

MEMORANDUM

DATE: August 30, 2022

TO: Bryan Roberts / Hans Hunger
City of Puyallup

FROM: Amy Wasserman / Chris Bicket
TENW

SUBJECT: Updated Preliminary Traffic Information for Puyallup School District Capital Project at Downtown Operations and South Hill Support Campuses
City of Puyallup Project #P-21-0132/0133
TENW Project #2022-079/080

The purpose of this memorandum is to provide preliminary traffic information for the Puyallup School District's proposed capital project at their Downtown Operations and South Hill Support Campuses. This memo includes a description of the proposed project, trip generation estimate, and impact fee estimate. We are requesting your review of this information and a meeting to discuss next steps.

Project Description

The Puyallup School District's (PSD) proposed Downtown Operations Campus and South Hill Support Campus capital project is described below:

Downtown Operations Campus (DOC):

The Puyallup School District's existing Downtown Operations Campus (DOC) is located at 323 12th Street NW. Based on detailed staff information provided by PSD, the DOC currently employs a total of 145 staff which includes bus drivers, transportation and operations admin, capital projects, maintenance/grounds, custodial admin, and mechanics.

The PSD small "special education" (SPED) bus fleet is currently stored at the DOC site. The proposed capital project would include relocation of the SPED bus fleet (including spare buses) from the district's Downtown Operations Campus to their South Hill Support Campus.

District owned autos and trucks used by PSD staff (the "white fleet") are currently stored at the DOC site and will remain at the DOC site with the proposed capital project. Additionally, fueling of the District's gasoline vehicles and buses (including the SPED bus fleet that is relocating to the South Hill Support Campus site) that currently occurs at the DOC site will continue to occur at the DOC site with the proposed capital project. Also, all repairs and maintenance to PSD vehicles (including buses, trucks, and autos) are currently conducted at the DOC site and will continue to be conducted at the DOC site with the proposed capital project. It should be noted that any new vehicular trips associated with the SPED buses travelling to/from the South Hill Support Campus where they will be stored and the Downtown Operations Campus site for fueling or repairs/maintenance are not expected to occur during the AM or PM peak periods (7-9 AM and 4-6 PM) since fueling or transporting for repair/maintenance occurs outside of these periods.

Based on detailed staff information provided by PSD, as a result of the proposed capital project to relocate the SPED buses from the DOC to the South Hill Support Campus site, the total staff at the DOC is anticipated to be reduced by 69 (64 bus drivers and 5 transportation admin), resulting in a total of 76 staff in the future with the project. The detailed staff information provided by PSD is included in **Attachment A**.

South Hill Support Campus:

The Puyallup School District's existing South Hill Support Campus is located at 3607 17th Street SW. Based on detailed staff information provided by PSD, the South Hill Support Campus currently employs a total of 184 staff which includes transportation admin, mechanics, kitchen/food service, warehouse/logistical support, print shop, EdTec, and CTE. The district's large bus fleet is also stored at the South Hill Support Campus.

The proposed Puyallup School District capital project includes the addition of new surface parking at the South Hill Support Campus to accommodate the SPED bus fleet that will be relocated from the DOC campus to the South Hill Support Campus, and also the associated bus drivers/staff.

As noted above, fueling of the SPED bus fleet (gasoline buses) will continue to occur at the DOC site with the proposed capital project. It should be noted that any new vehicular trips associated with SPED buses travelling to/from the South Hill Support Campus where they will be stored and the Downtown Operations Campus site for fueling are not expected to occur during the AM or PM peak periods (7-9 AM and 4-6 PM) since fueling occurs outside of these periods.

Based on detailed staff information provided by PSD, as a result of the proposed capital project to relocate the SPED bus fleet to the South Hill Support Campus, the total staff at the South Hill Support Campus is anticipated to increase by 69 (64 bus drivers and 5 transportation admin), resulting in a total of 253 staff in the future with the project. The relocation of the SPED bus fleet from the DOC to South Hill Support Campus is not anticipated to result in any new staff. The detailed staff information provided by PSD is included in **Attachment A**.

This capital project is anticipated to be in place by the start of the 2023 school year. A project vicinity map illustrating the Downtown Operations Campus and South Hill Support Campus locations is included below. A preliminary site plan for the South Hill Support Campus is included in **Attachment B**.



