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Technical Memorandum

To: David Phillips, VF Law

From: Michael Ard, PE

Date: November 14, 2024

Re: CPA 24-04/ZMA 24-03 – Banks Zone Change Transportation Analysis

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This memorandum is written to provide information and analysis related to a proposed annexation, Comprehensive Plan amendment and zone change for two properties in the City of Banks, Oregon. The subject properties are located in the northwest corner of the intersection of Oregon Highway 47 (Nehalem Highway) at NW Cedar Canyon Road/NW Banks Road and are designated as lots 2300 and 5600. Under the current proposal, both properties would be annexed into the City of Banks with MU zoning, after which a lot line adjustment would increase the area lot 5600 from 2,406 square feet to 19,867 square feet (with a corresponding decrease in lot 2300 from 26,754 square feet to 9,293 square feet. Finally, lot 5600 would be subject to a Comprehensive Plan amendment and rezone from MU (Mixed Use) to I (Industrial) zoning.

The annexation of the two properties into the City of Banks and concurrent zone change to MU (Mixed Use Residential) zoning is in conformance with the City of Banks' Comprehensive Plan. Additionally, the city's current Transportation System Plan already accounts for development of the subject properties under that MU zoning. Accordingly, the initial annexation of the two properties and the change to MU zoning are permissible without additional transportation analysis per Oregon's Transportation Planning Rule OAR 660-012-0060(9). Therefore, no detailed analysis is provided herein for the initial annexation and zone change to MU zoning.

However, the city's Comprehensive Plan and Transportation System Plan did not anticipate the subsequent application of Industrial zoning on any portion of the affected properties. As such, a transportation analysis is required in order to determine whether the Comprehensive Plan amendment and change from Mixed-Use to Industrial zoning would significantly affect an existing or planned transportation facility.

To assess the potential transportation impacts of the proposed change in zoning, estimates of the trips that could be generated under the "reasonable worst case" development scenarios were prepared for both the Mixed-Use and Industrial zoning. The resulting change in trips between the two scenarios represents the change in traffic which could result from the proposed zone change.

Following the assessment of the potential change in site trips, a discussion of the requirements of Oregon's Transportation Planning Rule (OAR 660-012-0060) and City of Banks Code Section 151.305(A) is also included herein.

Ultimately, the portion of the property that will be subject to the change from Mixed-Use to Industrial zoning has an area of 19,867 square feet. It was assumed that any potential future redevelopment of this property would have a lot coverage of 25 percent of the site area. This results in an expected gross floor area of approximately 5,000 square feet for future development within the subject tax lot.

BACKGROUND MU ZONING - TRIP GENERATION

Under the MU zoning, lot 5600 could be developed with a variety of small-scale retail uses, a day care center, medical offices, a restaurant without a drive-through, and multifamily residential homes. Most of these potential land uses were assumed to have a gross floor area of 5,000 square feet; however, the assumed gross floor area for a fast-food restaurant without a drive-through window was reduced to 2,000 square feet since this use may have more significant parking and circulation needs than the other uses permitted within the zone. Finally, trip generation for the potential multifamily residential use was determined in accordance with the City of Banks' code, which permits one dwelling unit for the first 5,000 square feet of lot area plus one additional dwelling unit for each additional 1,000 square feet of lot area. Accordingly, a 19,867 square foot lot could be developed with up to 15 dwelling units.

The trip generation estimates for the Mixed-Use zoning were prepared using data from the *Trip Generation Manual, 11th Edition*, published by the Institute of Transportation Engineers.

The daily and peak-hour trip volumes projected under the MU zoning are detailed in Table 1 below. Detailed trip generation worksheets are also included in the attached technical appendix. It should be noted that the trip projections for the Day Care, Shopping Center, and Fast-Food land uses include reductions of 44 percent, 40 percent, and 55 percent, respectively to account for pass-by trips. Pass-by trips are those which are already traveling along the adjacent roadway and simply turn into the site while on the way to another destination. Since these trips would travel on the adjacent roadways even if they did not visit the site, they are generally considered not to impact operation of streets and intersections beyond the point where the site access driveway intersects the nearest public street.

