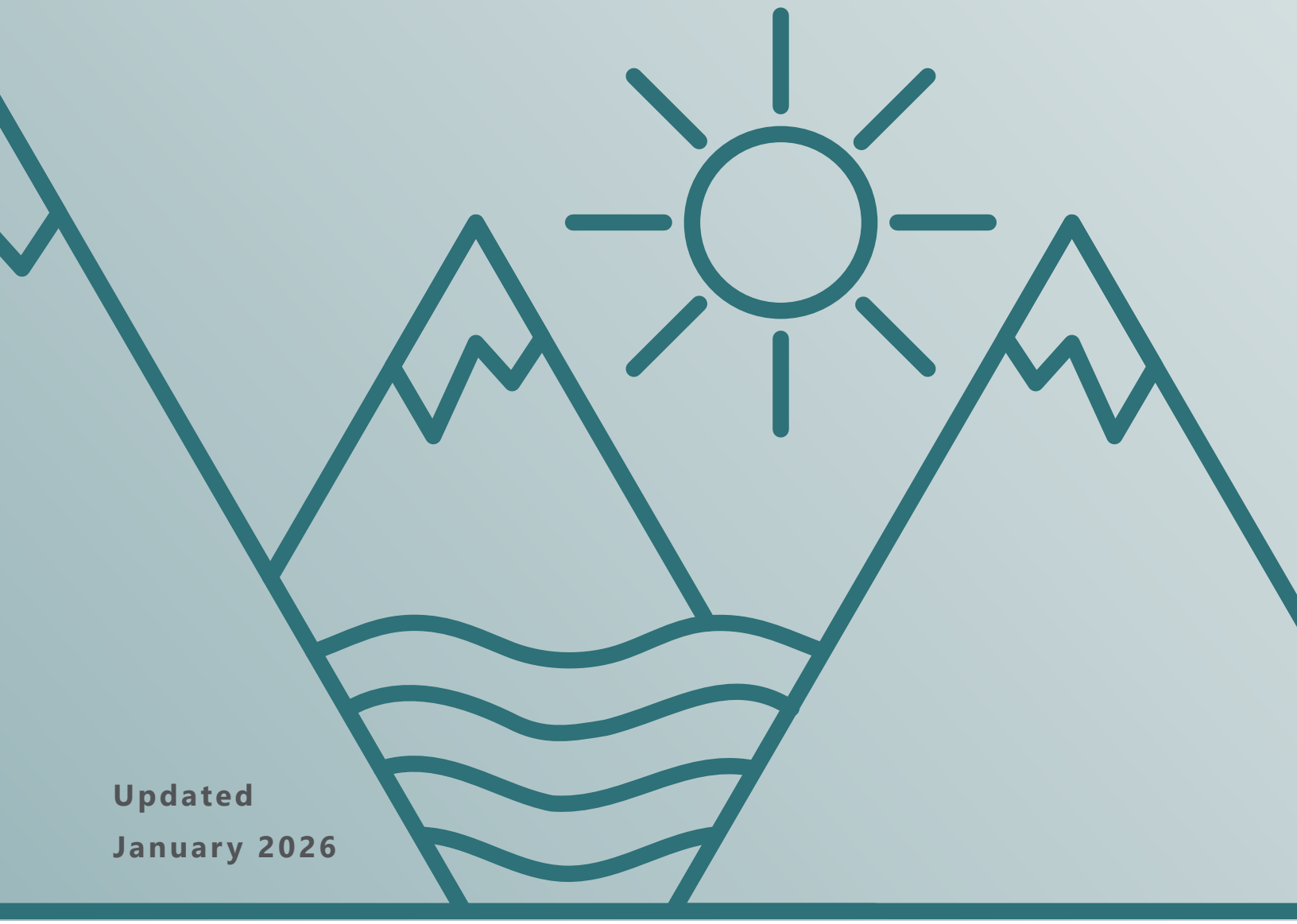
Whittier Moves

City of Whittier Transportation Master Plan

Traffic and Safety Analysis



Updated

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ACRONYMS

ACE ..... Affordable Clean Energy
ADEC ..... Alaska Department of Environmental Conservation
AGDC ..... Alaska Gasline Development Corporation
AIDEA ..... Alaska Industrial Development and Export Authority
AML ..... Alaska Marine Lines
ARRC ..... Alaska Railroad Corporation
bbl/hr ..... Barrels per hour
CBS ..... Cost Breakdown Structure
City ..... City of Whittier
CN ..... Canadian National
DEX ..... Denali Express
DOT&PF ..... Department of Transportation and Public Facilities
EIS ..... Environmental Impact Statement
FERC ..... United States Federal Energy Regulatory Commission
FTA ..... Federal Transit Administration
ID ..... Identification Card
JBER ..... Joint Base Elmendorf Richardson
LNG ..... Liquefied Natural Gas
LO/LO ..... Lift-On/Lift-Off
Mat-Su ..... Matanuska-Susitna Borough
Master Plan ..... Whittier Intermodal Master Plan
MEX ..... McKinley Express
MLLW ..... Mean Lower Low Water Level
PAMP ..... Port of Alaska Modernization Program
PCT ..... Petroleum and Cement Terminal
POA ..... Port of Alaska (Anchorage)
RFQ ..... Request for Qualifications
RO/RO ..... Roll-On/Roll-Off
ROW ..... Right of Way
SLF ..... Seward Loading Facility
USACE ..... United States Army Corps of Engineers

1. STUDY AREA OVERVIEW

The City of Whittier Transportation Master Plan (Whittier Moves) aims to coordinate transportation planning and project development in and around the City of Whittier to identify future transportation investments that support land use and movement patterns. The plan will be developed in close coordination with key stakeholders to foster collaboration among various organizations, creating a cohesive and agile transportation planning document. This plan will serve as a tool for securing discretionary grant funding and will support other project development opportunities.