Project Trip Generation

The Puyallup School District's existing Downtown Operations and South Hill Support Campuses are located approximately 2.5 miles apart. The proposed PSD capital project would result in a shift in trips from their DOC to South Hill Support Campus as a result of relocating the small SPED bus fleet. Therefore, it is anticipated that there will be a reduction in vehicular trips within the immediate (local) vicinity of the DOC and an increase in vehicular trips within the immediate (local) vicinity of the South Hill Support Campus.

The weekday vehicular trip generation estimates for the proposed project were calculated separately for the Downtown and South Hill Support Campuses and were based on methodology documented in the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 11th Edition, for land use code (LUC) 528 (School District Office) and the detailed staff information provided by the district (see **Attachment A**).

The resulting net new weekday daily, AM peak hour, and PM peak hour trip generation estimates associated with the PSD capital project are summarized below in **Table 1**. The detailed trip generation calculations are included in **Attachment B**.

Table 1
PSD Downtown Operations and South Hill Support Campus Capital Project
Net New Trip Generation Summary

Weekday Time Period	Net New Trips Generated								
	Downtown Operations Campus (DOC)			South Hill Support Campus			TOTAL (DOC + South Hill Support Campus)		
	In	Out	Total	In	Out	Total	In	Out	Total
Daily	-116	-116	-232	94	95	189	-22	-21	-43
AM Peak Hour	-34	-11	-45	30	9	39	-4	-2	-6
PM Peak Hour	-7	-35	-42	6	32	38	-1	-3	-4

As shown in **Table 1**, as a result of the proposed PSD capital project to relocate their small SPED bus fleet from their Downtown Operations Campus to their South Hill Support Campus, there would be an anticipated reduction in vehicular trips to the overall transportation system on an average weekday and also during the weekday AM and PM peak hours.

Transportation Impact Fees

To mitigate long-term transportation impacts, the City of Puyallup administers a Transportation Impact Fee (TIF) to new developments to improve the transportation system to accommodate the higher travel demand added by new development. The City of Puyallup's currently adopted transportation impact fee is \$4,500 per net new PM peak hour trip.

As shown in **Table 1**, the Puyallup School District's proposed capital project to relocate their small SPED bus fleet from their Downtown Operations to South Hill Support Campus would result in an anticipated reduction in vehicular trips to the overall transportation system during the weekday PM peak hour which would be estimated to result in a net transportation impact fee of \$0.

However, the City of Puyallup has indicated that they do not allow trip credit to be transferred between parcels, even if the parcels are related to a singular project and are owned by the same entity. Therefore, as a result of the proposed PSD capital project to relocate their small SPED bus fleet to their South Hill Support Campus, the estimated transportation impact fee is \$172,350 (38.3 new PM peak hour trips per **Attachment B** X \$4,500 per PM peak hour trip).

Next Steps

Once the City has had a chance to review the information presented in this memorandum, we would like to request a meeting to discuss next steps.

Attachments: A. Detailed Staff Forecasts from Puyallup School District
 B. Preliminary Site Plan for South Hill Support Campus
 C. Trip Generation Calculations

