CUP24-1001 Traffic Impact
Additional Comments for Open Public Record
March 25, 2024

Introduction and Summary

The Camas High School outdoor tennis courts were originally developed and currently used as ITE land use code 525 "Institutional - High School." For traffic generation analysis, when tennis courts are part of a high school, they are typically included within the broader land use category of the school because they are an integrated part of the high school's facilities. The trip generation characteristics for the entire high school (students, staff, events, sports and extracurricular activities) are captured under ITE Land Use Code 525, encompassing all facilities on campus, including the tennis courts.

A repeated error in the applicant's submitted traffic analysis, and during testimony at the March 20 hearing, is the statement that the existing eight outdoor courts at Camas High School are currently land use code 490 "Tennis Courts". ITE Land Use Code 490 applies to independent or public tennis courts that are not associated with a larger facility, such as a school, park, or recreational complex. These courts have distinct trip generation patterns, which differ from those integrated within a school.

The existing outdoor tennis courts were not developed and do not operate separately from the high school. There is no existing dedicated public access or parking, as a separated development would have. The correct and only ITE land use code to apply to the existing condition at all of the high school's athletic facilities is "Institutional - High School" ITE Land Use Code 525.

The proposed conditional use as an indoor tennis center will ***change*** the use for a portion of the high school from ITE land use code 525 "High School" to land use code 491 "Racket/Tennis Club."

We calculate that the difference in proposed vs. existing land uses will result in an increase to the expected trip generation of 430 net new average Daily trips, along with 38 net new PM Peak Hour trips, as calculated below. This is above the City of Camas threshold of 200 net new Daily trips that requires a TIA/TIS to be prepared.

Background

To estimate both the existing and proposed trips, the ITE trip generation manual, 11th edition, provides trip generation values based on land use categories or codes. For some land use categories, such as code 491 "Racket/Tennis Club," the values provided are noted in the manual as potentially low quality due to a relatively low number of determining studies included for these facility types.

For the proposed project at the Camas High School, the applicant commissioned a study of traffic counts at Evergreen Tennis, 5225 NW 38th Ave, which is a four court indoor tennis club in a commercial zone within the City of Camas. The results of the study are summarized in applicant's March 4, 2025 "Supplemental Analysis" (hearing packet ex. 29, page 489 table 1). This study observed 54.5 Daily trips per court and 6.75 trips per court during the PM Peak hour. In addition, in an email dated February 10, 2025 (ex. 28, page 467,) Evergreen Tennis provided additional data to the city based on a 5-day sample period in February 2025 showing 49.8 daily trips per court. In response, the applicant agreed that this is a similar value to its own study conclusions, "the collected data

approximately match the estimates provided by the concerned party." (ex. 29, page 494, last paragraph).

Therefore, in the calculations provided below, we utilize the applicant's values for estimating trip generation at the proposed facility. These values are stated as *"**54.5 Daily trips per court and 6.75 trips per court during the PM Peak hour**"* (ex. 29 page 489 table 1).

Existing Use of CHS Tennis Courts, ITE Land Use Code 525 "High School"

A repeated error in the applicant's submitted analysis, and during testimony at the March 20 hearing, is the statement that the existing eight outdoor courts at Camas High School are the same ITE land use as the proposed land use for an indoor tennis center. The current approved land use of the Camas High School tennis courts, along with the rest of the high school, is an institutional land use "High School," ITE land use code 525 (see Attachment A). The existing eight outdoor tennis courts were only previously approved as part of the High School; they were not approved or developed separately with separate land use considerations applied, nor separate traffic and parking analysis conducted as a land use code 490 development. The only approved existing use of the outdoor tennis courts from a land use and planning perspective is the high school's own use in its educational and athletic programs. Therefore only use under ITE code 525 "High School" should be considered to provide an estimate of the existing traffic generation conditions.