Whittier's transportation systems serve multiple core functions including tourism, freight movement, and the Alaska Marine Highway System (AMHS). Accessed on the western side of the City area by the Anton Anderson Memorial Tunnel which serves both vehicle and rail traffic, or along the waterfront by cruise ship or ferry, the heart of the City of Whittier lies south of the railroad tracks and is accessed by the West Camp Road and Whittier Street intersection. The two cruise ship terminals, extensive day cruises from the local marina, and other tourism activities bring a high volume of pedestrian traffic to the waterfront portion of the City. A legacy of Whittier's military history is land ownership, which is predominantly held by the Alaska Railroad Corporation (ARRC) who also own the barge slip and freight uplands, the Anton Anderson Memorial Tunnel, and have extensive track configurations to support freight and passenger trains which interpose between the waterfront and the City core area. The City of Whittier, along with key transportation landmarks, are noted in Figure 1.

Figure 1. City of Whittier Study Area

2. FACILITY CHARACTERISTICS

2.1 Roadways in Whittier

The roadway facilities within Whittier are predominantly paved and maintained directly by the City of Whittier. The State of Alaska Department of Transportation and Public Facilities (DOT&PF) maintains the only arterial within the City boundary, and it is the paved, two-lane Camp Road extending to Whittier Access Road. This route is also the only overland route connection to Whittier through the Tunnel.