Table 1 - Background MU Zoning "Reasonable Worst Case Development Scenario"

Potential Land Use	AM Peak Hour	PM Peak Hour	Daily Trips
Multi-Family Residential (15 Units)	6	8	102
Day Care Center (5,000 sf)	31	31	132
Medical Office Building (5,000 sf)	16	20	180
Shopping Center (5,000 sf)	7	20	162
Fast-Food w/o Drive-Thru (2,500 sf)	39	30	405
Worst Case Trip Generation	**39**	**31**	**405**

Based on the analysis, the reasonable worst case development scenario under the existing zoning would be development with a 2,000 square foot fast-food restaurant with no drive-through window. This use would generate 39 trips during the morning peak hour, 30 trips during the evening peak hour, and 405 daily trips. A 5,000 square foot day care facility would generate slightly more trips during the evening peak hour (31 site trips); however, the morning peak hour and daily trip volumes would be lower under that permitted land use.

PROPOSED INDUSTRIAL ZONING - TRIP GENERATION

Under the proposed Industrial zone, lot 5600 could be developed with a light industrial or manufacturing facility, a small industrial park, warehousing, utilities, a specialty trade contractor, a veterinary clinic, a research lab, or an auto service center. For each of these potential site uses, a building area of 5,000 square feet was assumed.

Again, the trip generation estimates for the Industrial zoning were prepared using data from the *Trip Generation Manual, 11th Edition*, published by the Institute of Transportation Engineers.

The daily and peak-hour trip volumes projected under the MU zoning are detailed in Table 2 below. Detailed trip generation worksheets are also included in the attached technical appendix.

" **Table 2 - Proposed I Zoning "Reasonable Worst Case Development Scenario"**

Potential Land Use	AM Peak Hour	PM Peak Hour	Daily Trips
Light Industrial (5,000 sf)	4	3	24
Industrial Park (5,000 sf)	2	2	16
Manufacturing (5,000 sf)	3	4	24
Warehousing (5,000 sf)	1	1	8
Utility (5,000 sf)	12	11	62
Specialty Trade Contractor (5,000 sf)	8	10	50
Veterinary Clinic (5,000 sf)	18	18	108
Reseach Lab (5,000 sf)	5	5	56
Auto Service Center (5,000 sf)	11	16	160
Highest Trip Generation	**18**	**18**	**160**

For the proposed Industrial zoning, a veterinary clinic would generate the highest peak-hour volumes, while an automobile service center would generate the highest daily traffic volumes. It should be noted that the ITE data for automobile service centers does not include daily traffic projections; however, a common rule of thumb is to assume daily traffic volumes will be approximately 10 times the evening

peak hour volume. Conservatively using this approach to estimate the daily trip generation for the auto care center results in the highest projected daily traffic volumes for permitted uses within the zone.

It should also be noted that marijuana sales facilities are permitted within the Industrial zone, subject to the requirements of Code Section 151.080. However, per Section 151.080(C)(8), a marijuana sales facility "shall not be located within… 500 feet from any public or private park or library", or within "Four hundred feet from any residentially zoned property." Since the subject property is immediately adjacent to mixed-use residential zoning and within 500 feet of the Banks Vernonia State Trail Trailhead, a marijuana sales facility cannot be approved on the subject property. Accordingly, this land use was not considered in the "reasonable worst case" development scenario analysis.

"MU" Vs. "I" Zoning - Trip Generation Comparison

Based on the analysis of the two reasonable worst case development scenarios, the potential increase in site trips resulting from the proposed change from Mixed-Use to Industrial zoning is detailed in Table 3 below.

Table 3 - Net Change in Trip Generation

	AM Peak Hour	PM Peak Hour	Daily Trips
Proposed Industrial Zoning	18	18	160
- Background MU Zoning	-39	-31	-405
Net Change In Site Trips	**-21**	**-13**	**-245**

Based on the analysis, the proposed change from Mixed Use to Industrial zoning will result in a net reduction in site trips under the "reasonable worst case" development scenarios. Accordingly, the proposed zone change would not result in negative impacts to the surrounding transportation system.

Transportation Planning Rule Analysis

To approve the requested zone change on the subject property, the City of Banks must find that the requirements of Oregon's Transportation Planning Rule (OAR 660-012-0060) are met. This rule provides guidance regarding whether and how the transportation impacts of a plan amendment must be mitigated. The relevant portions of the Transportation Planning Rule are quoted below, along with responses specific to the proposed zone change.

