

MEMORANDUM

To: Tansy Schroeder – City Planner, City of Stanwood
From: Matthew Palmer, PE
Subject: Twin Cities Pole Yard
Date: March 30, 2022
Project: GTC #21-227



Gibson Traffic Consultants, Inc. (GTC) has been retained to provide a traffic analysis for the proposed Twin Cities Pole Yard development. The development is located at 7400 Pioneer Highway on the south side of Pioneer Highway in the City of Stanwood. A site vicinity map is included in Figure 1.

Specifically, this memorandum addresses the trip generation, trip distribution, access analysis and traffic mitigation fees. The site is currently vacant. The pole yard will be built on the site as well as a substation.

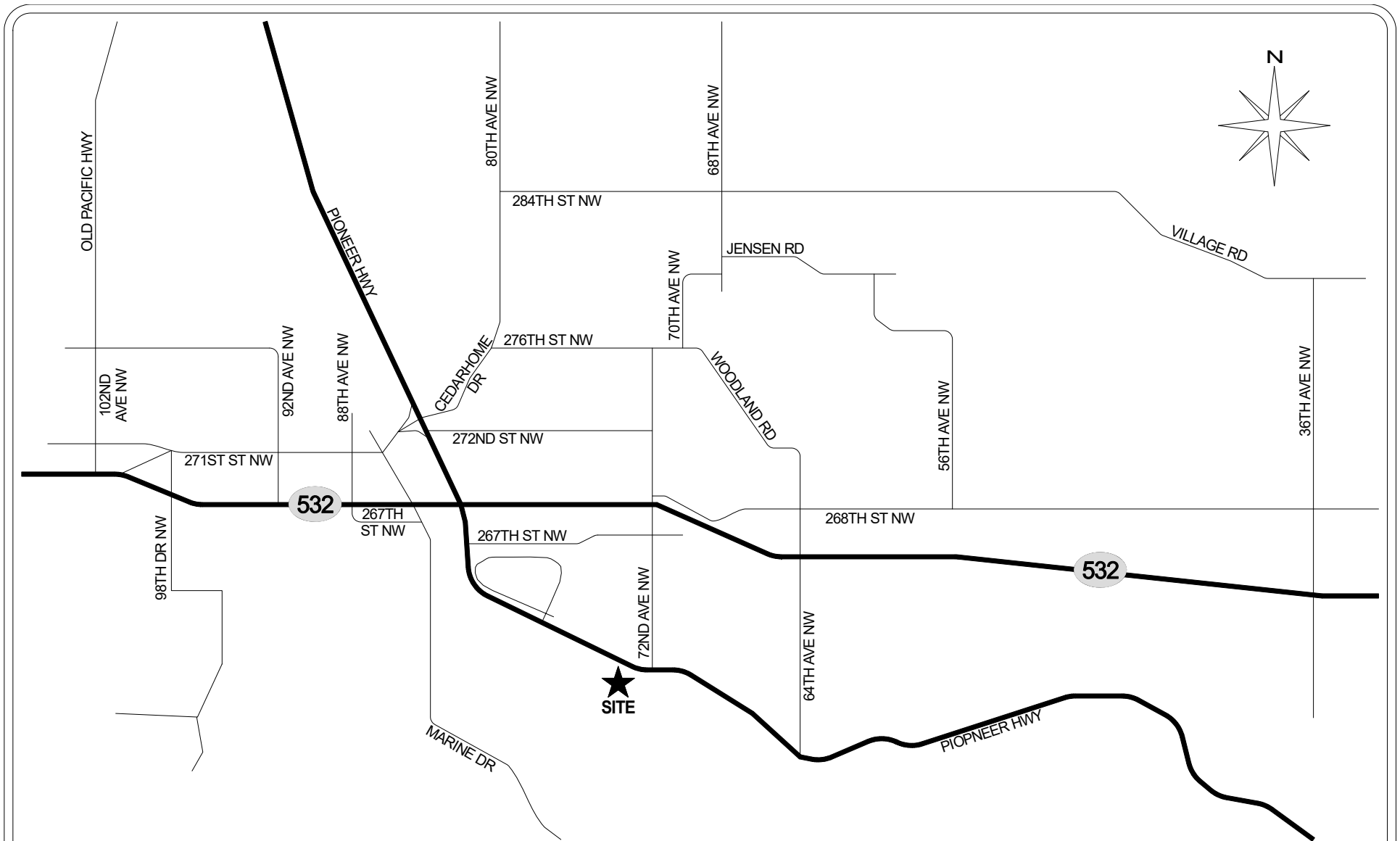
Matthew Palmer, responsible for this memorandum, is a licensed professional engineer (Civil) in the State of Washington and member of the Washington State section of ITE.