Table 1. Roadway Facility Characteristics

ROADWAY	LENGTH IN MILES	SURFACE TYPE	FUNCTIONAL CLASSIFICATION	MAINTENANCE AGENCY
Airstrip Access	0.099	Unpaved	Local	Unknown
Billings Street	0.132	Paved	Local	City of Whittier
Blackstone Road	0.398	Paved	Minor Collector	City of Whittier
Bunker Road	0.436	Unpaved	Local	City of Whittier
Camp Road	1.632	Paved	Minor Arterial	Alaska DOT&PF
Cove Creek Road/Reservoir Road	0.292	Unpaved	Local	City of Whittier
Depot Road	0.455	Paved	Minor Collector	City of Whittier
Eastern Avenue	0.209	Paved	Local	City of Whittier
Glacier Avenue	0.224	Paved	Local	City of Whittier
Harbor Loop Road	0.148	Paved	Local	City of Whittier
Harbor Triangle Road	0.145	Paved	Local	City of Whittier
Harbor View Drive	0.302	Paved	Local	City of Whittier
Head of the Bay Access/Gateway Road	0.365	Unpaved	Local	City of Whittier
Kenai Street	0.105	Paved	Local	City of Whittier
Kittiwake Court	0.151	Unpaved	Local	City of Whittier
Parkview	0.292	Unpaved	Local	City of Whittier
Portage Pass Access	0.312	Unpaved	Local	City of Whittier
Portage Street	0.089	Paved	Local	City of Whittier
Prince William Court	0.083	Unpaved	Local	City of Whittier
Reservoir Road	0.247	Unpaved	Local	City of Whittier
Reservoir Road	0.441	Unpaved	N/A	City of Whittier
Shotgun Cove Road	0.439	Paved	Local	City of Whittier
Shotgun Cove Road	1.525	Unpaved	Local	City of Whittier
Tank Farm Road	0.287	Unpaved	N/A	City of Whittier
Whittier Access Road	4.262	Paved	Minor Arterial	Alaska DOT&PF
Whittier Alley	0.113	Paved	Local	City of Whittier
Whittier Ferry Terminal Road	0.104	Paved	Local	Alaska DOT&PF
Whittier Street	0.551	Paved	Minor Collector	City of Whittier

2.2 Alaska Marine Highway System

The Alaska Marine Highway System (AMHS) provides ferry service to the community of Whittier. Service is available for people as well as vehicles. During the summer season, ferries arrive and depart daily. The most up-to-date AMHS information is available on their website at www.dot.alaska.gov/amhs/. The recently completed AMHS Long-Range Plan (2025) details overall system updates to advance AMHS operations within Alaska.

Table 2 includes the monthly totals for passengers and vehicles embarking and disembarking in Whittier 2024.

Table 2. AMHS Embarking and Disembarking Passengers and Vehicles at Whittier Ferry Terminal for 2024 by Month

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Embarking Vehicles	150	176	236	349	524	745	861	885	514	213	–	27
Disembarking Vehicles	155	185	233	250	491	847	962	980	634	222	–	25
Approx. Vehicles per Boat[1]	5	7	8	12	17	28	31	32	21	7	-	1

From the data included in Table 2, it can be inferred that ferry traffic for both passengers and vehicles reach their peak during the months of March through September. These peak months are aligned with the peak traffic volumes documented at the Anton Anderson Memorial Tunnel.

[1] Assuming 1 boat per day

3. TRAFFIC CHARACTERISTICS

3.1 Traffic Volumes

This section includes an overview of traffic traveling through the Anton Anderson Memorial Tunnel ("Tunnel"), embarking and disembarking at the Whittier AMHS terminal, as well as traffic volumes within Whittier collected by the planning team during the summer of 2025. The figures presented in this section are further elaborated on in the Whittier Moves Existing Conditions Element.

3.1.1 Tunnel Traffic Volumes

Vehicle traffic volumes through the Tunnel are largely seasonally dependent, seeing a large increase in traffic during the summer months. Table 3 includes traffic volumes by month for the Tunnel over a ten-year period (2014 to 2024). As shown, seasonality has increased over the years as summer tourism traffic continues to grow and off-season traffic remains effectively stagnant.

Table 3. Anton Anderson Memorial Tunnel Traffic Volumes 2014 to 2024

TOTAL MONTHLY TUNNEL TRAFFIC VOLUMES											
MONTH	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**
Jan	6,148	6,362	5,308	4,700	5,424	6,336	6,048	4,960	4,786	5,450	5,358
Feb	5,180	5,816	5,742	4,868	5,472	6,694	6,420	5,416	5,294	5,134	4,244
Mar	8,254	9,502	9,192	7,614	8,478	11,356	7,926	8,694	7,548	8,074	6,758
Apr	11,636	12,242	13,602	14,484	12,836	14,898	10,738	16,060	14,100	13,224	10,618
May	28,756	30,960	32,308	28,940	28,380	29,420	22,038	29,310	33,688	27,114	25,580
Jun	39,494	39,276	41,254	42,086	44,574	47,324	26,340	45,018	49,204	41,692	48,564
Jul	46,626	49,178	51,016	53,888	53,126	56,174	36,664	54,120	52,346	54,430	52,718
Aug	40,394	43,054	40,098	41,228	43,584	52,860	35,480	52,054	41,086	44,164	43,204
Sep	20,562	23,522	23,556	24,098	27,978	27,492	21,986	30,160	26,430	26,466	26,466
Oct	8,798	9,438	9,382	11,078	10,294	12,070	12,252	11,324	11,638	12,278	7,926
Nov	5,810	5,778	5,936	5,832	6,424	7,504	6,632	6,110	60,014	6,300	4,212
Dec	5,036	5,204	5,428	5,498	5,608	6,250	5,222	6,698	5,128	4,530	N/A*