For ITE land use code 525, the expected PM peak hour generation is stated at 0.14 trips per student. This is because even though the bell schedule is earlier in the day, it is recognized that there is always some activity in the PM peak hour on weekdays at a high school. This includes athletics such as tennis, but also other extracurricular activities such as rehearsals for the arts and various clubs that hold meetings and events at hours outside of the regular school day. ITE Land Use Code 525 is intended to be inclusive of all traffic generation by the school, including extracurricular uses and athletics.

For apportioning the PM peak hour trips to the existing eight outdoor tennis courts, we use the ITE provided land use code 525 value of 0.14 trips per tennis participating student athlete. This represents existing ITE trip generation attributable to high school use of the tennis courts. The boys fall tennis season and the girls spring tennis season is approximately four months in total per year. The tennis seasons are when the courts are in use by the high school teams for tennis practices and matches.

Because the proposed use is indoors and the existing use is outdoors, further corrections to the existing use estimate are necessary to remove outdoor inclement weather days. We used the 20 year average rain probability during the Boys Fall season and Girls Spring season (see Attachment B for data). The Boys Fall season shows a 26% probability of existing use getting rained out (16 of 61 rainy days in September and October) and the Girls Spring season shows a 41% probability of existing use getting rained out (25 of 61 rainy days in March and April). For purposes of calculation, an average rain out probability for both seasons of 33.5% is used.

Outside of the high school tennis team seasons, 8 months of the year, the existing PM Peak hour trips attributed to high school use of its existing outdoor tennis courts is zero. We note that in summer months (July and August) it is typically too hot in the afternoon to play or practice on uncovered outdoor tennis courts, and in the winter (Nov-Feb), the probability of rain in Camas on any given day climbs to an average of 43% and the outdoor courts generally do not dry out enough to support any after school uses in the winter months.

Proposed Project Net New Trip Generation (Average Daily Trips and PM Peak Hour Trips)

The net new trip generation for the proposed project is the applicant's provided value of trips minus the existing use trip credits. We use the applicant's stated 54.5 Daily trips per court with no adjustments for conditioning the hours of operation. Since we do not have the full expected hours of operation stated at this time, it is anticipated that the USTA PNW will seek to maximize commercial hours of operation, if not specifically conditioned to more limited hours. Most likely, it will operate similar to the hours it operates at the Vancouver Tennis Center, typically 7:30 AM to 9:30 PM. The applicant has stated its hours open to the public will "avoid the bell times" and that hours are "subject to change." Unless the commercial hours are specifically conditioned, we expect the applicant will simply schedule the start and end session times open to the public to operate commercially while avoiding the bell times. For example, the first session 7:30-9 AM sufficiently avoids the morning bell time of 8:45 AM and an afternoon session of 3-4:30 PM would avoid the afternoon bell time at 3:15 PM, allowing the center to operate commercially throughout the entire school day.

We will assume student athlete tennis participants are 100 each for the Boys and Girls seasons and that they arrive to school in the morning and depart during the PM Peak hour at the level stated for ITE land use code 525 of 0.14 trips per tennis student athlete, and twice that amount at 0.28 (coming and going) for the average daily trip count calculation. On rain days the existing PM Peak hour trips are excluded from existing use credit as outdoor practice or matches on the tennis courts would be canceled.

Net New Trips for the proposed project is calculated as Trips minus Existing Use Trip Credits adjusted for rain out probability, as follows:

<u>During High School Tennis Seasons (4 months/year)</u>

Net New Daily Trip Generation = Trips – Existing Trips x (1-RainOutProbability)
=(54.5 daily trips per court x 8 courts) – (0.28 trips per athlete x 100) x (1-0.335) = 417

Net New PM Peak Hour Trip Generation = Trips – Existing Trips x (1-RainOutProbability)
=(0.14 trips per athlete x 100) - (0.14 trips per athlete x 100) x (1 – 0.335) = 4.7

<u>Outside of High School Tennis Seasons (8 months/year)</u>

Net New Daily Trip Generation = Trips – Existing Trips
= (54.5 daily trips per court x 8 courts) – (0 trips per athlete) = 436

Net New PM Peak Hour Trip Generation
= (6.75 PM Peak hour trips per court x 8 courts) – (0 trips per athlete) = 54

