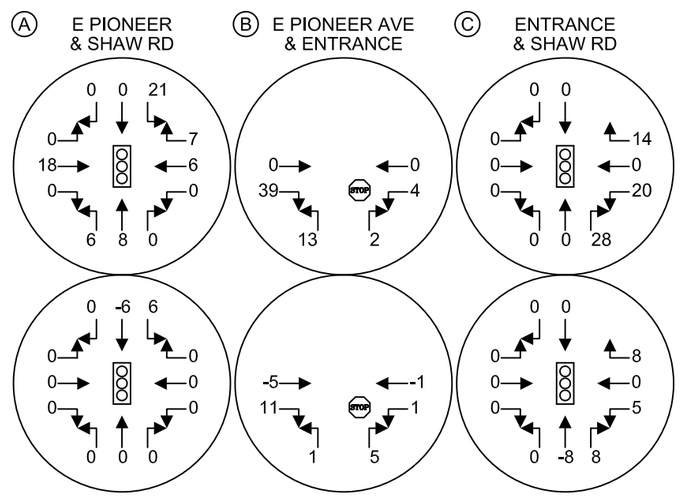
PRIMARY
PM PEAK HOUR TRIPS
INBOUND: 71 VPH
OUTBOUND: 49 VPH

PASS-BY
PM PEAK HOUR TRIPS
INBOUND: 20 VPH
OUTBOUND: 19 VPH

● = INTERSECTION RECEIVING 25+ PM PEAK HOUR TRIPS

PRIMARY TRIPS





HEATH & ASSOCIATES

TRAFFIC AND CIVIL ENGINEERING

EAST TOWN CROSSING

PM PEAK HOUR TRIP DISTRIBUTION & ASSIGNMENT
FIGURE 2

PO Box 397 Puyallup, WA 98371 (253) 770 1401 heathtraffic.com

Heath & Associates Transportation Engineering
Project: Eastside Crossing
Jurisdiction: City of Puyallup

East Side Crossing - Trip Generation Summary

Average Weekday Trips

Development	Land Use	LUC	Variable	Value	Rate	Distribution		Total Trips			Internal Capture		Pass-by Trips		Primary Trips		
						In	Out	In	Out	Total	%	Total	%	Total	In	Out	Total
Previous	Single-Family	#210	Dwelling Units	3	9.43	50%	50%	14.1	14.1	28.3	0%	0	0%	0.0	14.1	14.1	28.3
Proposed	Multi-Family (Low-Rise)	#220	Dwelling Units	193	6.74	50%	50%	650.4	650.4	1300.8	8%	104.1	0%	0.0	598.4	598.4	1196.8
	Strip Retail Plaza	#822	1000 Sq. Ft.	10.2	54.45	50%	50%	277.7	277.7	555.4	8%	44.4	26%	132.8	189.1	189.1	378.1
												Net New Primary Trips			**773.3**	**773.3**	**1546.6**

Weekday AM Peak Hour

Development	Land Use	LUC	Variable	Value	Rate	Distribution		Total Trips			Internal Capture		Pass-by Trips		Primary Trips		
						In	Out	In	Out	Total	%	Total	%	Total	In	Out	Total
Previous	Single-Family	#210	Dwelling Units	3	0.7	26%	74%	0.5	1.6	2.1	0%	0	0%	0.0	0.5	1.6	2.1
Proposed	Multi-Family (Low-Rise)	#220	Dwelling Units	193	0.4	24%	76%	18.5	58.7	77.2	2%	1.5	0%	0.0	18.2	57.5	75.7
	Strip Retail Plaza	#822	1000 Sq. Ft.	10.2	2.36	60%	40%	14.4	9.6	24.1	2%	0.5	26%	6.1	10.5	7.0	17.5
												Net New Primary Trips			**28.1**	**62.9**	**91.0**

Weekday PM Peak Hour

Development	Land Use	LUC	Variable	Value	Rate	Distribution		Total Trips			Internal Capture		Pass-by Trips		Primary Trips		
						In	Out	In	Out	Total	%	Total	%	Total	In	Out	Total
Previous	Single-Family	#210	Dwelling Units	3	0.94	63%	37%	1.8	1.0	2.8	0%	0	0%	0.0	1.8	1.0	2.8
Proposed	Multi-Family (Low-Rise)	#220	Dwelling Units	193	0.51	63%	37%	62.0	36.4	98.4	14%	13.8	0%	0.0	53.3	31.3	84.6
	Strip Retail Plaza	#822	1000 Sq. Ft.	10.2	6.59	50%	50%	33.6	33.6	67.2	14%	9.4	34%	19.7	19.1	19.1	38.2
												Net New Primary Trips			**70.6**	**49.4**	**120.0**

Sources:
Institute of Transportation Engineers, *Trip Generation Manual,* 11th Edition, (2021).
Institute of Transportation Engineers, *Trip Generation Handbook,* 3rd Edition, (2017).
Internal Capture Rates based on NCHRP 8-51 Internal Capture (ADT rates are the average of the AM/PM)

NCHRP 8-51 Internal Trip Capture Estimation Tool			
Project Name:	East Side Crossing	**Organization:**	Heath & Associates
Project Location:	City of Puyallup	**Performed By:**	PW
Scenario Description:	Full Buildout	**Date:**	2/22/2022
Analysis Year:	2022	**Checked By:**	
Analysis Period:	**AM Street Peak Hour**	**Date:**	