** Incomplete data due to the timing of data received*

Figure 2 visualizes traffic volumes for the Tunnel by month over a five year period, emphasizing the gradual build up to peak volumes during the summer months. The volumes presented in both Table 3 and Figure 2 include all classes of vehicles that are allowed to use the Tunnel and represent bidirectional/round trip counts.

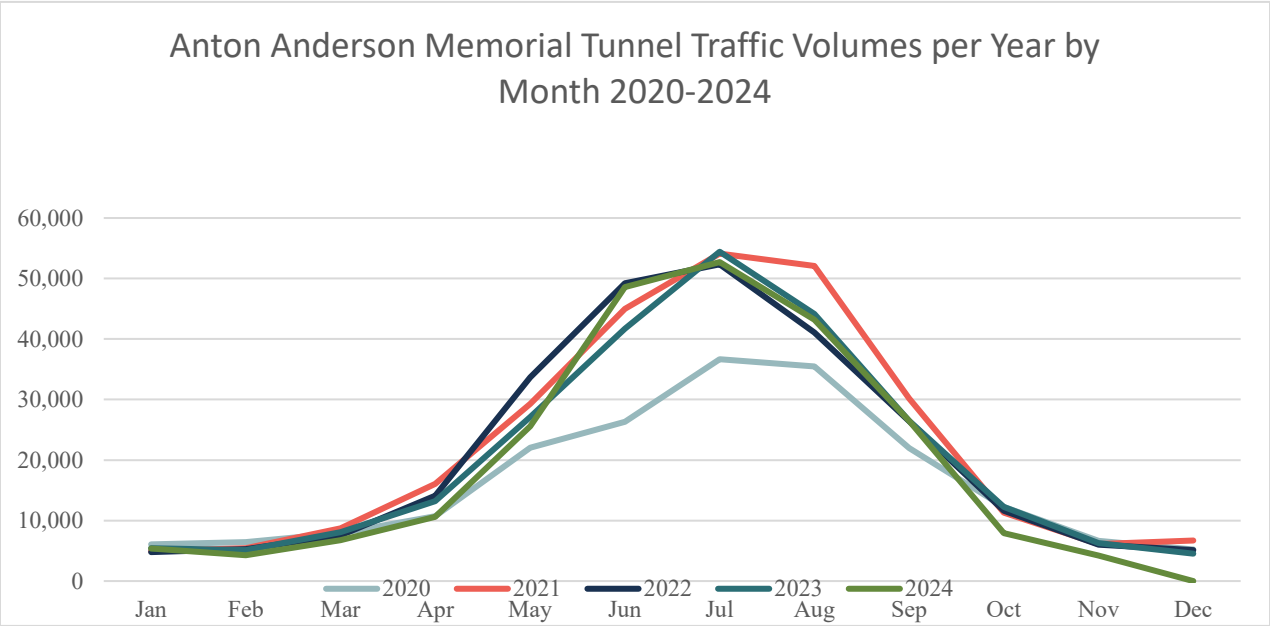

Figure 2. Anton Anderson Memorial Tunnel Traffic Volumes (2020-2024)

3.1.2 Traffic Volumes in Whittier

Existing needs for traffic were identified through capacity and safety analyses of the roadway segments. Needs were identified by taking available existing conditions data and comparing it to DOT&PF standards.

The existing peak hour turning movement volumes are shown in Table 3. As shown, the West Camp Road/Harbor Road and Whittier Street intersection is the central intersection of turning movement volumes in Whittier.