Average Net New Trips is calculated as the average of the 4-month tennis season and 8 month out-of-season values over 12 months:

Average Net New Daily Trip Generation
*= [(417x4 months) + (436x8 months)] / 12 months = **430 average net new Daily trips***

Average Net New PM Peak Hour Trip Generation
*= [(4.7x4 months) + (54x8 months)] / 12 months = **38 average net new PM Peak Hour trips***

Conclusion

The proposed conditional use as an indoor tennis center will change the use for a portion of the high school from ITE land use code 525 “High School” to land use code 491 “Racket/Tennis Club.” By the methods provided above, we conclude that the proposed tennis center will generate an average of **430 net new Daily trips, along with an average of 38 net new PM Peak Hour trips**. This is above the City of Camas threshold of 200 net new Daily trips that requires a TIA/TIS to be prepared.

Signed,

Clark and Caryn Vitek, Owners
Evergreen Tennis, LLC
5225 NW 38th Ave

Attachments
A: ITE Land Use Codes Table excerpt, 11th edition
B: Camas Weather Table

ATTACHMENT A : ITE EXISTING AND PROPOSED LAND USE CODES

ITE Trip Generation Manual, 11th Edition
PM Peak Hour Net New Trips by ITE Land Use Category

	Land Use Category - ITE 11th Edition	ITE Land Use Code	ITE Average PM Peak Hour Trip Rate[1]	Unit	Pass-By Trip Reduction Factor[3]	Net New Trip Rate	Trip Length Adjustment Factor	Net New Trips
Saturday, Peak Hour of Generator	Automobile Racetrack[2]	453	0.28	Attendees	1.00	0.28	1.00	0.28
	Dog Racetrack[2]	454	0.15	Attendees	1.00	0.15	1.00	0.15
	Professional Baseball Stadium[2]	462	0.15	Attendees	1.00	0.15	1.00	0.15
	Ice Skating Rink	465	1.33	1,000 sf GFA	1.00	1.33	1.00	1.33
PM Peak Hour of Generator Only	Snow Ski Area	466	33.77	Lifts	1.00	33.77	1.00	33.77
PM Peak Hour of Generator Only	Bingo Hall[2]	470	0.48	Seats	1.00	0.48	1.00	0.48
	Casino	473	22.61	1,000 sf GFA	1.00	22.61	1.00	22.61
	Amusement Park[2]	480	0.50	Employee	1.00	0.50	1.00	0.50
	Water Slide Park[2]	482	0.28	Parking Spaces	1.00	0.28	1.00	0.28
	Soccer Complex	488	16.43	Fields	1.00	16.43	1.00	16.43
	Tennis Courts[2]	490	4.21	Court	1.00	4.21	1.00	4.21
PROPOSED USE	Racket/Tennis Club[2]	491	3.82	Court	1.00	3.82	1.00	3.82
	Health/Fitness Club	492	3.45	1,000 sf GFA	1.00	3.45	1.00	3.45
	Athletic Club	493	6.29	1,000 sf GFA	1.00	6.29	1.00	6.29
	Recreational Community Center	495	2.50	1,000 sf GFA	1.00	2.50	1.00	2.50
	INSTITUTIONAL & MEDICAL							
	Military Base	501	0.39	Employees	1.00	0.39	1.00	0.39
	Elementary School	520	0.16	Student	1.00	0.16	1.00	0.16
	Middle School/Junior High School	522	0.15	Student	1.00	0.15	1.00	0.15
EXISTING USE	High School	525	0.14	Student	1.00	0.14	1.00	0.14
Weekday	School District Office	528	2.84	1,000 sf GFA	1.00	2.84	1.00	2.84
	Private School (K-8)	530	0.26	Student	1.00	0.26	1.00	0.26
	Private School (K-12)	532	0.17	Student	1.00	0.17	1.00	0.17
	Private High School	534	0.19	Student	1.00	0.19	1.00	0.19
	Charter Elementary School	536	0.16	Student	1.00	0.16	1.00	0.16
PM Peak Hour of Generator Only	Charter School (K-12)	538	0.73	Student	1.00	0.73	1.00	0.73
	Junior/Community College	540	0.11	Student	1.00	0.11	1.00	0.11
	University/College	550	0.15	Student	1.00	0.15	1.00	0.15
	Church	560	0.49	1,000 sf GFA	1.00	0.49	1.00	0.49
Fri, PM Peak Hour	Synagogue[2]	561	2.92	1,000 sf GFA	1.00	2.92	1.00	2.92
Fri, PM Peak Hour	Mosque[2]	562	4.22	1,000 sf GFA	1.00	4.22	1.00	4.22
	Day Care Center	565	11.12	1,000 sf GFA	0.56	6.23	1.00	6.23
	Cemetery	566	0.46	Acres	1.00	0.46	1.00	0.46
	Adult Detention Facility[2]	571	0.48	1,000 sf GFA	1.00	0.48	1.00	0.48
	Fire and Rescue Station	575	0.48	1,000 sf GFA	1.00	0.48	1.00	0.48
	Museum[2]	580	0.18	1,000 sf GFA	1.00	0.18	1.00	0.18
	Library	590	8.16	1,000 sf GFA	1.00	8.16	1.00	8.16
	Hospital	610	0.86	1,000 sf GFA	1.00	0.86	1.00	0.86
	Nursing Home	620	0.59	1,000 sf GFA	1.00	0.59	1.00	0.59
	Clinic	630	3.69	1,000 sf GFA	1.00	3.69	1.00	3.69
	Vet Clinic	640	3.53	1,000 sf GFA	1.00	3.53	1.00	3.53
	Free Standing Emergency Room	650	1.52	1,000 sf GFA	1.00	1.52	1.00	1.52