ATTACHMENT A

Detailed Staff Forecasts from Puyallup School District

Staff Numbers for Support Campus -South Hill site

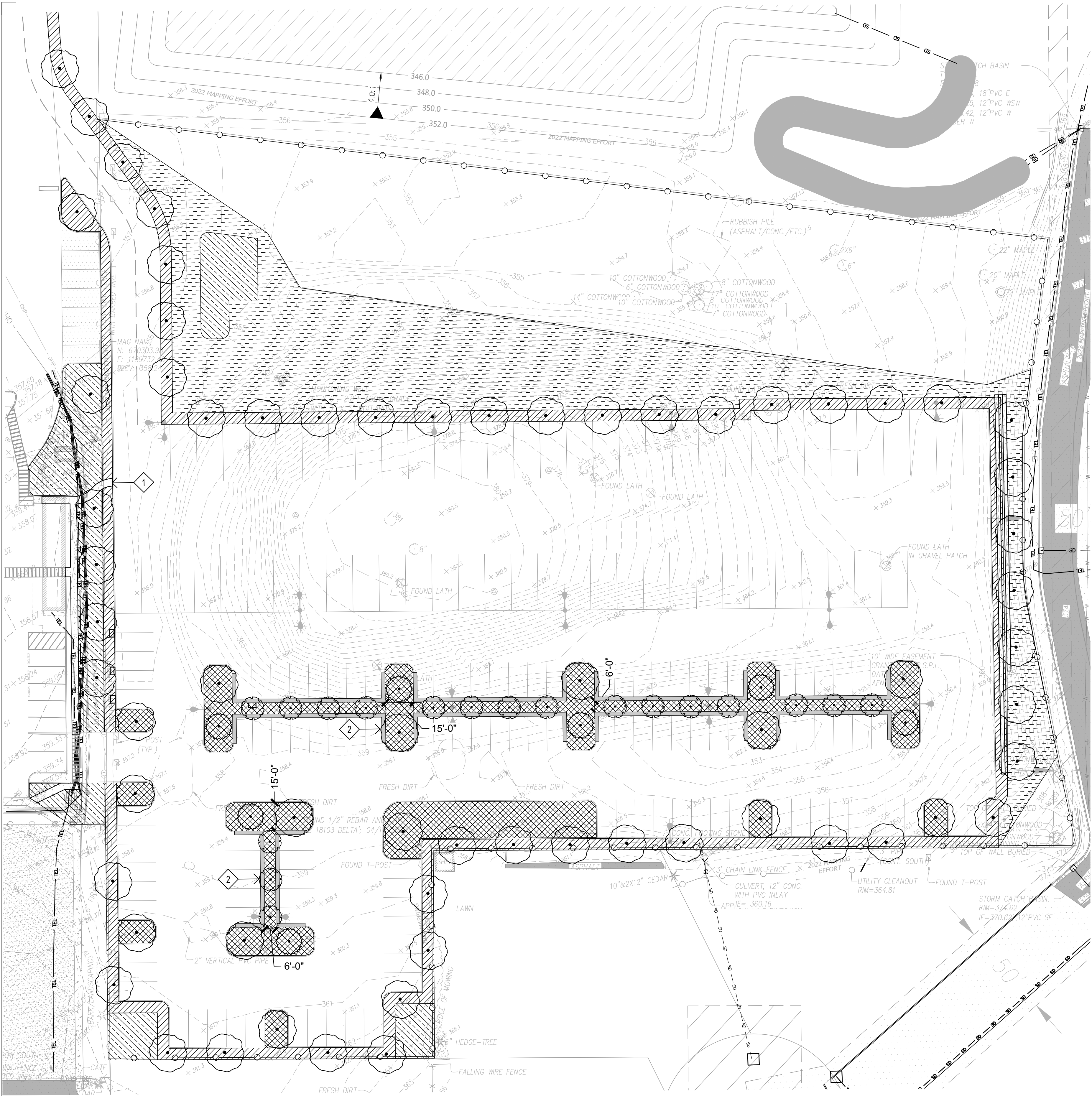
	Current				Future			
	Current AM	Current PM	Seasonal	Total	Future AM	Future PM	Seasonal	Total
Bus Drivers	65			65	129			129
Transportation Admin	5			5	10			10
Mechanics	2			2	2			2
Kitchen Employees	20			20	20			20
Food Service Admin	4			4	4			4
Warehouse/Logistical Support	12			12	12			12
Print Shop	3			3	3			3
EdTec - Full Time	40			40	40			40
EdTec - Temp/Part Time	28			28	28			28
Custodial	1			1	1			1
CTE	4			4	4			4
TOTAL	184	0	0	184	253	0	0	253

Staff Number for Operations/Maintenance - Downtown site

	Current				Future			
	Current AM	Current PM	Seasonal	Total	Future AM	Future PM	Seasonal	Total
Bus Drivers	64			64	0			0
Transportation Admin	5			5	0			0
Operations Admin	9			9	9			9
Capital Projects	11			11	11			11
Maintenance	18	10		28	18	10		28
Grounds	7		6	13	7		6	13
Custodial Admin	5	1		6	5	1		6
Mechanics	6	3		9	6	3		9
Visitors				0				0
TOTAL	125	14	6	145	56	14	6	76