Figure 3. Existing 2025 Turning Movement Counts in Whittier

Level-of-Service (LOS) is a commonly used performance metric that quantifies intersection operations by using a "report card" rating (A through F) based on average time delay (in seconds) experienced by vehicles at the intersection. LOS A, B, and C indicate conditions where traffic moves without significant delays over periods of peak hour travel demand. LOS D and E are progressively worse operating conditions. LOS F represents conditions where average vehicle delay has become excessive, and demand has exceeded capacity. This condition is typically evident by the presence of long queues and delays.

The DOT&PF Highway Preconstruction Manual[2] adopts a minimum LOS standard from the American Association of State Highway and Transportation Officials (AASHTO) A Policy on Geometric Design of Highways and Streets 7th Edition.[3] The LOS threshold is based on context of population density, land use development, and balance between needs and service levels for each transportation type. Based on the characteristics of the streets in Whittier (arterials and collectors in a rural town), the minimum LOS threshold for design is LOS D. Traffic operations in the study area will be assessed according to the Highway Capacity Manual (HCM) 6th edition[4] delay methodology, when possible.

[2] Alaska Department of Transportation and Public Facilities, Alaska Highway Preconstruction Manual, January 2025

[3] American Association of State Highway and Transportation Officials, A Policy on Geometric Design of Highways and Streets, 7th Edition, 2018

[4] Transportation Research Board, Highway Capacity Manual 6th Edition: A Guide for Multimodal Mobility Analysis (HCM 6)

Table 4 shows the existing Levels of Service and Intersection Delays at the five study intersections in Whittier. As shown, all intersections meet LOS standards in the existing conditions.

Table 4. Existing 2025 Operations at Whittier Study Intersections

INTERSECTION (2025)	PEAK HOUR (12:50 – 1:50 PM)	
	DELAY (SECONDS)	LOS
Harbor Road/West Camp Road & Whittier Street	14.1	B
West Camp Road/Harbor View Drive & Harbor Road	10.3	B
Whittier Street/Blackstone Road & Eastern Avenue/Depot Road	9.3	A
Shotgun Cove Road & Blackstone Road	9.5	A
Whittier Cruise Terminal on West Camp Road	0.0	A

Future 2035 and 2045 traffic conditions can be estimated through the use of a linear growth rate applied to traffic counts. As shown in Table 5, data provided by DOT&PF and the Alaska Railroad Corporation indicate the overall growth of traffic between Whittier and the rest of Alaska is constrained by the Tunnel. The higher growth of daily traffic on either side of the Tunnel implies increased traffic patterns locally that do not extend regionally, as the Tunnel traffic is growing at a much slower 0.25 percent per year.

Table 5. Growth Rates Over Time at Permanent Count Station[5] Near The Tunnel

YEAR	ADT	% CHANGE FROM PREVIOUS YEAR
2015	1083	N/A
2016	1105	2.0%
2017	1123	1.6%
2018	1247	11.0%
2019	1192	-4.4%
2021	1120	-6.0%
2022	1060	-5.4%
2023	970	-8.5%
2024	1170	20.6%
	Average	**1.38%**

[5] https://alaskatrafficdata.drakewell.com/sitedashboard.asp?node=AKDOT_CCS&cosit=000011100496

Further examination of the Tunnel traffic revealed the busiest hours of each day may be nearing capacity for Tunnel vehicle throughput.[6] In 2025, the busiest hour of the day during summer months (often within the 5:00 -7:00 PM range) sees 170 vehicles per direction per hour. This implies the tunnel is operating at 94 percent of capacity during peak periods, leaving only six percent available for future growth potential within the same hour. When comparing the existing numbers to the tunnel capacity, the Tunnel's current growth rate of 0.25 percent per year can be sustained over the next 20 years, but the Tunnel will increasingly encounter possible capacity constraints when the composition of vehicles skews toward longer and slower vehicles. For the purpose of this analysis the 1.38 percent per year growth rate will be used for intersections within Whittier. Future volumes are shown in Figures 4 and 5.

Figure 4. Future 2035 Turning Movement Counts in Whittier

[6] Assuming five second headway between standard vehicles, the hourly capacity of the Tunnel is 180 vehicles per direction.