1. TRIP GENERATION

This site is a satellite storage yard for the main Arlington site so no scheduled visits/use just convenient to shorten trips for materials for northern jobs/workers that are having to travel to Arlington today. The client provided the following information regarding the operations of the pole yard:

- There are no permanent employees on site
- There will be no permanent heated structures on-site
- Employees visit the site at varying times between 6:30 AM and 3:30 PM
- Visits include picking-up and dropping-off power poles
- Access will be gated with access via a key card and security camera
- Based on Arlington Pole Yard data, no anticipated use after 3:30 PM

The Twin Cities Pole Yard is anticipated to generate between 6 and 10 daily trips using the operations information from the client. There is one trip that might occur during the AM peak-hour and one of that might occur during the PM peak-hour as a worst case.



GIBSON TRAFFIC CONSULTANTS

TRAFFIC IMPACT STUDY
GTC #21-227

TWIN CITIES POLE YARD

LEGEND



SITE VICINITY

FIGURE 1
SITE VICINITY
MAP

CITY OF STANWOOD

A count at the existing site in Arlington was also performed by the independent count firm, TDG on April 14, 2016 during the PM peak-hour to confirm the anticipated trip generation. One heavy vehicle entered the pole yard and two heavy vehicles exited the pole yard 15 minutes before the PM peak-hour of 4:00 PM to 5:00 PM. There were not any trips that occurred after 4 PM during the typical street peak hours. The proposed pole yard will be similar in size and use to the previous Arlington pole yard and is therefore not anticipated to be a significant trip generator.

2. TRIP DISTRIBUTION

The Twin Cities Pole Yard development will generate less than 3 peak-hour trips during the AM and PM peak-hours. A trip distribution should therefore not be required for the Twin Cities Pole Yard development.

3. ACCESS ANALYSIS

The Twin Cities Pole Yard is proposed to have access to Pioneer Highway, an urban major collector, with a posted speed limit of 35 mph. Based on the posted speed limit and roadway classification, the intersection sight distance required per the Stanwood Street and Utility Standards Minimum Street Design Standards Table is 390 feet measured from a point on the minor road 15 feet from the edge of the major road pavement. To both the east and west of the proposed site access there will be over 400 feet of sight distance.

4. MITIGATION

The Twin Cities Pole Yard is anticipated to generate 6-10 ADT. The Twin Cities Pole Yard development should therefore be required to pay traffic mitigation fees for the average of 8 ADT. The City of Stanwood has a mitigation fee of \$368.17 per ADT. This results in a mitigation fee to the City of Stanwood of \$2,945.36. No mitigation fees should be paid to Snohomish County or WSDOT as the AM and PM peak-hour trips is less than the threshold required for mitigation payments.

Attachments

NW 1/4 & SW 1/4, SEC 29, TWP 32N, R4E, W.M.

