



TRANSPORTATION PLANNING RULE EVALUATION

DATE: November 29, 2022

TO: Chris Green | HHPR Inc.

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SUBJECT: Tualatin Basalt Creek Area
Transportation Planning Rule Evaluation

P22057-000

This memorandum presents the findings of an evaluation of potential traffic impacts associated with the proposed zone change for the 156.43-acre Basalt Creek Planning Area in Tualatin, Oregon. The City desires to update the Manufacturing Park (MP) Zoning District to be consistent with the City's Basalt Creek Concept Plan. The desired zoning is Basalt Creek Employment (BCE).

The proposed zone change must be in accordance with Oregon Administrative Rule (OAR) 660-012-0060, the Transportation Planning Rule (TPR). The intent of the TPR (OAR 660-12-0060) is to ensure that future land use and traffic growth is consistent with transportation system planning and does not create a significant effect on the surrounding transportation system beyond currently allowed uses.

The definition of a significant effect varies by jurisdiction; however, no such definition is provided in the City of Tualatin code currently. According to the Oregon Highway Plan (OHP),¹ a net increase of 400 daily trips qualifies as a significant effect. While the OHP is not applicable to city streets, it provides a reasonable estimate of a significant effect for TPR analysis purposes.

This memorandum documents the expected trip generation of the reasonable worst-case development potential under the existing and proposed zoning, and whether the proposed zone change will create a significant effect on the transportation system.

¹ Action 1F.5, Oregon Highway Plan, Oregon Department of Transportation, Amended May 2015.

EXISTING ZONING (MP) TRIP GENERATION

Under the existing Manufacturing Park (MP) zoning there are several permitted land uses,² including the ones listed below. The MP zone allows development of modern, large-scale specialized manufacturing land uses and research facilities as well as a limited amount of commercial services.

- Manufacturing and assembly facilities
- Restaurants or delis
- Health or fitness facilities
- Trade or vocational school
- Child daycare
- Fire station
- Office
- Convenience store

For the purposes of identifying the reasonable worst case trip generation for the existing MP zoning, only the highest trip generation land uses were considered. A summary of the trip generation rates for different land uses permitted under the existing MP are presented in Table 1.

TABLE 1: TRIP GENERATION RATES FOR PERMITTED LAND USES UNDER MP ZONING

LAND USE (ITE CODE)	UNITS ^A	WEEKDAY TRIP GENERATION RATES ^B	
		DAILY	PM PEAK HOUR
MANUFACTURING (140)	KSF	4.75	0.74
HEALTH OR FITNESS CLUB (492)	KSF	31.10 ^C	3.11
TRADE/VOCATIONAL SCHOOL (540)	KSF	10.84 ^D	1.44
DAYCARE (565)	KSF	47.62	11.12
MEDICAL CLINIC (630)	KSF	37.60	3.69
OFFICE (710)	KSF	10.84	1.44
DRIVE-IN BANK (912)	KSF	100.35	21.01
FAST FOOD RESTAURANT WITH DRIVE-THROUGH WINDOW (934)	KSF	467.48	33.03
CONVENIENCE STORE (851)	KSF	762.28	49.11

^A KSF = 1,000 square-feet

^B Trip generation rates are from the Institute of Transportation Engineers Trip Generation Manual, 11th Edition.

^C Daily trip generation rate for Health or Fitness Club (492) is not provided in the ITE Manual. Rate shown in table is 10 times the PM peak hour rate.

^D Daily trip generation rate for Trade/Vocational School (540) is not provided in the ITE Manual. Rate shown in table is the same as "Office" (710).

² A list of permitted land uses for MP zoning can be found in the Tualatin Development Code, Chapter 62.

Based on size of 156.43-acre area, we have assumed that manufacturing space, fitness club, trade/vocational school, daycare, medical clinic, office, drive-in bank, fast food restaurants, and convenience store could be accommodated. Table 2 presents the daily and peak hour trip generation for the reasonable worst-case development scenario under MP zoning. As shown, the area would generate up to 20,466 weekday daily trips and 2,450 p.m. peak hour trips.