Figure 5. Future 2045 Turning Movement Counts in Whittier

Table 6 and Table 7 show the anticipated 2035 and 2045 delays and levels of service for the same five intersections shown in existing conditions, with the future predicted volumes applied. As expected, the Harbor Road/West Camp Road and Whittier Street intersection is the worst performing intersection within the roadway network due to the high amount of turning movement volumes. All intersections continue to meet applicable standards.

Table 6. Future 2035 Operations at Whittier Study Intersections

INTERSECTION (2035)	PEAK HOUR (12:50 – 1:50 PM)	
	DELAY (SECONDS)	LOS
Harbor Road/West Camp Road & Whittier Street	16.8	C
West Camp Road/Harbor View Drive & Harbor Road	11.0	B
Whittier Street/Blackstone Road & Eastern Avenue/Depot Road	9.8	A
Shotgun Cove Road & Blackstone Road	10.1	B
Whittier Cruise Terminal on West Camp Road	0.0	A

Table 7. Future 2045 Operations at Whittier Study Intersections

INTERSECTION (2045)	PEAK HOUR (12:50 – 1:50 PM)	
	DELAY (SECONDS)	LOS
Harbor Road/West Camp Road & Whittier Street	19.0	C
West Camp Road/Harbor View Drive & Harbor Road	11.2	B
Whittier Street/Blackstone Road & Eastern Avenue/Depot Road	9.9	A
Shotgun Cove Road & Blackstone Road	10.2	A
Whittier Cruise Terminal on West Camp Road	0.0	A

3.2 Impacts and Patterns

3.2.1 Head of the Bay Impacts

Starting from late summer of 2024, the Head of the Bay development to the north of Gateway Drive increased Whittier's cruise ship docking capacity. Combined with the existing waterfront cruise ship terminal, Whittier can now receive up to three cruise ships per day. Industry data shows the 85th percentile cruise ship visiting Whittier in 2025 holds 3,300 passengers. The cruise ship passengers disembark at Glacier Creek Cruise Terminal and the majority board tour buses and shuttles provided. Peak hour volumes are estimated to be around 180 vehicles per cruise ship in the morning and midday peak hours, which was determined using Table 8 below.

Table 8. Cruise Ship Passenger Travel Mode (3,300 Passenger Ship)

CRUISE SHIP TRAVEL MODE	DAILY			AM PEAK HOUR			MIDDAY PEAK HOUR		
	Split	Passengers	Person Trips[1]	Enter	Exit	Total	Enter	Exit	Total
Pedestrians/Rail	9%	297	594	0	223	223	223	0	223
Bus/Coach Trips[2]	75%	2,475	4,950	0	1,856	1,856	1,856	0	1,856
Van Trips[3]	15%	495	990	0	371	371	371	0	371
Taxi Trips[4]	1%	33	66	0	25	25	25	0	25
Stay Onboard	0%	-	-	-	-	-	-	-	-
Totals[5]	100%	3,300	6,600	0	2,475	2,475	2,475	0	2,475

[1] Number of trips assumes each assigned passenger disembarks and is replaced by a new embarking passenger.

[2] Average Bus/Coach occupancy measured 25 occupants per bus/coach.

[3] Van occupancy estimated at 4 occupants per vehicle.

[4] Average Taxi occupancy measured 2 occupants per vehicle.

[5] It was determined that 75 percent of passengers disembarked during the AM peak, with the remaining 25 percent disembarking in off-peak hours, and 75 percent of the new passengers embarked during the midday peak, with the remaining 25 percent embarking in off-peak hours. The PM peak did not see any passengers embarking or disembarking.

The top destinations for tour buses leaving Head of the Bay are through the Tunnel to Portage Glacier, Turnagain Pass, and onward to Anchorage. Several tour buses circulate through the Core Area while waiting for Tunnel access and provide tourists with a quick history of Whittier. This new travel pattern at Head of the Bay has significantly increased the volume of turning movements at the Gateway Drive and Portage Glacier Road intersection. The development is not expected to reach full buildout until 2027.