SITE DATA	
1) TAX ACCOUNT NO:	33042900300700
2) ZONING:	SR 5.0 (CITY OF STANWOOD)
3) SITE AREA:	19.05 ACRES
4) LEGAL DESCRIPTION:	FROM FIRST AMERICAN TITLE INSURANCE CO ORDER NO. NCS-871271-WA1 DATED 9-20-2017.
PARCEL A:	EXHIBIT D OF BOUNDARY LINE ADJUSTMENT 99-10334, RECORDED UNDER RECORDING NUMBER 2000030422 AND CORRECTED UNDER RECORDING NUMBER 2000030422, BEING A PORTION OF THE SOUTHWEST QUARTER OF SECTION 29, TOWNSHIP 32 NORTH, RANGE 4 EAST, W.M. IN SNOHOMISH COUNTY, WASHINGTON.
PARCEL B:	EXHIBIT C OF BOUNDARY LINE ADJUSTMENT 99-10334, RECORDED UNDER RECORDING NUMBER 2000030422 AND CORRECTED UNDER RECORDING NUMBER 2000030422, BEING A PORTION OF THE SOUTHWEST QUARTER OF SECTION 29, TOWNSHIP 32 NORTH, RANGE 4 EAST, W.M. IN SNOHOMISH COUNTY, WASHINGTON.
5) STREET ADDRESS:	7400 PIONEER HWY, STANWOOD, WA 98292

- GENERAL NOTES:**
- PROPERTY BOUNDARY AND TOPOGRAPHIC FEATURES ARE SHOWN PER THE FOLLOWING RECORDS: SNOHOMISH COUNTY RECORDS, BOOK 2000030422, PAGE 12, DATED FEBRUARY 13, 2019.
 - THE OUT SLOPES ALONG THE EAST AND NORTH SIDES OF THE PIT AND ABOVE THE PIT ARE SHOWN AS AN EROSION HAZARD AREA. ANY DISBURSANCE OF THESE SLOPES WILL BE NECESSARY TO MAINTAIN THE STABILITY OF THE PIT AND ABOVE THE PIT.
 - THE OUT SLOPES ALONG THE EAST AND NORTH SIDES OF THE PIT AND ABOVE THE NORTH SIDE OF THE PIT ACCESS ROAD INCLINED AT 40 PERCENT OR STEEPER AND ARE SHOWN AS A LANDSLIDE HAZARD AREA. ANY DISBURSANCE OF THESE SLOPES WILL BE NECESSARY TO MAINTAIN THE STABILITY OF THE PIT AND ABOVE THE PIT.
 - FLOODPLAIN ELEVATIONS ON THIS MAP ARE REFERENCED TO FEMA FIRM MAP NUMBER 17000-01-0001, WHICH SHOWS A 100-YR FLOOD PLAIN ELEVATION OF 13.68' AND A 500-YR FLOOD PLAIN ELEVATION OF 14.00'.

PROPOSED SUBSTATION EQUIPMENT AND FACILITIES:

- METAL CLAD SWITCHGEAR
- 15KV BUS (17" ALUM TUB)
- NEUTRAL GROUNDING REACTOR
- 28 MVA POWER TRANSFORMER
- 15KV CIRCUIT SWITCHER (SWITCH)
- 15KV BUS (17" ALUM TUB)
- 15KV SWITCH
- 33" TALL TRANSMISSION LINE TERMINATION STRUCTURE
- VOLTAGE TRANSFORMER
- TRANSMISSION LINE POLE
- UTILITY VAULT
- UNDERGROUND UTILITY VAULTS W/ PADIQUANT SWITCH CABINET
- CABLE PULLING VAULTS
- SECURITY FENCE W/ CONC CURB
- 3" WIDE CRUSHED ROCK PERIMETER W/ CONC CURB
- SUBSTATION CRUSHED ROCK SURFACE
- GRAVEL ACCESS ROAD
- PAVED ACCESS ROAD
- RETAINING WALL
- FENCE AND ACCESS CONTROL GATE
- GUARD RAIL
- OIL SPILL CONTAINMENT CURB AND SLAB WITH OIL STOP VALVE
- SKALE