660-012-0060
Plan and Land Use Regulation Amendments

(1) If an amendment to a functional plan, an acknowledged comprehensive plan, or a land use regulation (including a zoning map) would significantly affect an existing or planned

transportation facility, then the local government must put in place measures as provided in section (2) of this rule, unless the amendment is allowed under section (3), (9) or (10) of this rule. A plan or land use regulation amendment significantly affects a transportation facility if it would:
(a) Change the functional classification of an existing or planned transportation facility (exclusive of correction of map errors in an adopted plan);

No changes are proposed to the functional classification of existing or planned transportation facilities as part of this project.

(b) Change standards implementing a functional classification system; or

No changes are proposed to the standards implementing the functional classification system as part of this project.

(c) Result in any of the effects listed in paragraphs (A) through (C) of this subsection based on projected conditions measured at the end of the planning period identified in the adopted TSP. As part of evaluating projected conditions, the amount of traffic projected to be generated within the area of the amendment may be reduced if the amendment includes an enforceable, ongoing requirement that would demonstrably limit traffic generation, including, but not limited to, transportation demand management. This reduction may diminish or completely eliminate the significant effect of the amendment.

(A) Types or levels of travel or access that are inconsistent with the functional classification of an existing or planned transportation facility;
(B) Degrade the performance of an existing or planned transportation facility such that it would not meet the performance standards identified in the TSP or comprehensive plan; or
(C) Degrade the performance of an existing or planned transportation facility that is otherwise projected to not meet the performance standards identified in the TSP or comprehensive plan.

Under the reasonable worst case development scenario, the proposed zone change from MU to I zoning would result in a reduction in site trips. While some trips associated with industrial site uses would be expected to consist of large trucks, the highest trip uses within the Industrial zoning are not associated with large trucks, and assuming that no more than 20 percent of daily site trips are heavy truck trips none of the permitted site uses would be expected to generate more than 10 heavy truck trips per day. Additionally, the adjacent street network consists of streets which can accommodate heavy trucks, and such trips are consistent with the functional classification of the roadways. Accordingly, the proposed zone change will not result in any of the effects listed.

Based on the trip generation projections and the requirements of Oregon's Transportation Planning Rule, the proposed zone change will not result in a significant effect on the transportation system, and no mitigation is necessary or recommended in conjunction with the proposed change from Mixed-Use to Industrial zoning.

CITY CODE REQUIREMENTS ANALYSIS

In addition to the requirements of state law, City of Banks Code Section 151.305(A) states:

(A) Amendments that affect transportation facilities. Amendments to the Comprehensive Plan and Zoning Code which significantly affect a transportation facility shall assure that allowed land uses are consistent with the function, capacity, and level of service of the facility identified in the Banks Transportation System Plan.

Based on the prior analysis of Oregon's Transportation Planning Rule, the proposed change from MU to I zoning will result in a net reduction in site trips. As such, the proposed Comprehensive Plan amendment and zone change will not "significantly affect a transportation facility." Accordingly, no mitigation measures are necessary to comply with the requirements of City code.

CONCLUSIONS

Based on the analysis, the City of Banks may proceed with annexation of the subject properties and application of MU zoning without additional transportation analysis, since this change is in conformance with the City's Comprehensive Plan and was anticipated under the city's Transportation System Plan. The subsequent Comprehensive plan amendment and zone change from Mixed-Use to Industrial zoning is also permissible since it will not result in significant impacts to the surrounding transportation system.

It should be noted that the above conclusion only addresses the impact of the proposed plan amendments. It is expected that a transportation impact study may still be required as part of any future application for redevelopment within the subject properties.

If you have any questions regarding this analysis, please feel free to contact me via email at mike.ard@gmail.com or via phone at 503-537-8511.

Appendix

Trip Generation Calculation Worksheet

Land Use Description: Multi-Family Housing (Low-Rise*)
ITE Land Use Code: 220
Independent Variable: Dwelling Units
Quantity: 15 Dwelling Units
Setting: General Urban/Suburban and Rural (Not Close to Rail Transit)

Summary of ITE Trip Generation Data

AM Peak Hour of Adjacent Street Traffic
Trip Rate: 0.40 trips per dwelling unit
Directional Distribution: 24% Entering 76% Exiting

PM Peak Hour of Adjacent Street Traffic
Trip Rate: 0.51 trips per dwelling unit
Directional Distribution: 63% Entering 37% Exiting

Total Weekday Traffic
Trip Rate: 6.74 trips per dwelling unit
Directional Distribution: 50% Entering 50% Exiting

Site Trip Generation Calculations

15 Dwelling Units

	Entering	Exiting	Total
AM Peak Hour	1	5	6
PM Peak Hour	5	3	8
Weekday	51	51	102

*"Low-Rise" applies to buildings with 2-3 floors.