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office				0		
Retail	822	10,200	SF	24	14.4	9.6
Restaurant						
Cinema/Entertainment				0		
Residential	220	193	Dwelling Units	69.8	18.5	58.7
Hotel				0		
All Other Land Uses[2]				0		
Total				93.8	32.9	68.3

Table 2-A: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.	% Transit	% Non-Motorized	Veh. Occ.	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses[2]						

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		0	0	0	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	1	0	0		0
Hotel	0	0	0	0	0	

Table 5-A: Computations Summary

	Total	Entering	Exiting
All Person-Trips	102	33	69
Internal Capture Percentage	2%	3%	1%
External Vehicle-Trips[3]	100	32	68
External Transit-Trips[4]	0	0	0
External Non-Motorized Trips[4]	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	7%	0%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	0%	2%
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Informational Report*, published by the Institute of Transportation Engineers.
[2]Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator
[3]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A
[4]Person-Trips
*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas Transportation Institute

Project Name:	East Side Crossing
Analysis Period:	**AM Street Peak Hour**

Table 7-A: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-A (D): Entering Trips			Table 7-A (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	0	0	1.00	0	0
Retail	1.00	14.4	14	1.00	9.6	10
Restaurant	1.00	0	0	1.00	0	0
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	18.5	19	1.00	58.7	59
Hotel	1.00	0	0	1.00	0	0

Table 8-A (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	3		1	0	1	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	1	1	12	0		0
Hotel	0	0	0	0	0	

Table 8-A (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		4	0	0	0	0
Retail	0		0	0	0	0
Restaurant	0	1		0	1	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	2	0	0		0
Hotel	0	1	0	0	0	

Table 9-A (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	1	13	14	13	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	0	19	19	19	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

Table 9-A (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	0	10	10	10	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	1	58	59	58	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A

[2]Person-Trips

[3]Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning | Engineering | Public Works | Fire | Traffic

NCHRP 8-51 Internal Trip Capture Estimation Tool			
Project Name:	East Side Crossing	**Organization:**	Heath & Associates
Project Location:	City of Puyallup	**Performed By:**	AV
Scenario Description:	Full Buildout	**Date:**	2/22/2022
Analysis Year:	2022	**Checked By:**	
Analysis Period:	**PM Street Peak Hour**	**Date:**	

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office				0		
Retail	822	10,200	SF	67.2	33.6	33.6
Restaurant				0	0	0
Cinema/Entertainment				0		
Residential	220	193	Dwelling Units	98.4	62	36.4
Hotel				0		
All Other Land Uses[2]				0		
Total				165.6	95.6	70

Table 2-P: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.	% Transit	% Non-Motorized	Veh. Occ.	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses[2]						

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		0	0	9	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	3	0	0		0
Hotel	0	0	0	0	0	

Table 5-P: Computations Summary

	Total	Entering	Exiting
All Person-Trips	166	96	70
Internal Capture Percentage	14%	13%	17%
External Vehicle-Trips[3]	142	84	58
External Transit-Trips[4]	0	0	0
External Non-Motorized Trips[4]	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	9%	26%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	15%	8%
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Informational Report*, published by the Institute of Transportation Engineers.
[2]Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator
[3]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P
[4]Person-Trips
*Indicates computation that has been rounded to the nearest whole number.
Estimation Tool Developed by the Texas Transportation Institute

Project Name:	East Side Crossing
Analysis Period:	**PM Street Peak Hour**

Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-P (D): Entering Trips			Table 7-P (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	0	0	1.00	0	0
Retail	1.00	33.6	34	1.00	33.6	34
Restaurant	1.00	0	0	1.00	0	0
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	62	62	1.00	36.4	36
Hotel	1.00	0	0	1.00	0	0

Table 8-P (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	1		10	1	9	2
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	1	15	8	0		1
Hotel	0	0	0	0	0	

Table 8-P (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		3	0	0	2	0
Retail	0		0	0	29	0
Restaurant	0	17		0	10	0
Cinema/Entertainment	0	1	0		2	0
Residential	0	3	0	0		0
Hotel	0	1	0	0	0	

Table 9-P (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	3	31	34	31	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	9	53	62	53	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

Table 9-P (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	9	25	34	25	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	3	33	36	33	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

[2]Person-Trips

[3]Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

TYPICAL AT EACH APARTMENT BUILDING
A stand of trees with a canopy of 1,000 square feet (as measured in frontal view rather than top view) located no farther than 20 feet from a facade of the building, consisting of either existing trees, or planted trees.
(Per PMC 20.26.200 (4) (b) (v))

LOT 1
28,824 sq ft

LOT 2
50,886 sq ft

LOT 3
361,499 sq ft

BUFFER MITIGATION AREA
44,970 sq ft

BUFFER MITIGATION AREA
12,120 sq ft

1 SITE PLAN
SCALE: 1" = 40'

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning | Engineering | Public Works | Fire | Traffic

S9
SYNTHESIS 9, LLC
523 N. D ST.
TACOMA, WA 98403

EAST TOWN CROSSING
MULTIFAMILY DEVELOPMENT
PIONEER & SHAW PUYALLUP

SITE PLAN UPDATE | 21.12.14

REVISIONS

DRAWN BY:	BL / CM
CHECKED BY:	BL
DATE:	21.12.14
TITLE:	SITE PLAN
PROJECT # :	2016
SHEET:	AS1.0