3.2.2 Traffic Patterns in Whittier Due to Waterfront Growth

Figure 6. Trip Ends in Whittier, Spring 2025

Figure 6 depicts the distribution of vehicle trips ending in Whittier on an average Thursday in Spring 2025. As shown in this figure, a large concentration of the trips in the town end along the waterfront, specifically on West Camp Road. Whittier Street also sees a large proportion of the trip ends, but it is focused more along the waterfront. As more development occurs in Whittier, such as commercial, industrial, boat launch, parking, eco-tourism, and transportation related development, this trend of traffic near the water is expected to grow. West Camp Road is not only heavily trafficked due to being the only arterial road into town, but also because of the increasing level of development along it. This trend is also increasing the number of pedestrians in the waterfront area.

4. SAFETY

4.1 Crashes

Between 2019 and 2023, there were four reported vehicle crashes within the City of Whittier. The DOT&PF provided crash site data for the four crashes and the project team mapped and identified all sites in Figure 7, below. Table 9, below, includes the date of the crash, weather conditions, injury status, and manner of crash.

Figure 7. Crash Locations in Whittier, 2019-2023

Table 9. Crashes within the Planning Area Between 2019 and 2023

Date	Reporting Agency	Lighting	Weather	Injury Status	Manner of Crash
August 2019	Whittier Police Department	Daylight	Ice/Frost	Possible Injury	Ran Off Roadway – Left (tree)
May 2020	Driver Report	Dark – Unknown Lighting	Snow	Possible Injury	Motor Vehicle In-Transport
April 2021	Whittier Police Department	Daylight	Snow	No Apparent Injury	Parked Motor Vehicle
July 2022	Whittier Police Department	Daylight	Dry	No Apparent Injury	Ran Off Roadway – Left (Overturn/Rollover)

4.2 Near-Misses

The lack of recorded crashes within the last five years in Whittier obscures concerns voiced by interested parties[7] that conflicts between pedestrians and vehicles within the waterfront area are increasing. Near-miss data uses video imaging software to estimate the time elapsed between the paths of two objects crossing (vehicle and vehicle, vehicle and pedestrian, or vehicle and bicycle).

Near-miss data collected at each study intersection for a sample week during the summer in 2025 is displayed in Table 10. Only one near-miss incident between vehicles was recorded at Harbor Road/West Camp Road and Whittier Street. All other conflicts noted in Table 9 are between vehicles and non-motorized users. As shown, the rate of conflict with non-motorized users is highest at the Whittier Cruise Terminal on West Camp Road during the weekend when tourism is heaviest.

Table 10. Near-Miss Data at Whittier Study Intersections, July 2025

INTERSECTION	TOTAL HOURS STUDIED	TOTAL CONFLICTS		
		0.0 – 1.5S	1.5 – 2.0S	2.0 – 3.0S
Harbor Road/West Camp Road & Whittier Street	16	0	1	4
West Camp Road/Harbor View Drive & Harbor Road	16	0	0	4
Whittier Street/Blackstone Road & Eastern Avenue/Depot Road	16	0	0	0
Shotgun Cove Road & Blackstone Road	16	0	0	0
Whittier Cruise Terminal on West Camp Road (Weekday)	16	0	0	2
Whittier Cruise Terminal on West Camp Road (Weekend)	48	6	8	21

[7] The Whittier Harbormaster and other members of the community voiced their concerns about the crossing.

5. RECOMMENDATIONS

5.1 Traffic Safety Analysis

As part of this project, a traffic safety analysis was conducted to identify traffic safety issues within the town of Whittier. Due to the size of the town, the levels of traffic, and the lack of recorded crashes, there fortunately were not a large number of concerns. A few worth noting are detailed below.

5.1.1 Whittier Cruise Terminal Crossing

As demonstrated in the near-miss data, the existing pedestrian crosswalk at the Whittier Cruise Terminal is a focal point for vehicle-pedestrian conflict, especially during summer weekends. The existing crosswalk (shown in Figure 8) is frequently used by passengers disembarking ships to venture into town, and then to return to their ship later.

Figure 8. Whittier Cruise Terminal Crossing

Additional evaluation of the existing crosswalk assessed the appropriateness of the existing striped crossing. The Alaska Traffic Manual recommends candidate crosswalk locations as a function of the number of vehicle lanes, presence of a raised median, speed limit, and the vehicle ADT.