DATUM

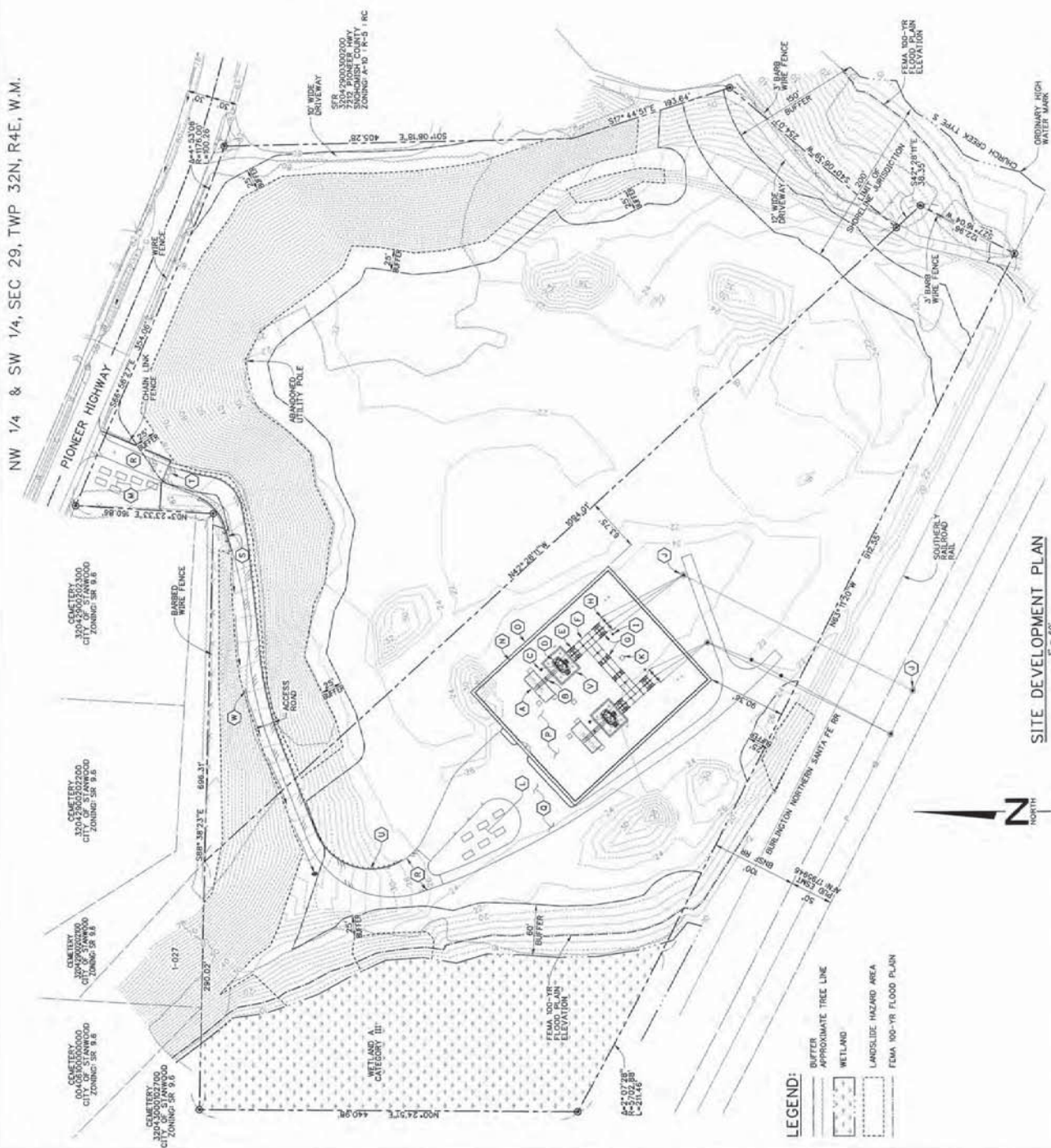
HORIZONTAL DATUM:
NAD 83 (IT IS DETERMINED BY GPS)
VERTICAL DATUM:
STATE VERTICAL DATUM (WADN)
NAVD 83 AS DETERMINED BY THE WSN.