ATTACHMENT B

Preliminary Site Plan for South Hill Support Campus



SITE PLAN LEGEND

SYMBOL	KEY	DESCRIPTION	QTY
		PLANTING AREA - TYPE II	11,535 SF 58 TREES
		PLANTING AREA - TYPE IV	10,605 SF 32 TREES
		PLANTING AREA - OTHER	6,850 SF
		PLANTING AREA - EROSION CONTROL GRASS SEED MIX	22,100 SF
	1 →	CONCRETE PAVING - PEDESTRIAN	625 SF
	2 →	STRUCTURAL SOIL CELLS	1,958 SF

BASIS OF DESIGN NOTES

- LANDSCAPE SCOPE OF WORK:** INCLUDES TREE, SHRUB, AND GROUNDCOVER PLANTING, SEEDING, PEDESTRIAN PAVING, SOIL, IRRIGATION, AND STRUCTURAL SOIL CELLS.
- GENERAL PLANTING DESCRIPTION:** PROPOSED VEGETATION WILL BE A MIX OF NATIVE AND WELL-ADAPTED SPECIES WHICH ARE LOW MAINTENANCE AND REQUIRE MINIMAL WATER ONCE ESTABLISHED. PLANT SELECTION WILL PRIORITIZE THOSE SPECIES WHICH PROVIDE COVER, FOOD, AND NESTING HABITAT FOR BIRDS WHILE MEETING THE REQUIREMENTS OF THE PUYALLUP MUNICIPAL CODE.
- PLAN ELEMENTS:**
VEGETATION:
TREES: 1.5" CAL. 5'-6' TALL FOR CONIFERS.
SHRUBS: 2 GAL. - 5 GAL.
GROUNDCOVER: 1 GAL.
SEED: MEADOW MIX
PEDESTRIAN PAVING:
TYPE 1: BROOM FINISH CIP CONCRETE
SOIL: ALL PLANTING AREAS ARE TO RECEIVE THE FOLLOWING IMPORT SOILS:
STRUCTURAL SOIL CELLS: 24" DEPTH
2-WAY TOPSOIL
BIORETENTION AREAS: 18" DEPTH
BIORETENTION SOIL
ALL OTHER PLANTED AREAS, 8" DEPTH
2-WAY TOPSOIL
STRUCTURAL SOIL CELLS:
ONE ROW OF SILVA CELLS OR EQUAL AND ASSOCIATED GEOTEXTILE, GEOGRID, AND AGGREGATE BASE.
- PMC CODE REQUIREMENTS:**
4.1. PER PMC 20.58, THE LANDSCAPE PLAN HAS BEEN DESIGNED ACCORDING TO THE VEGETATION MANAGEMENT STANDARDS ADMINISTRATIVE POLICIES AND PROCEDURES.



Project Title

SOUTH HILL SUPPORT
CAMPUS IMPROVEMENTS
- PHASE 1

1501 39th AVE SW
PUYALLUP, WA 98371

Project Numbers
2022-002

Issue & Revision Dates

21 JUNE, 2022 SCHEMATIC DESIGN

SCHEMATIC DESIGN
NOT FOR CONSTRUCTION

Sheet Title

Landscape
Site Plan

Drawn By
LLV

Checked By
MB

Sheet Number

Sheet Number

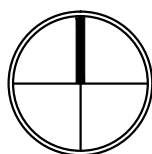
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SITE PLAN

SCALE: 1" = 30' - 0"



PROJECT NORTH

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ATTACHMENT C

Trip Generation Calculations

Puyallup School District Downtown Site Trip Generation Summary

Proposed Land Use	Units ¹	ITE LUC ²	Directional Distribution ²		Trip Rate or Equation ²	Trips Generated		
			In	Out		In	Out	Total
Daily								
<u>Proposed Use:</u>								
School District Office	76 employees	528	50%	50%	$\ln(T) = 0.71\ln(X)+2.91$	198	199	397
<u>Existing Use:</u>								
School District Office	145 employees	528	50%	50%	$\ln(T) = 0.71\ln(X)+2.91$	-314	-315	-629
Net New Daily Trip Generation =						-116	-116	-232
AM Peak Hour								
<u>Proposed Use:</u>								
School District Office	76 employees	528	76%	24%	$\ln(T) = 0.80\ln(X)+0.74$	51	16	67
<u>Existing Use:</u>								
School District Office	145 employees	528	76%	24%	$\ln(T) = 0.80\ln(X)+0.74$	-85	-27	-112
Net New AM Peak Hour Trip Generation =						-34	-11	-45
PM Peak Hour								
<u>Proposed Use:</u>								
School District Office	76 employees	528	17%	83%	$\ln(T) = 0.89\ln(X)+0.12$	9	44	53
<u>Existing Use:</u>								
School District Office	145 employees	528	17%	83%	$\ln(T) = 0.89\ln(X)+0.12$	-16	-79	-95
Net New PM Peak Hour Trip Generation =						-7	-35	-42

Notes:

¹ 69 employees will move from the Downtown to South Hill site based on detailed employee forecasts provided by the Puyallup School District.