ATTACHMENT B : CAMAS WEATHER DATA
20 year averages
(source: https://en.climate-data.org)

WEATHER BY MONTH // WEATHER AVERAGES CAMAS

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	January	February	March	April	May	June	July	August	September	October	November	December
Avg. Temperature °C (°F)	3.5 °C (38.4) °F	4.4 °C (40) °F	6.6 °C (43.8) °F	9.2 °C (48.6) °F	12.9 °C (55.2) °F	15.7 °C (60.3) °F	19.6 °C (67.2) °F	20.1 °C (68.1) °F	16.7 °C (62.1) °F	11.4 °C (52.5) °F	6.6 °C (43.9) °F	3.4 °C (38.1) °F
Min. Temperature °C (°F)	1.1 °C (34) °F	1.4 °C (34.5) °F	2.9 °C (37.2) °F	5 °C (40.9) °F	8.3 °C (47) °F	11.1 °C (51.9) °F	13.8 °C (56.9) °F	14.3 °C (57.8) °F	11.8 °C (53.3) °F	7.8 °C (46.1) °F	4 °C (39.2) °F	1.2 °C (34.1) °F
Max. Temperature °C (°F)	7.4 °C (45.3) °F	9 °C (48.2) °F	11.8 °C (53.3) °F	15 °C (59) °F	18.9 °C (66) °F	22 °C (71.7) °F	27.2 °C (80.9) °F	27.8 °C (82) °F	23.6 °C (74.4) °F	16.6 °C (61.9) °F	10.4 °C (50.8) °F	6.7 °C (44) °F
Precipitation / Rainfall mm (in)	223 (8)	173 (6)	183 (7)	149 (5)	93 (3)	63 (2)	17 (0)	22 (0)	57 (2)	153 (6)	233 (9)	247 (9)
Humidity(%)	84%	83%			71%	69%	60%	58%			85%	85%
Rainy days (d)	13	12	13	12	9	7	3	3	5	11	13	14
avg. Sun hours (hours)	4.5	5.4	6.2	7.4	8.3	8.6	10.0	9.5	8.2	6.3	4.9	4.1

GIRLS

BOYS

Data: 1991 - 2021 Min. Temperature °C (°F), Max. Temperature °C (°F), Precipitation / Rainfall mm (in), Humidity, Rainy days. Data: 1999 - 2019: avg. Sun hours