CITY OF STANWOOD
APPROVED FOR CONSTRUCTION

BY: PUBLIC WORKS DIRECTOR DATE: _____
BY: COMMUNITY DEVELOPMENT DIRECTOR DATE: _____
PERMIT NO: _____

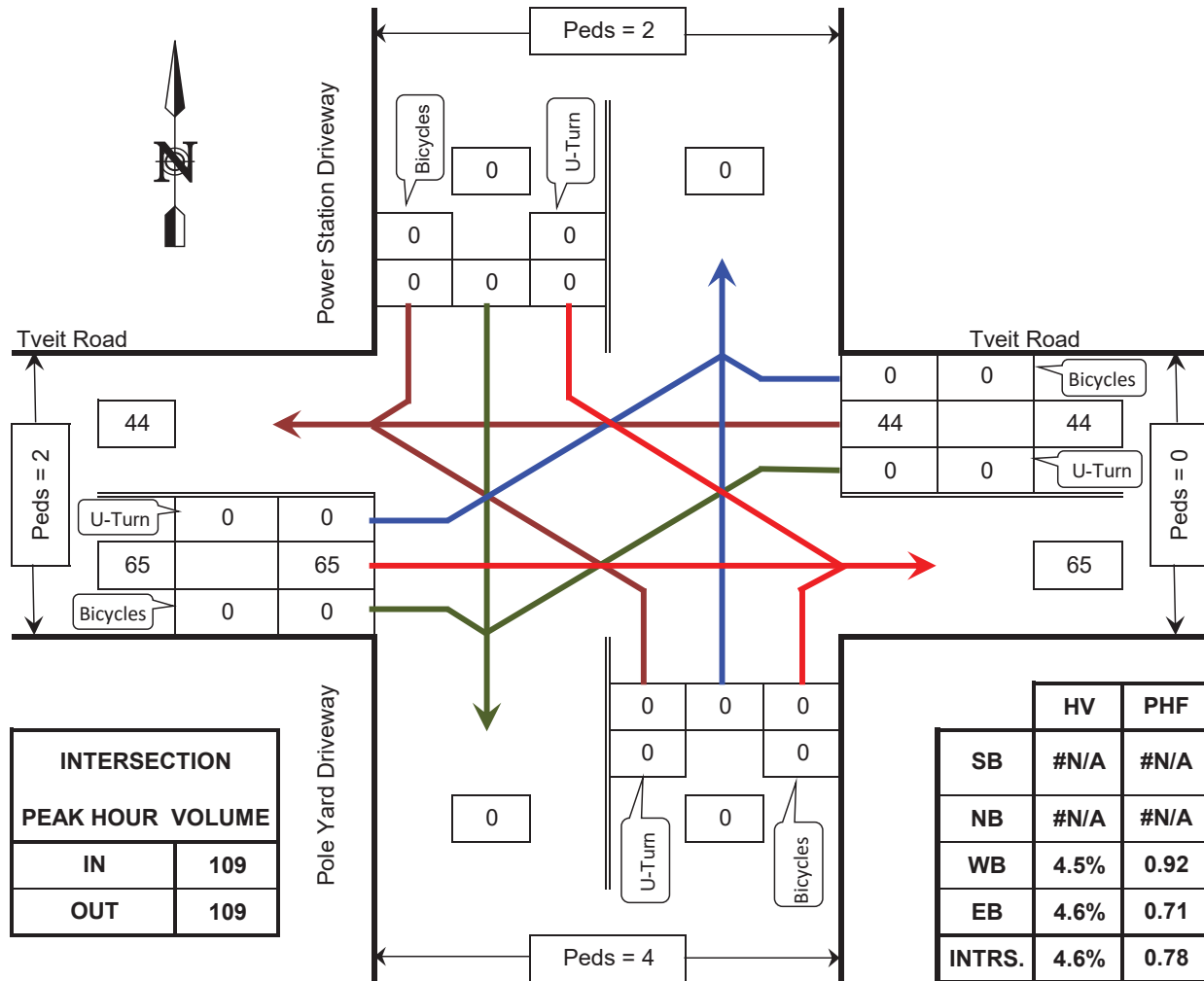
CALL 48 HOURS
BEFORE YOU DIG
1-800-424-5555