² Land Use Code, trip rates/equations and directional splits based on ITE *Trip Generation* Manual, 11th Edition, 2021.

Puyallup School District South Hill Site Trip Generation Summary

Proposed Land Use	Units ¹	ITE LUC ²	Directional Distribution ²		Trip Rate or Equation ²	Trips Generated		
			In	Out		In	Out	Total
Daily								
<u>Proposed Use:</u>								
School District Office	253 employees	528	50%	50%	$\ln(T) = 0.71\ln(X)+2.91$	466	467	933
<u>Existing Use:</u>								
School District Office	184 employees	528	50%	50%	$\ln(T) = 0.71\ln(X)+2.91$	-372	-372	-744
Net New Daily Trip Generation =						94	95	189
AM Peak Hour								
<u>Proposed Use:</u>								
School District Office	253 employees	528	76%	24%	$\ln(T) = 0.80\ln(X)+0.74$	133	42	175
<u>Existing Use:</u>								
School District Office	184 employees	528	76%	24%	$\ln(T) = 0.80\ln(X)+0.74$	-103	-33	-136
Net New AM Peak Hour Trip Generation =						30	9	39
PM Peak Hour								
<u>Proposed Use:</u>								
School District Office	253 employees	528	17%	83%	$\ln(T) = 0.89\ln(X)+0.12$	26	129	155
<u>Existing Use:</u>								
School District Office	184 employees	528	17%	83%	$\ln(T) = 0.89\ln(X)+0.12$	-20	-97	-117
Net New PM Peak Hour Trip Generation =						6	32	38

Notes:

¹ 69 employees will move from the Downtown to South Hill site based on detailed employee forecasts provided by the Puyallup School District.

² Land Use Code, trip rates/equations and directional splits based on ITE *Trip Generation* Manual, 11th Edition, 2021.

NOT ROUNDED FOR TRANSPORTATION IMPACT FEE CALCULATIONS

Puyallup School District South Hill Site

Trip Generation Summary

Proposed Land Use	Units ¹	ITE LUC ²	Directional Distribution ²		Trip Rate or Equation ²	Trips Generated		
			In	Out		In	Out	Total
Daily								
<u>Proposed Use:</u>								
School District Office	253 employees	528	50%	50%	$\ln(T) = 0.71\ln(X)+2.91$	466	467	933
<u>Existing Use:</u>								
School District Office	184 employees	528	50%	50%	$\ln(T) = 0.71\ln(X)+2.91$	-372	-372	-744
Net New Daily Trip Generation =						94	95	189
AM Peak Hour								
<u>Proposed Use:</u>								
School District Office	253 employees	528	76%	24%	$\ln(T) = 0.80\ln(X)+0.74$	133.2	42.1	175.3
<u>Existing Use:</u>								
School District Office	184 employees	528	76%	24%	$\ln(T) = 0.80\ln(X)+0.74$	-103.3	-32.6	-135.9
Net New AM Peak Hour Trip Generation =						29.9	9.5	39.4
PM Peak Hour								
<u>Proposed Use:</u>								
School District Office	253 employees	528	17%	83%	$\ln(T) = 0.89\ln(X)+0.12$	26.4	128.8	155.2
<u>Existing Use:</u>								
School District Office	184 employees	528	17%	83%	$\ln(T) = 0.89\ln(X)+0.12$	-19.9	-97.0	-116.9
Net New PM Peak Hour Trip Generation =						6.5	31.8	38.3

Notes:

¹ 69 employees will move from the Downtown to South Hill site based on detailed employee forecasts provided by the Puyallup School District.

Also, 2 employees will be added to the South Hill site.

² Land Use Code, trip rates/equations and directional splits based on ITE *Trip Generation* Manual, 11th Edition, 2021.