Data Source: *Trip Generation Manual, 11th Edition* , Institute of Transportation Engineers, 2021

Trip Generation Calculation Worksheet

Land Use Description: Day Care Center
ITE Land Use Code: 565
Independent Variable: Gross Floor Area
Quantity: 5.00 Thousand Square Feet

Summary of ITE Trip Generation Data

AM Peak Hour of Adjacent Street Traffic
Trip Rate: 11.00 trips per ksf
Directional Distribution: 53% Entering 47% Exiting

PM Peak Hour of Adjacent Street Traffic
Trip Rate: 11.12 trips per ksf
Directional Distribution: 47% Entering 53% Exiting

Total Weekday Traffic
Trip Rate: 47.62 trips per ksf
Directional Distribution: 50% Entering 50% Exiting

Site Trip Generation Calculations

5.00 ksf Day Care Center

	Entering	Exiting	Total
AM Peak Hour	29	26	55
PM Peak Hour	26	30	56
Weekday	119	119	238

Data Source: *Trip Generation Manual, 11th Edition* , Institute of Transportation Engineers, 2021

Trip Generation Calculation Worksheet

Land Use Description: Medical-Dental Office Building

ITE Land Use Code: 730
Independent Variable: Gross Floor Area
Quantity: 5.000 Thousand Square Feet

Summary of ITE Trip Generation Data

AM Peak Hour of Adjacent Street Traffic
Trip Rate: 3.10 trips per ksf
Directional Distribution: 79% Entering 21% Exiting

PM Peak Hour of Adjacent Street Traffic
Trip Rate: 3.93 trips per ksf
Directional Distribution: 30% Entering 70% Exiting

Total Weekday Traffic
Trip Rate: 36.00 trips per ksf
Directional Distribution: 50% Entering 50% Exiting

Site Trip Generation Calculations

5.000 ksf Medical-Dental Office Building

	Entering	Exiting	Total
AM Peak Hour	13	3	16
PM Peak Hour	6	14	20
Weekday	90	90	180

Data Source: *Trip Generation Manual, 11th Edition* , Institute of Transportation Engineers, 2021

Trip Generation Calculation Worksheet

Land Use Description: Strip Retail Plaza (<40k)
ITE Land Use Code: 822
Independent Variable: Gross Floor Area
Quantity: 5.0 Thousand Square Feet

Summary of ITE Trip Generation Data

AM Peak Hour of Adjacent Street Traffic
Trip Rate: 2.36 trips per ksf
Directional Distribution: 60% Entering 40% Exiting

PM Peak Hour of Adjacent Street Traffic
Trip Rate: 6.59 trips per ksf
Directional Distribution: 50% Entering 50% Exiting

Total Weekday Traffic
Trip Rate: 54.45 trips per ksf
Directional Distribution: 50% Entering 50% Exiting

Site Trip Generation Calculations

5.0 ksf Strip Retail Plaza (<40k)

	Entering	Exiting	Total
AM Peak Hour	7	5	12
PM Peak Hour	17	16	33
Weekday	136	136	272

Data Source: *Trip Generation Manual, 11th Edition* , Institute of Transportation Engineers, 2021

Trip Generation Calculation Worksheet

Land Use Description: Fast-Food Restaurant w/o Drive Thru
ITE Land Use Code: 933
Independent Variable: Gross Floor Area
Quantity: 2.00 Thousand Square Feet

Summary of ITE Trip Generation Data

AM Peak Hour of Adjacent Street Traffic
Trip Rate: 43.18 trips per ksf
Directional Distribution: 58% Entering 42% Exiting

PM Peak Hour of Adjacent Street Traffic
Trip Rate: 33.21 trips per ksf
Directional Distribution: 50% Entering 50% Exiting

Total Weekday Traffic
Trip Rate: 450.49 trips per ksf
Directional Distribution: 50% Entering 50% Exiting

Site Trip Generation Calculations

2.00 ksf Fast Food Restaurant

	Entering	Exiting	Total
AM Peak Hour	50	36	86
PM Peak Hour	33	33	66
Weekday	450	450	900

Data Source: *Trip Generation Manual, 11th Edition* , Institute of Transportation Engineers, 2021

Trip Generation Calculation Worksheet

Land Use Description: General Light Industrial
ITE Land Use Code: 110
Independent Variable: Gross Floor Area
Quantity: 5.0 Thousand Square Feet