60' 30' 0' 60'
1" = 60' SCALE IN FEET



TURNING MOVEMENTS DIAGRAM

3:45 PM - 5:45 PM PEAK HOUR: 4:00 PM TO 5:00 PM



PHF = Peak Hour Factor
HV = Heavy Vehicle

Tveit Road @ Power Station Driveway/Pole Yard Driveway

Arlington, WA

COUNTED BY: CN

DATE OF COUNT: Thu. 4/14/16

REDUCED BY: CN

TIME OF COUNT: 3:45 PM - 5:45 PM

REDUCTION DATE: Thu. 4/14/16

WEATHER: Sunny



TRAFFIC DATA GATHERING

INTERSECTION TURNING MOVEMENTS REDUCTION SHEET

LOCATION: Tvelt Road @ Power Station Driveway/Pole Yard Driveway DATE OF COUNT: Thu. 4/14/16 COUNTED BY: CN
Arlington, WA TIME OF COUNT: 3:45 PM - 5:45 PM WEATHER: Sunny

TIME INTERVAL ENDING AT	FROM NORTH ON Power Station Driveway							FROM SOUTH ON Pole Yard Driveway							FROM EAST ON Tvelt Road							FROM WEST ON Tvelt Road							INTERVAL TOTALS	
	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right		
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:00 PM	0	0	0	0	0	0	0	5	0	2	0	2	0	0	0	0	0	0	3	0	0	0	0	0	0	18	1	30		
04:15 PM	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	1	0	0	12	0	0	0	0	2	0	11	0		
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	8	0	0	0	0	0	13	0	21		
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	18	0		
05:00 PM	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	0	0	0	23	0	35		
05:15 PM	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	5	0	0	0	0	1	0	15	0		
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	19	0		
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	19	0		
PEAK HOUR TOTALS	2	0	0	0	0	0	0	4	0	0	2	0	0	44	0	2	0	0	3	0	0	2	0	0	0	65	0	INTERSECTION		
ALL MOVEMENTS	0							0							44							65							109	
% HV	#N/A							#N/A							4.5%							4.6%							0.71	0.78
PEAK HOUR FACTOR	#N/A							#N/A							0.92							0.71							0.78	

HV = Heavy Vehicle
PHF = Peak Hour Factor

REDUCED BY: CN DATE OF REDUCTION: 4/14/2016

3:45 PM - 5:45 PM PEAK HOUR: 4:00 PM TO 5:00 PM

ROLLING HOUR COUNT

TIME INTERVAL	FROM NORTH ON Power Station Driveway							FROM SOUTH ON Pole Yard Driveway							FROM EAST ON Tvelt Road							FROM WEST ON Tvelt Road							INTERVAL TOTALS
	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	
1:45 PM - 2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2:00 PM - 3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2:15 PM - 3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2:30 PM - 3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2:45 PM - 3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3:00 PM - 4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3:15 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3:30 PM - 4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3:45 PM - 4:45 PM	0	0	0	0	0	0	0	9	0	2	0	2	0	0	0	0	0	2	0	0	41	0	0	0	5	0	60	1	104
4:00 PM - 5:00 PM	2	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	2	0	0	44	0	2	0	3	0	65	0	109	
4:15 PM - 5:15 PM	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	37	0	2	0	2	0	69	0	106	
4:30 PM - 5:30 PM	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	34	0	2	0	2	0	75	0	109	
4:45 PM - 5:45 PM	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	29	0	2	0	2	0	76	0	105	