TABLE 2: REASONABLE WORST-CASE TRIP GENERATION FOR MP ZONING

LAND USE (ITE CODE)	SIZE	AVERAGE WEEKDAY TRIP GENERATION	
		DAILY	PM PEAK HOUR
MANUFACTURING (140)	2,185 KSF	10,379	1,617
HEALTH OR FITNESS CLUB (492)	5 KSF	160	16
TRADE/VOCATIONAL SCHOOL (540)	10 KSF	108	14
DAYCARE (565)	5 KSF	238	56
MEDICAL CLINIC (630)	10 KSF	376	37
OFFICE (710)	20 KSF	217	29
DRIVE-IN BANK (912)	5 KSF	502	105
FAST FOOD RESTAURANT WITH DRIVE-THROUGH WINDOW (934)	2 x 5 KSF	4,675	330
CONVENIENCE STORE (851)	5 KSF	3,811	246
TOTAL TRIPS GENERATED		20,466	2,450

PROPOSED ZONING (BCE) TRIP GENERATION

Under the proposed Basalt Creek Employment (BCE) zoning, similar types of land uses are allowed as the Manufacturing Park (MP) zoning. However, this zoning also includes all retail sales and services, medical office, and prohibits drive-through establishments. For the purposes of identifying the reasonable worst case trip generation for the proposed BCE zoning, only the reasonable highest trip generation land uses were considered. A summary of the trip generation rates for different land uses permitted under the proposed BCE are presented in Table 3.

TABLE 3: TRIP GENERATION RATES FOR PERMITTED LAND USES UNDER BCE ZONING

LAND USE (ITE CODE)	UNITS ^A	WEEKDAY TRIP GENERATION RATES ^B	
		DAILY	PM PEAK HOUR
INDUSTRIAL PARK (130)	KSF	3.37	0.34
MANUFACTURING (140)	KSF	4.75	0.74
WAREHOUSING (150)	KSF	1.71	0.18
HEALTH OR FITNESS CLUB (492)	KSF	31.10 ^C	3.11
TRADE/VOCATIONAL SCHOOL (540)	KSF	10.84 ^D	1.44
DAYCARE (565)	KSF	47.62	11.12
OFFICE (710)	KSF	10.84	1.44
MEDICAL-DENTAL OFFICE (720)	KSF	36.00	3.93
STRIP RETAIL (822)	KSF	54.45	6.59
FOOD CART POD (926)	Food Cart	17.86 ^E	6.16
FAST FOOD RESTAURANT, NO DRIVE-THROUGH WINDOW (933)	KSF	450.49	33.21
COFFEE SHOP, NO DRIVE-THROUGH WINDOW (936)	KSF	438.01	32.29

^A KSF = 1,000 square-feet

^B Trip generation rates are from the Institute of Transportation Engineers Trip Generation Manual, 11th Edition.

^C Daily trip generation rate for Health or Fitness Club (492) is not provided in the ITE Manual. Rate shown in table is 10 times the PM peak hour rate.

^D Daily trip generation rate for Trade/Vocational School (540) is not provided in the ITE Manual. Rate shown in table is the same as "Office" (710).

^E Daily trip generation rate for Food Cart Pod (926) is not provided in the ITE Manual. Therefore, collected trip data from the Food Truck Pod on State Street in Salem was used to estimate daily trips.

^F Daily trip generation rate for Coffee Shop (936) is not provided in the ITE Manual. Rate shown in table is the PM peak hour rate multiplied by the ratio of the fast-food daily rate to the PM peak hour rate.

Based on size of 156.43-acre area, the reasonable worst-case development includes an industrial park, manufacturing facility, warehousing, fitness club, trade/vocational school, daycare, office, medical office, strip retail, and food and drink establishments.