The existing pedestrian volume for the crosswalks can be seen below with the results of this analysis in Table 11. As shown in the table, no additional facilities are needed, apart from more clear signage.

Table 11. Pedestrian Crossing Evaluation (Summer 2025, Weekend)

LOCATION	SPEED LIMIT	PEDESTRIAN PEAK HOUR VOLUME	AK TRAFFIC MANUAL SECTION 3B.18 RECOMMENDATION	AK TRAFFIC MANUAL SECTION 4A.100 RECOMMENDATION	EXISTING FACILITIES
Crosswalk at Cruise Terminal	25 MPH	35	Marked crosswalk	Non-electrical	Striped Crosswalk/ No Signage

Recommendations include upgrading the existing crossing with appropriate signage and considering advance stop-bars with yield to pedestrian signage and adding a pedestrian landing to the south side of the crossing with a tactile warning strip.

5.1.2 Gateway Drive and Portage Glacier Road

Near the east side of the Anton Anderson Memorial Tunnel, there is a three-leg intersection that is only controlled by a yield sign on the north leg. This intersection, shown in Figure 9, was marked as one of concern in a public survey[8] that DOWL conducted as part of the Whittier Moves project. At this intersection, there are vehicles coming out of and heading towards the Tunnel, as well as traffic going to and from the Whittier Bay Campground and the Glacier Creek Cruise Terminal.

Figure 9. Gateway Drive & Portage Glacier Road Intersection

A noteworthy characteristic of the traffic at this intersection (and throughout Whittier) is the high percentage of heavy vehicles, specifically tour buses, boats on trailers, and commercial vehicles. In 2024, out of the 120,075 total vehicles recorded going through the tunnel, 11,757 of them were classified as heavy vehicles (roughly 10 percent). Furthermore, traffic counts performed across Whittier from July 2025 find heavy vehicle percentages ranging from nine percent to 29 percent. This intersection has become more of a concern since the Glacier Creek Cruise Terminal opened in late summer of 2024, after being constructed from 2023-2024. The opening of this development has added more traffic to Gateway Drive, bringing tourists into the Whittier

[8] DOWL Project Public Comment Input, July 2025

waterfront and downtown area. There is no traffic data for this intersection yet, as the Glacier Creek Terminal was not fully operational, and resulting turning movements would be an undercount. Cruise terminals generate between 75-100 peak hour trips due to tour bus and shuttle traffic. In addition, hundreds of pedestrian trips using non-motorized facilities can be generated in a single hour. These numbers combined with existing traffic counts in town, along with the poor sight distances offered to Southbound drivers arriving at this intersection, creates the need for an upgrade of the yield sign to a stop sign and clearing of vegetation to restore intersection sight distance.

5.2 Future Expansion

5.2.1 Exploring Two-Way Access in the Tunnel

Traffic at the Anton Anderson Memorial Tunnel is growing at a rate that is sustainable in terms of keeping the existing rotating one-way access. Based on the 0.25 percent growth rate, the tunnel will still be under capacity (180 vehicles/direction/hour) in the 2045 future scenario. However, depending on the daily or even hourly vehicle mixture and volume, increases in incidental cycle failures should be expected. This will have the effect of spreading the peak hour traffic from a single hour into the surrounding hours of the day to take advantage of off-peak capacity. Expansion to all-year two-way access is still the long-term, viable option to alleviate this constraint.

5.2.2 Future Rail Expansion

In August 2025, the Whittier Terminal Master Plan completed by the Alaska Railroad Corporation explored adding a second main track from Whittier Creek to the tunnel entrance.[9] The Plan noted a second track will "improve capacity and provide for more flexible freight and passenger operations within Whittier." The Plan also recommends a "level passenger boarding platform with dedicated loading tracks to reduce interference with passenger and freight movements." Adding the proposed second track is consistent with the existing volumes referenced in this study. During design and implementation, consideration should be given to not interfering with any pedestrian paths or roadways in the vicinity.

[9] Whittier Terminal Master Plan, Section 5.2. HDR. 2025.