Summary of ITE Trip Generation Data

AM Peak Hour of Adjacent Street Traffic
Trip Rate: 0.74 trips per ksf
Directional Distribution: 88% Entering 12% Exiting

PM Peak Hour of Adjacent Street Traffic
Trip Rate: 0.65 trips per ksf
Directional Distribution: 14% Entering 86% Exiting

Total Weekday Traffic
Trip Rate: 4.87 trips per ksf
Directional Distribution: 50% Entering 50% Exiting

Site Trip Generation Calculations

5.0 ksf General Light Industrial

	Entering	Exiting	Total
AM Peak Hour	4	0	4
PM Peak Hour	0	3	3
Weekday	12	12	24

Data Source: *Trip Generation Manual, 11th Edition* , Institute of Transportation Engineers, 2021

Trip Generation Calculation Worksheet

Land Use Description: Industrial Park
ITE Land Use Code: 130
Independent Variable: Gross Floor Area
Quantity: 5.0 Thousand Square Feet

Summary of ITE Trip Generation Data

AM Peak Hour of Adjacent Street Traffic
Trip Rate: 0.34 trips per ksf
Directional Distribution: 81% Entering 19% Exiting

PM Peak Hour of Adjacent Street Traffic
Trip Rate: 0.34 trips per ksf
Directional Distribution: 22% Entering 78% Exiting

Total Weekday Traffic
Trip Rate: 3.37 trips per ksf
Directional Distribution: 50% Entering 50% Exiting

Site Trip Generation Calculations

5.0 ksf Industrial Park

	Entering	Exiting	Total
AM Peak Hour	2	0	2
PM Peak Hour	0	2	2
Weekday	8	8	16

Data Source: *Trip Generation Manual, 11th Edition* , Institute of Transportation Engineers, 2021

Trip Generation Calculation Worksheet

Land Use Description: Manufacturing
ITE Land Use Code: 140
Independent Variable: Gross Floor Area
Quantity: 5.000 Thousand Square Feet

Summary of ITE Trip Generation Data

AM Peak Hour of Adjacent Street Traffic
Trip Rate: 0.68 trips per ksf
Directional Distribution: 76% Entering 24% Exiting

PM Peak Hour of Adjacent Street Traffic
Trip Rate: 0.74 trips per ksf
Directional Distribution: 31% Entering 69% Exiting

Total Weekday Traffic
Trip Rate: 4.75 trips per ksf
Directional Distribution: 50% Entering 50% Exiting

Site Trip Generation Calculations

5.0 ksf Manufacturing

	Entering	Exiting	Total
AM Peak Hour	2	1	3
PM Peak Hour	1	3	4
Weekday	12	12	24

Data Source: *Trip Generation Manual, 11th Edition* , Institute of Transportation Engineers, 2021

Trip Generation Calculation Worksheet

Land Use Description: Warehousing
ITE Land Use Code: 150
Independent Variable: Gross Floor Area
Quantity: 5.000 Thousand Square Feet

Summary of ITE Trip Generation Data

AM Peak Hour of Adjacent Street Traffic
Trip Rate: 0.17 trips per ksf
Directional Distribution: 77% Entering 23% Exiting

PM Peak Hour of Adjacent Street Traffic
Trip Rate: 0.18 trips per ksf
Directional Distribution: 28% Entering 72% Exiting

Total Weekday Traffic
Trip Rate: 1.71 trips per ksf
Directional Distribution: 50% Entering 50% Exiting

Site Trip Generation Calculations

5.000 ksf Warehousing

	Entering	Exiting	Total
AM Peak Hour	1	0	1
PM Peak Hour	0	1	1
Weekday	4	4	8

Data Source: *Trip Generation Manual, 11th Edition* , Institute of Transportation Engineers, 2021

Trip Generation Calculation Worksheet

Land Use Description: Utility
ITE Land Use Code: 170
Independent Variable: Gross Floor Area
Quantity: 5.000 Thousand Square Feet

Summary of ITE Trip Generation Data

AM Peak Hour of Adjacent Street Traffic
Trip Rate: 2.33 trips per ksf
Directional Distribution: 87% Entering 13% Exiting

PM Peak Hour of Adjacent Street Traffic
Trip Rate: 2.16 trips per ksf
Directional Distribution: 18% Entering 82% Exiting

Total Weekday Traffic
Trip Rate: 12.29 trips per ksf
Directional Distribution: 50% Entering 50% Exiting