Per the City zoning code for Basalt Creek Employment (BCE), the commercial and retail land uses (eating and drinking establishments, medical office, etc.) are limited to 5,000 square feet for an individual use or a total of 20,000 square feet for multiple uses on a site. They must also be located on a parcel that has frontage along Grahams Ferry Road. Because of these restrictions, the

size of existing parcels along Grahams Ferry Road, and the County’s access spacing standards for Grahams Ferry Road, the reasonable amount of expected commercial and retail development in this area is limited.

Table 4 presents the daily and peak hour trip generation for the reasonable worst-case development scenario under BCE zoning. As shown, the area would generate 20,416 weekday daily trips and 2,386 p.m. peak hour trips.

TABLE 4: REASONABLE WORST-CASE TRIP GENERATION FOR PROPOSED BCE ZONING

LAND USE (ITE CODE)	SIZE	AVERAGE WEEKDAY TRIP GENERATION	
		DAILY	PM PEAK HOUR
INDUSTRIAL PARK (130)	215.5 KSF	726	73
MANUFACTURING (140)	1,696 KSF	8,056	1,255
WAREHOUSING (150)	244.5 KSF	418	44
HEALTH OR FITNESS CLUB (492)	5 KSF	160	16
TRADE/VOCATIONAL SCHOOL (540)	5 KSF	54	7
DAYCARE (565)	8 KSF	381	89
OFFICE (710)	10 KSF	108	14
MEDICAL-DENTAL OFFICE (720)	10 KSF	360	39
STRIP RETAIL (822)	20 KSF	1,089	132
FOOD CART POD (926)	10 Carts	179	62
FAST FOOD RESTAURANTS, NO DRIVE-THROUGH WINDOW (933)	2 x 5 KSF	4,505	332
COFFEE SHOP, NO DRIVE-THROUGH WINDOW (936)	2 x 5 KSF	4,380	323
TOTAL TRIPS GENERATED		20,416	2,386

COMPARISON OF TRIP GENERATION

The previous sections show the reasonable worst-case development potential of the property under the existing zoning and the proposed zoning. As shown in the table below, a net decrease of 50 weekday daily trips and 64 PM peak hour trips would result from the zone change.

TABLE 5: COMPARISON OF NET NEW TRIP GENERATION

ZONING SCENARIO	AVERAGE WEEKDAY TRIP GENERATION	
	DAILY	PM PEAK HOUR
<i>Proposed (BCE Zoning) Trips (Table 4)</i>	20,416	2,386
<i>Existing (MP Zoning) Trips (Table 2)</i>	20,466	2,450
NET DIFFERENCE (PROPOSED – EXISTING)	-50	-64

TRANSPORTATION PLANNING RULE FINDINGS

After evaluating the reasonable worst-case development potential of both the existing (MP) and proposed (BCE) zoning, the proposed zone change will result in a net decrease of 50 trips per day and 64 PM peak hour trips. Because the zone change results in a net decrease of vehicle trips, the proposed zone change is not expected to have a significant effect on the surrounding transportation system and the Transportation Planning Rule requirements are satisfied.

SUMMARY AND RECOMMENDATION

The proposed zone change for the 156.43-acre property in Tualatin, Oregon, consists of rezoning from Manufacturing Park (MP) to a new zone, Basalt Creek Employment (BCE), and would result in an estimated reasonable worst-case trip **decrease of 50 daily trips and 64 PM peak hour trips.**

The requirements of Oregon Administrative Rule (OAR) 660-012-0060, the Transportation Planning Rule (TPR), must be met for proposed changes in land use zoning. The intent of the TPR (OAR 660-12-0060) is to ensure that future land use and traffic growth is consistent with transportation system planning and does not create a significant effect on the surrounding transportation system beyond currently allowed uses.

Based on the reasonable worst-case trip generation evaluation, it can be concluded that the proposed zone change will not significantly impact and would cause “no further degradation” to the City of Tualatin transportation system. Therefore, this application complies with TPR requirements.

Please let me know if you have any questions or comments.