Site Trip Generation Calculations

5.0 ksf Utility

	Entering	Exiting	Total
AM Peak Hour	10	2	12
PM Peak Hour	2	9	11
Weekday	31	31	62

Data Source: *Trip Generation Manual, 11th Edition* , Institute of Transportation Engineers, 2021

Trip Generation Calculation Worksheet

Land Use Description: Specialty Trade Contractor
ITE Land Use Code: 180
Independent Variable: Gross Floor Area
Quantity: 5.000 Thousand Square Feet

Summary of ITE Trip Generation Data

AM Peak Hour of Adjacent Street Traffic
Trip Rate: 1.66 trips per ksf
Directional Distribution: 74% Entering 26% Exiting

PM Peak Hour of Adjacent Street Traffic
Trip Rate: 1.93 trips per ksf
Directional Distribution: 32% Entering 68% Exiting

Total Weekday Traffic
Trip Rate: 9.82 trips per ksf
Directional Distribution: 50% Entering 50% Exiting

Site Trip Generation Calculations

5.0 ksf Specialty Trade Contractor

	Entering	Exiting	Total
AM Peak Hour	6	2	8
PM Peak Hour	3	7	10
Weekday	25	25	50

Data Source: *Trip Generation Manual, 11th Edition* , Institute of Transportation Engineers, 2021

Trip Generation Calculation Worksheet

Land Use Description: Animal Hospital/Veterinary Clinic
ITE Land Use Code: 640
Independent Variable: Gross Floor Area
Quantity: 5.000 Thousand Square Feet

Summary of ITE Trip Generation Data

AM Peak Hour of Adjacent Street Traffic
Trip Equation: T = 4.07(X) - 2.48
Directional Distribution: 67% Entering 33% Exiting

PM Peak Hour of Adjacent Street Traffic
Trip Equation: T = 4.75(X) - 6.96
Directional Distribution: 40% Entering 60% Exiting

Total Weekday Traffic
Trip Equation: 21.50 trips per ksf
Directional Distribution: 50% Entering 50% Exiting

Site Trip Generation Calculations

5.0 ksf Animal Hospital/Veterinary Clinic

	Entering	Exiting	Total
AM Peak Hour	12	6	18
PM Peak Hour	7	10	17
Weekday	54	54	108

Data Source: Trip Generation Manual, 11th Edition, Institute of Transportation Engineers, 2021

Trip Generation Calculation Worksheet

Land Use Description: Research and Development Center
ITE Land Use Code: 760
Independent Variable: Gross Floor Area
Quantity: 5.000 Thousand Square Feet

Summary of ITE Trip Generation Data

AM Peak Hour of Adjacent Street Traffic
Trip Rate: 1.03 trips per ksf
Directional Distribution: 82% Entering 18% Exiting

PM Peak Hour of Adjacent Street Traffic
Trip Rate: 0.98 trips per ksf
Directional Distribution: 16% Entering 84% Exiting

Total Weekday Traffic
Trip Rate: 11.08 trips per ksf
Directional Distribution: 50% Entering 50% Exiting

Site Trip Generation Calculations

5.000 ksf Research and Development Center

	Entering	Exiting	Total
AM Peak Hour	4	1	5
PM Peak Hour	1	4	5
Weekday	28	28	56

Data Source: *Trip Generation Manual, 11th Edition* , Institute of Transportation Engineers, 2021

Trip Generation Calculation Worksheet

Land Use Description: Automobile Care Center
ITE Land Use Code: 942
Independent Variable: Gross Floor Area
Quantity: 5.0 Thousand Square Feet

Summary of ITE Trip Generation Data

AM Peak Hour of Adjacent Street Traffic
Trip Rate: 2.25 trips per ksf
Directional Distribution: 66% Entering 34% Exiting

PM Peak Hour of Adjacent Street Traffic
Trip Rate: 3.11 trips per ksf
Directional Distribution: 48% Entering 52% Exiting

Total Weekday Traffic
Trip Rate: N/A trips per ksf
Directional Distribution: 50% Entering 50% Exiting

Site Trip Generation Calculations

5.0 ksf Automobile Care Center

	Entering	Exiting	Total
AM Peak Hour	7	4	11
PM Peak Hour	8	8	16
Weekday	N/A	N/A	N/A

Data Source: *Trip Generation Manual, 11th Edition* , Institute of Transportation Engineers, 2021